BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE	
APPLICATION OF THE FUEL ADJUSTMENT	
CLAUSE OF EAST KENTUCKY POWER	
COOPERATIVE, INC. FROM NOVEMBER 1,	
2020 THROUGH OCTOBER 31, 2022	

CASE NO. 2023-00009

)))

))

RESPONSES TO STAFF'S SECOND INFORMATION REQUEST

TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED OCTOBER 5, 2023

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE) APPLICATION OF THE FUEL ADJUSTMENT) CLAUSE OF EAST KENTUCKY POWER) COOPERATIVE, INC. FROM NOVEMBER 1,) 2020 THROUGH OCTOBER 31, 2022)

CASE NO. 2023-00009

CERTIFICATE

STATE OF KENTUCKY)) COUNTY OF CLARK)

Chris Adams, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated October 5, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Chris adams

Subscribed and sworn before me on this <u>19th</u> day of October, 2023.

Millelley Notary Public

GWYN M. WILLOUGHBY Notary Public Commonwealth of Kentucky Commission Number (YYNP38003 My Commission Expires Nov 30, 2025

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE) APPLICATION OF THE FUEL ADJUSTMENT) CLAUSE OF EAST KENTUCKY POWER) COOPERATIVE, INC. FROM NOVEMBER 1,) 2020 THROUGH OCTOBER 31, 2022)

CASE NO. 2023-00009

CERTIFICATE

STATE OF KENTUCKY)) COUNTY OF CLARK)

Darrin Adams, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated October 5, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Darrin adams

GWYN M. WILLOUGHBY Notary Public Commonwealth of Kentucky Commission Number KYNP38003 Ay Commission Expires Nov 30, 2025

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE) APPLICATION OF THE FUEL ADJUSTMENT) CLAUSE OF EAST KENTUCKY POWER) COOPERATIVE, INC. FROM NOVEMBER 1,) 2020 THROUGH OCTOBER 31, 2022)

CASE NO. 2023-00009

CERTIFICATE

STATE OF KENTUCKY)) COUNTY OF CLARK)

Michelle K. Carpenter, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated October 5, 2023, 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.

Michelle K. Carpenter

Notary Public GWYN M. WILLOUGHBY Notary Public Commonwealth of Kentucky Commission Number KYNP38003 My Commission Expires Nov 30, 2025

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE) APPLICATION OF THE FUEL ADJUSTMENT) CLAUSE OF EAST KENTUCKY POWER) COOPERATIVE, INC. FROM NOVEMBER 1,) 2020 THROUGH OCTOBER 31, 2022)

CASE NO. 2023-00009

CERTIFICATE

STATE OF KENTUCKY)) COUNTY OF CLARK)

Mark Horn, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's Second Request for Information in the above-referenced case dated October 5, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Mark Horn

Subscribed and sworn before me on this <u>19th</u> day of October, 2023.

Notary Public

GWYN M. WILLOUGHBY Notary Public Commonwealth of Kentucky Commission Number KYNP38003 My Commission Expires Nov 30, 2025

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE) APPLICATION OF THE FUEL ADJUSTMENT) CLAUSE OF EAST KENTUCKY POWER) COOPERATIVE, INC. FROM NOVEMBER 1,) 2020 THROUGH OCTOBER 31, 2022)

CASE NO. 2023-00009

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 Commission Staff's Second Request for Information in the above-referenced case dated October 5, 2023, 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 Tucker

Millelloy lotary Public GWYN M. WILLOUGHBY Notary Public Commonwealth of Kentucky Commission Number KYNP38003 My Commission Expires Nov 30, 2025

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 1 RESPONSIBLE PARTY: Julia J. Tucker

<u>Request 1.</u> Refer to the Direct Testimony of Julia J. Tucker (Tucker Direct Testimony), page 2, lines 18–19. Provide greater detail on the stakeholder concerns referenced in the testimony and the various changes implemented by PJM to address those stakeholder concerns.

<u>Response 1.</u> The most significant changes to the PJM market rules are those that required approval by the Federal Energy Regulatory Commission (FERC) and have or will go into effect after the period of review. Those include:

• FERC approved changes to PJM's reserve markets, consolidating Tier 1 and Tier 2 synchronized reserves, aligning day-ahead and real-time reserve products, imposing penalties for non-performance. The changes went into effect on October 1, 2022. The changes had been driven by concerns that the current reserve construct did not fully value and incent reserves needed as generation availability becomes increasingly unpredictable with increasing penetration of intermittent resources (reliant on the sun or wind and multiple resources can be out when the fuel is not available) and an increasing amount of behind-the-meter resources make demand levels increasingly unpredictable. [FERC Docket No. EL19-58-000]

Page 2 of 4

- FERC approved revisions to PJM's ARR/FTR market that resulted from an extensive stakeholder deliberation of the report issued by London Economics International detailing recommendations stemming from LEI's comprehensive review. The FERC approved changes that affect the rules for cost based energy offers. Generators must submit cost based offers that are consistent with their fuel cost policy. Generators are dispatched on their cost based offer if they are needed to relieve a transmission constraint and market power mitigation rules are triggered. The changes (1) require the costs included in the unit owner's Fuel Cost Policy to be "verifiable and systematic", and (2) clarify when a penalty may be assessed for not complying with the Fuel Cost Policy.
- The FERC also approved changes pertaining to how the rules for imposing a transmission constraint penalty factor are applied to a specific transmission constraint in the Dominion transmission zone. FERC approved PJM not applying the transmission constraint penalty factor during the time needed to finish constructing the Lanexa-Dunnsville-Northern Neck line because the price signal that would result is not able to be responded to because there is no additional generation available to resolve that constraint. [EL22-957-000] Those changes went into effect February 18, 2022.
- On 11/29/2022 FERC issued an order in Docket ER22-2110 accepting PJM's Interconnection process reform filing. The filing transitions the interconnection queue process from a "first-come, first-served" queue approach to a "first-ready, first-served" cycle approach.
- On 7/28/23 FERC issued Order No. 2023 from Docket No. RM22-14, "Improvements to Generator Interconnection Procedures and agreements". This order consistent with PJM's

PSC Request 1 Page 3 of 4

queue reform in Docket ER22-2110 also establishes firm study deadlines and impose delay penalties when transmission providers fail to meet interconnection study deadlines. PJM has sought rehearing of the study delay penalty provisions, and has sought clarification or rehearing of other aspects of Order No. 2023.

- On 7/28/2023 FERC approved a change to Performance Assessment Interval (PAI) triggers for the 2023/24 and 2024/25 Delivery years. The revisions require a Primary reserve shortage coupled with a voltage reduction warning to trigger a PAI for certain Emergency actions.
- On 9/20/2023 The PJM Members Committee endorsed changes to the Peak Market Activity (PMA) credit requirements and early payment provisions. The new requirement will allow the credit requirement to adjust more frequently, reducing the duration of increases in the requirement driven by elevated price exposure. This change will require FERC approval of the tariff changes.
- On 10/13/2023 PJM filed in Docket ER24-98 reforms to Capacity Performance including setting the Stop-Loss Limit at 1.5 x BRA clearing price for the delivery year, eliminating bonus compensation for uncommitted capacity, clarifies excusals from PAI charges and changes to the Market Seller Offer Price (MSOC). Also on 10/13/2023 PJM filed in Docket ER24-99 a change from the current UCAP accreditation to a capacity accreditation process of marginal ELCC for Demand Response and Thermal resources, and proposes generator capacity capability test to be conducted in both the summer and winter seasons. Both of these Capacity Market filings aim for implementation beginning with the 2025/26 BRA scheduled for June 2024. PJM requested an effective date of 12/12/2023 for both filings.

The PJM stakeholders are discussing other potential changes to the PJM markets. Current discussions include:

- Outage Coordination [PJM Operating Committee] (At the 10/25/23 MRC for endorsement)
- Procurement of Clean Resource Attributes [Clean Attribute Procurement Senior Task Force] (Will be sunset. NJ BPU staff launching a forward energy attribute market working group to have market design proposal by 12/31/23.)
- Critical Gas Infrastructure DR Participation [Demand Response Subcommittee] (following winter storm Uri, a lesson learned was that gas infrastructure should not be curtailed as demand response in the electricity market)
- Capacity Market Reform [Resource Adequacy Senior Task Force] (CIFP PJM Filing 10/13/23, see above)
- Natural Gas and Electric Market Coordination [Electric Gas Coordination Senior Task Force] (Multiple packages to be voted on after the 10/18/2023 meeting of the task force.)
- Operating Reserve Demand Curve and Transmission Constraint Penalty Factor [Energy Price Formation Senior Task Force]

Moreover, changes to the generation mix will have an impact on PJM's electricity markets.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 2 RESPONSIBLE PARTY: Julia J. Tucker

Request 2.Refer to Tucker Direct Testimony, page 2, lines 22–24 and page 3, lines 1–4 and to EKPC's response to Commission Staff's First Request for Information (Staff's First Request), Item 8.

Request 2a. Explain the meaning of "implied heat rate" and how that was used to determine the purchase of forward energy products.

Response 2a. EKPC receives a daily update of Forward Market Prices, and more specifically prices at the AD Hub. The AD Hub is the AEP Dayton Hub, which is the closest liquid trading hub to the EKPC load zone. On October 18, 2023, the expected natural gas price for January 2024 was \$3.72/mmbtu. The expected price for a 5 x 16 energy purchase (5 days per week for 16 peak hours per day) at the AD Hub is \$64.20/MWh. An estimation of the implied heat rate would be 64.20/3.72 x 1000 for a heat rate of 17,258 btu/kWh. EKPC's combustion turbine fleet averages significantly below this heat rate, closer to the 13,000 btu/kWh range. Therefore, it might be more economic to purchase gas to be burned in the combustion turbines to

serve peak energy during January as opposed to purchasing energy. The amount of time that the gas turbine or the energy product are expected to be needed also come into account in the final determination. As an example, if EKPC determined that it needed the energy for 8 hours per day for 20 days in January, then it could buy gas at \$3.72/mmbtu and burn it in the combustion turbines with an average heat rate of 13,000 btu/kWh for a cost of \$48.36/MWh. If it purchased the energy strip, then it would cost \$64.20/MWh plus the energy would have to be purchased for 16 hours for each day. The total cost to serve with gas would be 8 hrs/day x 20 days x \$48.36/MWh for a cost of \$7,737.60 per MW. The total cost to serve with an energy strip would be 8 hrs/day x 20 days x \$64.20/MWh for a cost of \$10,272.00 per MW. The gas purchase would be more economic by \$2,534.40 per MW. Additionally, the energy purchase has to be taken for 16 hours per day regardless of need, so the additional 8 hours of energy might or might not be economic for a sale back into the real time market.

Request 2b. Provide a comparison of hedged forward gas prices to the generation cost and to the forecast energy prices.

<u>Response 2b.</u> When markets are efficient, then the expected energy strip prices more closely reflect the incremental cost to produce energy at the stated gas price. The current January market example used in Response 2a reflects some uncertainty and scarcity in the market expectation, but is much more reasonable than what was occurring in the market in 2022. The quotes for the November 2023 prices published on the same day as the previous example show a gas price of \$3.11/mmbtu and a 5x16 energy purchase price of \$41.10/MWh. The implied heat

rate for November 2023 is 41.10/3.11 = 13,215 btu/kWh. These price more closely reflect the expected costs of running combustion turbines. EKPC expected the market to revert back to more normal expectations once the extreme uncertainty was alleviated and it appears to have done so. Buying forward physical gas will always help secure price certainty for EKPC's load, but whether or not it is economically advantageous could differ depending on the market price for energy hedges.

Request 2c. Explain whether the EKPC has continued to purchase either forward natural gas or forward energy products beyond the time period of this review.

Response 2c. Yes, EKPC has continued to purchase forward natural gas deliveries and forward energy products for the upcoming winter season. EKPC has purchased forward natural gas deliveries for the months of June 2023 through February 2024. EKPC has also purchased forward energy products for October through December 2023, during generation maintenance season.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 3 RESPONSIBLE PARTY: Julia J. Tucker

Request 3. Refer to Tucker Direct Testimony page 5, line 2. Explain why Bluegrass 2, Cooper 1, and Smith 9 and 10 can be offered into PJM at EKPC's discretion and are not obligated in PJM's Reliability Pricing Model.

<u>Response 3.</u> The Bluegrass 2, Cooper 1, and Smith 9 and 10 units are not obligated in the PJM capacity market in the current delivery year, therefore they are not obligated to offer energy into the PJM energy market on a daily basis. All of the units have cleared the PJM capacity market previously and are recognized as available resources to provide energy to the PJM energy market, but they are not obligated to do so since they are not currently committed in the PJM capacity market. That obligation can change from delivery year to delivery year depending on the clearing price of the capacity market.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 4 RESPONSIBLE PARTY: Julia J. Tucker

Request 4. Refer to Tucker Direct Testimony page 5, line 3–5. Explain instances in which EKPC would describe the availability of a unit as "partially available with partial derate".

<u>Response 4.</u> Units can be partially derated due to mechanical maintenance needs or limitations. For example, a coal pulverizer could be out of service for maintenance or unexpected reasons, the unit could still operate but at a reduced level of output because not as much coal is available to power the unit as would be if all pulverizers were available. It is not unusual for maintenance to be performed on units during off peak periods while they are still online, they might incur a partial derate during that time period.

PSC Request 5 Page 1 of 1

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 5 RESPONSIBLE PARTY: Chris Adams

Request 5.Refer to Tucker Direct Testimony page 5, lines 21–23. Provide the July2023 report as referenced.

Response 5. Please see attached report subject to motion for confidential treatment.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 6 RESPONSIBLE PARTY: Mark Horn

Request 6. Refer to the Direct Testimony of Mark Horn (Horn Direct Testimony), page 3, line 23, and page 4, lines 1–2. Explain if the agreement was made in the form of an amended contract and confirm whether that agreement was filed with the Commission.

Response 6. The initial agreement was in the form of a Settlement Agreement & Mutual Release (the "Settlement Agreement"). The Settlement Agreement defines a new coal supply agreement as the agreed to remedy. The new coal supply agreement was executed in June 2023. The agreement is detailed further in Response 12 below. Yes, all of EKPC's coal supply agreements have been filed with the Commission.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 7 RESPONSIBLE PARTY: Mark Horn

<u>Request 7.</u> Refer to Horn Direct Testimony, page 5, lines 7–9. Explain if, during the two-year period under review, EKPC was forced to secure short-term incremental spot coal tons to mitigate the impacts of coal supplier shortfalls of tons. If so, then:

Response 7. During the two-year period under review, EKPC was able to secure shortterm incremental spot coal tons to mitigate the impacts of coal supplier shortfalls of tons, which were exacerbated by an additional need for coal identified in 2022. The increased projected coal burn was largely due to the increase in natural gas prices that had not been reflected in the forward curve.

Request 7a.Provide the instances during the two-year period under review in whichEKPC was forced to secure short-term incremental spot coal tons to mitigate the impacts ofcoal suppliers' shortfalls of tons.

Page 2 of 3

Response 7a. During the two-year period under review EKPC secured short-term incremental spot coal tons to mitigate the impacts of coal suppliers' shortfalls of tons and an increase in the projected burn at Spurlock Power Station ("Spurlock"). Short-term incremental spot coal tons at Spurlock were secured as coal supply agreements that include Purchase Order Nos. 51628, 51629, 51630, 51631, 51637, 51638, 51641, 51642, 51646, 51647, 51649, and 51659 that were procured as Emergency Spot purchases due to the limited availability of coal and limited timeframe to secure the coal tons. In addition, Purchase Order Nos. 51644, 51652, 51653, 51655, and 51656 were executed as Traditional Spot purchases using the standard procurement procedures as market volatility was declining and the availability of coal had increased.

<u>Request 7b.</u> Explain if the need to secure short-term incremental spot coal tons to mitigate the impacts of coal supplier shortfalls of tons increased the fuel related costs passed through the Fuel Adjustment Clause (FAC).

<u>Response 7b.</u> EKPC's need to secure short-term incremental spot coal tons to mitigate the impacts of coal supplier shortfalls and cover the increased projected coal burn did increase the fuel-related costs passed through the Fuel Adjustment Clause (FAC) because the spot price of coal was higher than the committed coal tons that had been layered in as a hedge. The coal market experienced extreme volatility on a global level in 2022. EKPC's hedging policy was paramount in stabilizing the coal cost, as much as possible, by the coal suppliers that did perform according to the coal supply agreements. The forward curve for EKPC's committed coal tons price and average coal stockpile price indicate a decline as the market stabilizes and prices soften.

<u>Request 7c.</u> Explain if EKPC sought to recoup the increased fuel related costs from the coal supplier due to the supplier's failure to fulfill its coal supply requirements.

Response 7c. Even though the coal supplier had declared an Event of Force Majeure, EKPC has sought to recoup the increased fuel-related costs from the coal supplier at Spurlock that failed to fulfill its coal supply requirements because the supply agreements were not mine specific. In the interest of the end-user, a Settlement Agreement and Mutual Release was reached and became effective as of May 10, 2023.

PSC Request 8 Page 1 of 2

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 8 RESPONSIBLE PARTY: Mark Horn

<u>Request 8.</u> Refer to Horn Direct Testimony, page 6, lines 5–9.

<u>Request 8a.</u> Explain the meaning of "hedge range."

Response 8a. EKPC has a ladder-type coal hedging policy for the current and three (3) forward years, where the percentage of fully-hedged coal tons step down in each forward year. The percentage is the sum of the committed tons and incremental physical inventory divided by the projected burn. Each calendar year has specific percent range for how much coal is to be fully hedged. As a hypothetical example for illustrative purposes only, the range for the current calendar year for Spurlock could be 60% to 100%. The prompt and each subsequent year would have a unique range, whereas the range steps down as the years step out. Ideally, EKPC has significantly more fully-hedged coal in the current year than three years from now.

Request 8b.When spot coal is readily available at a lower price, explain the meaning ofEKPC targeting the lower end of the hedge range.

PSC Request 8

Page 2 of 2

Response 8b. Using the previous example hedge range of 60% to 100%, if the coal market is stable and ample coal is available to purchase at a favorable price, EKPC may have targeted 70% to 75%. This allows EKPC to stay compliant with the hedge range, but to also have the opportunity to go into the market to dilute the committed price if the spot coal market is on a downward trend. Having reliable market intelligence and understanding multiple fuel and energy market drivers to have the correct hedge position can benefit the end-user by getting the least cost.

<u>Request 8c.</u> Because the spot coal market is becoming shallower, explain the meaning of EKPC targeting the upper end of the hedge range.

<u>Response 8c.</u> Using the same previous example hedge range of 60% to 100%, if the coal market is volatile and nearly illiquid, which puts upward pressure on price, EKPC may target nearly 100% if possible. This allows EKPC to stay compliant with the hedge range but also have the discipline not to over-buy or over-hedge if the spot coal market is on an upward trend.

PSC Request 9 Page 1 of 2

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 9 RESPONSIBLE PARTY: Mark Horn

Request 9.Refer to Horn Direct Testimony, page 6, lines 5–6 and EKPC's response toStaff's First Request, Item 1.

Request 9a. Explain whether there are long term contracts available for the Cooper station or whether EKPC seeks spot market coal only.

<u>Response 9.</u> a. EKPC does not have long-term coal supply contracts in place for Cooper Power Station ("Cooper"). EKPC seeks spot market coal only for Cooper. This is due to plant optimization; whereas, the plant provides a hedge to the PJM energy market, and the end-user benefits from the least cost. Cooper has an intermittent dispatch within PJM and only runs when needed. EKPC does maintain a larger physical inventory of coal at Cooper to mitigate supply chain or logistical issues. Spot coal is procured for Cooper on an as-needed basis. There is a physical limit of how much coal can safely be stored at Cooper or any other power plant. This procurement strategy reduces the risk of the physical coal inventory

PSC Request 9

Page 2 of 2

growing so large that Cooper runs uneconomically just to burn coal in order to reduce the physical coal inventory.

<u>Request 9b.</u> Explain whether the turbine overhaul for Cooper 2 has been completed.

<u>Response 9b.</u> The turbine overhaul of EKPC Cooper 2 has been completed.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 10 RESPONSIBLE PARTY: Mark Horn

<u>Request 10.</u> Refer to Horn Direct Testimony, page 6, line 14.

Request 10a. Provide the meaning of "Traditional Spot", "Emergency Spot", "Economy Spot", and "Test Spot".

Response 10. a. Spot purchases are non-contract supply agreements that permit EKPC to purchase coal at a specific rate for a defined term, typically one year or less. Spot purchases allow EKPC the flexibility to respond quickly and efficiently to inventory needs while remaining in compliance with EKPC policy. There are four types of spot purchases including (1) *Traditional*, (2) *Economy*, (3) *Emergency*, and (4) *Test* spot purchases. *Traditional* spot purchases are subject to the competitive bidding process, are initiated with either a written or verbal Request for Proposal ("RFP"), and are typically made for a term of one year or less. This is the most common type of spot purchase and is typically based on the long-term future burns projection. *Economy, Emergency,* and *Test* spot purchases do not require competitive bidding, are typically a shorter-term than traditional spot, and may need to be executed timely within hours. Any spot purchase

PSC Request 10

Page 2 of 4

that is not subject to the competitive bidding process must have an identifiable trigger such as, but not limited to the following: time being of the essence, low physical inventory, near-illiquid market conditions, hedge optimization, change in legislation, governmental imposition, Force Majeure Event, breach of contract, or the need for transportation flexibility. The option of making Economy, Emergency, and Test spot purchases must be approved in writing by the Senior Vice President, Power Supply, or Executive Vice President/Chief Operating Officer prior to negotiating proposals. Economy, Emergency, and Test spot purchases will be subject to the standard approval process and levels as detailed in Policy No. 404 or Policy No. A031 prior to execution of the shortterm purchase order. Economy, Emergency, and Test spot purchases may involve specific needbased circumstances. All purchases are made in accordance with Policy, Strategy, and Procedure. Historically, the most common type of spot coal purchase for EKPC has been a Traditional Spot Purchase, which consists of the fair competitive bidding process that is initiated with a written or verbal RFP. This process may take weeks, but can take months before the coal supply agreement is fully executed. This is not an issue when coal is readily available and there is considerable lead time prior to the beginning of the term. Currently, with a volatile and nearly illiquid coal market, time is of the essence. Therefore, coal supply agreements need to be fully executed expeditiously or the coal may no longer be available. With spot coal in limited supply and with high domestic and international demand, a coal supply agreement may need to be fully executed within hours, or the coal is at risk of being sold to another party. This immediate need for spot coal has recently lead EKPC to utilize more Emergency Spot Purchases and Test Spot Purchases to secure that coal supply in an effort to match the increased coal burn or simply to maintain compliance with physical coal inventory target levels.

Page 3 of 4

The primary difference between Traditional Spot Purchases, Economy, Emergency Spot Purchases, and Test Spot Purchases is that only the Traditional Spot is competitively bid; therefore, generating a bid tabulation sheet (evaluation). A Traditional Spot Purchase is made with the competitive bidding process, initiated with a written or verbal RFP. Economy Spot and Emergency Spot Purchases are made without competitive bidding when there is an immediate opportunity or need for coal in situations such as failure of coal supplier to perform, increased fuel usage, labor or transportation strikes, severe weather conditions, or the inability to receive fuel by normal means. A Test Spot Purchase is made without competitive bidding to test a supplier's performance or test a particular fuel for its suitability and burning characteristics at a power station (limited to a quantity of 25,000 tons). The Traditional Spot Purchase is a procurement process substantially similar to how EKPC executes a coal supply contract. Traditional Spot Purchases and contracts are competitively bid and initiated with a formal RFP; however, the contract will have a longer term and will require more extensive physical and financial due diligence regarding the supplier.

Request 10b. Explain how often during the two-year period under review that EKPC executed Economy Spot supply agreements.

Response 10b. During the two-year period under review EKPC did not execute purchase orders characterized as Economy Spot supply agreements.

PSC Request 10

Page 4 of 4

<u>Request 10c.</u> For the two-year period under review, for each spot market purchase made for the Cooper and Spurlock units characterize each spot purchase as Traditional Spot, Emergency Spot, Economy Spot, and Test Spot.

Response 10c. For the two-year period under review each spot purchase made at Cooper and Spurlock is characterized as the following: Traditional Spot Purchase Order Nos. 51603, 51604, 51605, 51611, 51612, 51622, 51634, 51635, 51639, and 51640; Emergency Spot Purchase Order Nos. 51613, 51619, 51626, 51627, 51658, 51660, and 51661; Test Spot Purchase Order Nos. 51602 and 51616. As previously stated, there were no Economy Spot Purchase Orders executed during the two-year period under review.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 11 RESPONSIBLE PARTY: Julia J. Tucker

<u>Request 11.</u> Refer to Horn Direct Testimony, page 8, lines 5–10. Explain the timeline and decision process for putting a coal unit in reserve shutdown and then after a period of time, bringing the unit back online. Include in the response the operational aspects of having the unit stop consuming coal and then warming the unit up to the point where it can be put online.

Response 11. The coal units are dispatched by PJM when economically feasible or when needed for grid reliability. The coal units can also be self-scheduled by EKPC to hedge market volatility, preparation for inclement weather, or coal pile management. The timeline and decision process to bring a unit online if PJM dispatches the unit is immediate. PJM has made the decision and EKPC follows the dispatch schedule. If EKPC is considering self-scheduling a unit for market volatility or inclement weather, EKPC will evaluate market price forecasting compared to the cost of operating the unit, and estimate if the unit will operate at a profit or loss. This information is then weighed against the level of risk by not running the unit and a decision is made. This process can take anywhere from one to twelve hours. Coal pile management is a safety concern. When the coal inventory becomes too large, conditions become unsafe for plant personnel to operate the

PSC Request 11

Page 2 of 2

heavy equipment to manage the coal pile. EKPC will attempt to run the unit when economically viable, but personnel safety takes precedence. This decision can take anywhere from one to twelve hours.

Coal consumption is reduced at a manageable rate when a coal unit is shutting down in order to shut down peripheral equipment in a safe and controlled manner. Coal consumption is immediately stopped just before the unit goes offline. This process can take approximately one to three hours. Startup time for the EKPC coal units from a cold state can take approximately ten to twenty-two hours in order to warm the boiler tubing, steam piping, peripheral equipment, turbine casing, and turbine rotor. The amount of time depends on the size of the unit and unit technology type. If the unit is already warm the startup time is reduced.

PSC Request 12 Page 1 of 2

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 12 RESPONSIBLE PARTY: Mark Horn

Request 12. Refer to EKPC's response to Staff's First Request, Item 2. Foresight Coal Sales appears to have trouble fulfilling its contract obligations.

<u>Request 12a.</u> Explain whether the required tonnage has been made up.

<u>Response 12a.</u> To date, all of the required tonnage has not been made up, but an agreement is in place as a remedy. Foresight Coal Sales ("Foresight") is currently meeting the monthly schedules.

<u>Request 12b.</u> Explain whether Foresight Coal Sales' issues have been resolved.

<u>Response 12b.</u> Foresight still has a large long-wall coal mine that has not returned to operation. The issue with Foresight's tonnage shortfalls has been addressed, and a remedy to resolve is in place. A Confirmatory Letter was signed on June 16, 2022, to address the tonnage

shortfall from 2021 and to establish an agreeable schedule for the balance of 2022. A Settlement Agreement and Mutual Release was reached and became effective as of May 10, 2023, to address the tonnage shortfall from 2022 and the balance of deliveries for 2023 and 2024. The shortfall from 2021 will only be shipped as make-up following the reopening of the M-Class Mining Section of the Sugar Camp MC#1 Mine. A new coal supply agreement was executed in June 2023 to secure the make-up tons for the current tonnage shortfall and incremental tons at a price significantly below the market price for delivery in 2025.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 13 RESPONSIBLE PARTY: Mark Horn

<u>Request 13.</u> Refer to EKPC's response to Staff's First Request, Item 3. Explain the reasons EKPC expects the coal inventory levels at both Cooper and Spurlock to possibly increase above inventory targets.

Response 13. The coal inventory levels at both Cooper and Spurlock could possibly increase above inventory targets looking at the next 12 months following October 31, 2022. The primary reason would be that actual and projected burn have decreased. Other than Winter Storm Elliott in December 2022, the 2022/2023 winter was relatively mild allowing coal inventory to grow. The 2023 summer has not been extremely hot for this area placing additional coal into inventory. With natural gas prices now lower than they were when some of the spot coal was procured, the projected burn has decreased and some of that coal will go into inventory as well. With extreme market volatility and supplier shortfalls experienced in recent years, an increase physical inventory on-site mitigates a number of supply chain risks. Note that a change in projected burn that causes the physical coal inventory to increase above inventory targets is not a compliance violation per the Board Policy, it is simply a deviation that is reported along with a

PSC Request 13

Page 2 of 2

plan to return to the inventory target range. Shortly after the September 6, 2023, responses, EKPC's Board authorized a temporary increase to the upper limit on the physical coal inventory through calendar year 2024.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 14 RESPONSIBLE PARTY: Mark Horn

Request 14. Refer to EKPC's response to Staff's First Request, Item 4, pages 2 and 3. Explain whether the solicitation requested 140,000 tons for Cooper station and EKPC purchased the amount shown on page 3.

Response 14. With the volatility of the coal and natural gas market that was experienced between January 2022 and October 2022, the projected burn for Cooper Power Station ("Cooper") changed dramatically for the balance of 2022 and calendar year 2023 from the time the written Request for Proposal ("RFP") was issued to the time it was received, opened, and evaluated. Cooper requires a high quality Central Appalachian coal that has a limited number of suppliers within the available trucking radius. These coal suppliers typically cannot produce a large quantity of coal in a short period of time, should the need arise. EKPC's actual purchases exceeded the solicitation request quantity of 140,000 tons for Cooper because the coal needs for Cooper changed between the time the written RFP was issued and the time the proposals were received and opened, therefore EKPC secured additional tons to be in alignment with the most current projected burn.

PSC Request 15 Page 1 of 2

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 15 RESPONSIBLE PARTY: Mark Horn

Request 15. Refer to EKPC's response to Staff's First Request, Item 4, pages 8 and 9.

Request 15a. Explain why the first vendor on page 8 was not awarded a contract but was awarded a contract on page 9.

Response 15a. EKPC was active in the spot coal market with written Request for Proposals ("RFP") seeking spot coal for Unit Nos. 1 and 2 at Spurlock Power Station ("Spurlock") and seeking spot coal for Gilbert Unit No. 3 and Unit No. 4 at Spurlock. These units have a different design and require a different coal specification in terms of quality. The vendor in question had a total of 100,000 tons of coal available to sale but bid on both RFPs. The coal supply agreement recommended on page 9 was executed as Purchase Order ("PO") No. 51653 which is shown on page 8. The coal is currently being delivered at a rate of 12,500 tons per month over a term of 8 months.

Page 2 of 2

Request 15b. Explain why EKPC is test burning the third vendor's coal at the price listed on page 8, instead of test burning what appears to be the same coal from the same vendor at a lower price listed on page 9.

Response 15b. EKPC was testing coal from the third vendor shown on page 8 from a prior RFP that was issued on June 21, 2022. This vendor is shown as "Recommended" on the Fuel Evaluation for Spurlock as shown on page 6. That supplier actually failed multiple aspects of the "test," and the supply agreement was terminated by EKPC. Additional coal was not procured from this vendor as reflected on the Fuel Evaluations for Spurlock on page 8 and 9. Page 8 does show that coal from the vendor is delivering on a "test" purchase order.

PSC Request 16 Page 1 of 1

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 16 RESPONSIBLE PARTY: Mark Horn

<u>Request 16.</u> Refer to EKPC's response to Staff's First Request, Item 5, page 2.

<u>Request 16a.</u> Explain the reasons for the emergency purchases.

<u>Response 16a.</u> The emergency responses were made because immediate responses were required to maintain a physical coal inventory at the generating facilities as the coal market was nearly illiquid. Coal supply availability became extremely limited causing the procurement process timeline to become compressed. When emergency coal purchases were made, it was because agreements had to be executed expeditiously or risk losing the coal supply to the volatile market.

<u>Request 16b.</u> For each listed purchase, provide the actual characteristics of the coal purchased, the origin, supplier and the delivered price per ton and price per MMBtu.

Response 16b. Please see attached document, "2023-00009 DR2 16b.pdf".

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 17 RESPONSIBLE PARTY: Mark Horn

Request 17. Refer to EKPC's response to Staff's First Request, Item 6. Explain whether the instances when EKPC purchased forward natural gas is included in the response.

Response 17. Yes, the one instance when EKPC purchased physical forward natural gas during the two-year period under review is included in the response as Spot. EKPC defines Spot as typically having a term of 7 days or less. EKPC defines Forward as typically having a term of 1 year or less. EKPC views Spot and Contract differently, based on the Term. A natural gas Contract is understood to be a multi-year supply agreement, which it does not currently have, due to the intermittent nature of EKPC's Simple-Cycle Combustion Turbine natural gas generating assets.

PSC Request 18 Page 1 of 2

EAST KENTUCKY POWER COOPERATIVE, INC. CASE NO. 2023-00009 SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 18 RESPONSIBLE PARTY: Julia J. Tucker

Request 18. Refer to EKPC's response to Staff's First Request, Item 12.

Request 18a. For each capacity purchase, explain the reasons for the purchase and the purchase price. If any purchase is related to an outage, provide a cross reference to the outage.

Response 18a.

Exelon Generation Company, LLC74 MW Capacity11/6/2021 - 5/31/2022Purchased for \$14/MW-day due to JK Smith 9 forced outage.

Dynegy Marketing and Trade, LLC73.1 MW Capacity6/1/2022 - 7/31/2022Purchased for \$35/MW-day due to JK Smith 9 forced outage.

Dynegy Marketing and Trade, LLC60 MW Capacity6/1/2022 - 12/31/2022Purchased for \$35/MW-day to remove Bluegrass 3 from the PJM capacity market.

<u>Request 18b.</u> For each energy purchase, explain the reason for the energy purchase and the actual amount of energy in MWh taken over the contract period.

Response 18b.

SEPA Up to 170 MW Energy	01/01/2021 - 12/31/2022	378,838 MWh
Long term contract with Southeastern Power Association		
Shell Energy North America 75 MW Energy Hedge against potentially volatile market pr		/2021 6,000 MWh
Shell Energy North America 75 MW Energy Hedge against potentially volatile market pr		/2021 6,000 MWh
Shell Energy North America 50 MW Energy Hedge against potentially volatile market pr		2021 16,821 MWh
Shell Energy North America 50 MW Energy Hedge against potentially volatile market pr		2021 18,515 MWh
Shell Energy North America 100MW Ener Hedge against potentially volatile market pr		22 65,600 MWh

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 18 RESPONSIBLE PARTY: Darrin Adams

Request 19. Refer to EKPC's response to Staff's First Request, Item 30b. Provide a map showing the location of the substations, all lines (including voltages and ownership) interconnected with the substations and the reasons for the two new free-flowing interconnections.

Response 19.

A map showing the location of the new EKPC Bekaert-KU West Shelby 69 kV interconnection is included as Attachment DR2-19-1. This interconnection point was established to address service issues for the customers served from the Shelby County-Bekaert 69 kV line. Prior to establishing the interconnection, this line was a radial line serving six distribution substations, including a substantial number of industrial customers. Approximately half of Shelby Energy Cooperative's peak load was served by this radial line. Furthermore, since 2014, three sustained outages occurred that resulted in interruptions of the customers served from this line, ranging from 42 to 72 minutes in duration. Therefore, EKPC coordinated with LG&E/KU to establish the new Bekaert-West Shelby 69 kV interconnection in order to provide a second 69 kV

Page 2 of 2

source to improve reliability for the six distribution substations served from the Shelby County-Bekaert line.

A map showing the location of the new EKPC Fox Hollow-TVA East Glasgow 161 kV interconnection is included as Attachment DR2-19-2. This interconnection point was established to address various post-contingency thermal overloads and voltage violations identified in both EKPC local planning studies and PJM Regional Transmission Expansion Plan studies, in addition to prevalent operational issues that EKPC has experienced in the area over the past several years. Therefore, EKPC coordinated with TVA to establish the new Fox Hollow-East Glasgow Tap 161 kV interconnection in order to provide a new transmission source into the area to reduce post-contingent flows and to improve post-contingent voltage levels on existing facilities in the area.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 20 RESPONSIBLE PARTY: Julia J. Tucker

Request 20. Refer to EKPC's response to Staff's First Request, Items 12 and 31. If EKPC realizes additional value from the capacity auction by having excess capacity to sell, explain why only capacity was purchased and not sold.

Response 20. EKPC participates in the PJM Reliability Pricing Model ("RPM") market. That means that EKPC purchases all of its capacity obligation, as defined by PJM, from the RPM auction and offers all of its available capacity for sale. The net result of that auction defines EKPC's long position, the amount of excess capacity that it has as compared to its load obligation. If generation status or pricing changes after the RPM auction has been completed then EKPC can modify its net position by buying additional capacity from other market participants and using that capacity to replace the obligation currently held by its own generation. The only time EKPC would have additional capacity to sell would be in the event that a unit did not clear the RPM auction. All of EKPC's generation generally clears the RPM auction. In the event that a unit does not clear the RPM auction, then it generally means that EKPC's offer price was higher than the RPM clearing price.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 21 RESPONSIBLE PARTY: Julia J. Tucker

Request 21. Refer to EKPC's response to Staff's First Request, Item 33. Explain whether fuel oil has been included in the budget estimates and, if not, provide an update to the budgeted amounts.

Response 21. Yes, fuel oil has been included in the budget estimates for 2023 and 2024.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 22 RESPONSIBLE PARTY: Mark Horn

Request 22. Provide the average length of long term coal contract between EKPC and its coal suppliers and explain if EKPC has a policy in place that dictates the ideal length of a long term contract coal supply contract.

Response 22. The average length of a long-term coal contract between EKPC and its coal suppliers is typically 3 years. The Term of a coal contract may be written for 9 years, but subject to market price reopeners every 3 years. EKPC does not view those as 9-year contracts because the contract is not fully hedged; only the first 3-year period is fully hedged. Beyond the initial 3-year period, the price of the coal is not known, and either party can let the contract expire at the end of the current term. EKPC strives to stagger the market price reopener periods and the end of the contract term to minimize market exposure. EKPC continues to pursue opportunities for coal supplier diversification and for longer-term coal supply contracts.

EKPC has numerous policies in place with controls around fuel procurement, but there is not a policy that dictates the ideal length of a long-term coal supply contract. Typically, the term of a coal supply contract is based on what the market will bear.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 23 RESPONSIBLE PARTY: Michelle K. Carpenter

Request 23. State whether any PJM costs were included in EKPC's monthly FAC filings during the period under review. If yes, provide the amount of the costs by month and by type of cost.

Response 23. PJM billing line items were included in the monthly FAC calculation during the period under review. Please refer to Excel file PSC *DR2 Response 23.xlsx* for a summary of the PJM billing line item charges and credits included in the FAC calculation during each month of the two-year review period, which is consistent with the billing line items authorized by the Commission in Case No. 2014-00451, with the exception of line items 2211 and 2215, Day-ahead Transmission Congestion and Balancing Transmission Congestion, respectively. PJM replaced Commission authorized billing line item 2210, Transmission Congestion Credits, with these new line items, effective June 1, 2017. EKPC included a letter to the Commission with its June 2017 expense month FAC filing that explained the change in billing line items.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 24 RESPONSIBLE PARTY: Julia J. Tucker

Request 24. Explain how EKPC's generating units are bid into PJM's energy market and the implications for the manner in which the units are run when the unit's bid in price is greater than the hourly locational marginal pricing (LMP). For example, if the unit is bid in as "must run" and the bid in price is greater than the hourly LMP, explain whether the unit is ramped down to its economic minimum output level or whether it is run at some level greater than that for some other reason such as balancing or voltage support.

<u>Response 24.</u> The detailed offers of EKPC's units is provided in Response 25. When units are offered as Must Run, then PJM must clear them at their minimum load level. Any dispatch above minimum load is done based on economics. Any signal from PJM above the minimum load, regardless of reason, is either paid at the LMP or the cost to run the unit, whichever is higher. Units that are offered in as economic and are dispatched by PJM will either receive the LMP or the cost to run the unit, whichever is higher.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 25 RESPONSIBLE PARTY: Julia J. Tucker

<u>Request 25.</u> In an Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible, for the period under review and when the units are available to run,

Request 25a. Provide the bid status (i.e. economic dispatch, must-run, etc.), by day, of EKPC's coal generating units into PJM's day ahead market. Explain the reason for each bid status.

Request 25b. Provide the price per MWH, by day, of EKPC's generating units bid into PJM's day ahead market and the corresponding LMP indicating whether or not the unit cleared the market.

Request 25c. In a separate spreadsheet Tab, provide a graphical representation of the information in part b. above.

Response 25a-c. Please refer to the Excel spreadsheet, "PSC_2023_00009_Response_25", subject to motion for confidential treatment.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 26 RESPONSIBLE PARTY: Julia J. Tucker

<u>Request 26.</u> Explain how often PJM denies a request made by EKPC to place a generating unit in maintenance outage. Also provide a general description for how often PJM denies other entities request to place a generating unit in maintenance outage in the EKPC's region.

Response 26. EKPC follows the outage business rules of PJM Manual 10 and the eDART User Guide and as such, and is rarely denied maintenance outage requests. If any requests are outside the bounds of the rules, PJM may approve or deny the outages based on the existing configuration of the Bulk Electric System (BES). There is no discernible pattern of denials due to the dynamic nature of the BES. PJM does not publicly publish the approval or denial of maintenance outages for all of its members, so there is no known way EKPC could obtain this information. The following is the excerpt from the PJM eDART User Guide pertaining to the business rules for maintenance outages in PJM:

Maintenance outages may occur throughout the year, have flexible start dates, are much shorter than planned outages, and have a predetermined duration established at the start of the outage.

Page 2 of 2

A Maintenance outage is an outage that may be deferred beyond the next weekend. In other words, it is an outage that can be postponed to the following Monday morning (0800 hrs).

The duration of a Maintenance outage is generally unlimited except during the PJM Peak Period Maintenance *(PPM) Season during which approved Maintenance outages will be limited to a maximum duration of 9 consecutive days, 5 weekdays plus the included weekends. The Weekend Period is defined from Friday at 2200 hrs to Monday at 0800 hrs.

A Maintenance Outage Extension is an extension beyond the originally estimated completion date, which can only be used in instances when the original scope of work requires more time to complete than originally scheduled and not when unexpected problems or delays are encountered. The request for a Maintenance outage Extension must be submitted before the original end date.

If a Maintenance outage is extended beyond 9 days in PPM season, it becomes an "Unplanned" outage.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 27 RESPONSIBLE PARTY: Michelle K. Carpenter

Request 27. For the two-year period under review, provide each instance an error or misreport was made by EKPC on its FAC form A rate sheet filing. For each instance provide:

<u>Request 27a.</u> An explanation on the error that occurred and why the error was made.

Request 27b. EKPC's actions taken to correct for the error and to ensure future similar errors do not occur.

Request 27c. Revised FAC form A rate sheets showing the actual fuel related expenses and sales as correctly calculated pursuant to 807 KAR 5:056.

<u>Response 27a-c.</u> For the two-year review period, one instance was noted where an error impacted the amounts included on a monthly Form A rate sheet filing. Specifically, an incorrect natural gas price was utilized in the calculation of the purchased power highest cost unit exclusion which ultimately understated recoverable economy purchases by \$8,082 for the expense month of

Page 2 of 2

October 2021. This error occurred because an internal communication was relied upon that contained inaccurate natural gas price information. Staff members preparing the calculation now independently verify the information contained within the monthly natural gas price communication by referencing a detail of natural gas purchases for the month to ensure that no future errors occur. Upon discovery of the error, the subsequent month's economy purchases were adjusted (increased) by \$8,082 to correct the prior month error. Given the correction was included in the following month's economy purchases, a revised FAC Form A rate sheet has not been provided as part of this response.

STAFF'S REQUEST DATED OCTOBER 5, 2023 REQUEST 28 RESPONSIBLE PARTY: Michelle K. Carpenter

<u>Request 28.</u> For each month of the review period, provide the total amount of fuel related cost that occurred during a forced outage that was disallowed pursuant to 807 KAR 5:056, or that EKPC was unable to collect via any other means.

Response 28. Listed below is an excerpt from the schedule originally provided as part of Response 39, Page 2, of the Staff's First Data Request, which shows forced outage disallowances pursuant to 807 KAR 5:056 by month for the two-year review period totaling \$3,045,862. As discussed in Mr. Scott's Reponses 41 to Staff's First Data Request, the five-year average of purchased power forced outage disallowances of approximately \$1,958,444 was incorporated into base rates, effective October 1, 2021. Therefore, on an annual basis, forced outage disallowances in excess of the five-year average included in base rates would theoretically represent the amount that EKPC would be unable to collect via any other means.

Month	Forced Outage Costs Disallowed	
Nov-20	\$ 10,631	
Dec-20	-	
Jan-21	-	
Feb-21	580,294	
Mar-21	-	
Apr-21	94,770	
May-21	-	
Jun-21	-	
Jul-21	-	
Aug-21	60,957	
Sep-21	475,096	
Oct-21	-	
Nov-21	-	
Dec-21	51,890	
Jan-22	-	
Feb-22	137,930	
Mar-22	-	
Apr-22	346,595	
May-22	-	
Jun-22	367,240	
Jul-22	174,317	
Aug-22	107,630	
Sep-22	308,855	
Oct-22	329,657	
Total	\$3,045,862	