### **DATA REQUEST**

**KPSC 2\_1** Refer to Kentucky Power's response to Commission Staff's First Request for Information (Staff's First Request), Item 1. Provide an update to the table showing which purchases were for high sulfur coal and for low sulfur coal.

### **RESPONSE**

Please see KPCO\_R\_KPSC\_2\_1\_Attachment1 for the requested information.

Witness: Kimberly K. Chilcote

### For the period of May 1, 2023 through October 31, 2023

Counterparty	Type of Purchase	Total Tons <sup>1</sup>
ACNR Coal Sales, INC.	Contract	170,112
ACNR Coal Sales, INC.	Contract	72,023
Alliance Coal, LLC	Contract	124,367
Alpha Thermal Coal Sales Co., LLC	Contract	22,724
Alpha Thermal Coal Sales Co., LLC	Contract	12,244
BAMM, Inc.	Contract	18,772
Blackhawk Coal Sales, LLC	Contract	42,097
Blackhawk Coal Sales, LLC	Contract	12,278
Blackhawk Coal Sales, LLC	Contract	30,293
Blackhawk Coal Sales, LLC	Spot	42,754
Blackhawk Coal Sales, LLC	Spot	33,413
Case Coal Sales, LLC	Contract	8,108
Iron Coal Sales, LLC	Spot	8,695
Noble Coal, LLC	Contract	12,868
Pocahontas Sales and Logistics LLC	Contract	33,321
River Trading Company	Spot	6,499

<sup>&</sup>lt;sup>1</sup>Represents Kentucky Power Share

TOTAL	650,567

Total Contract	86%
Total Spot	14%

### **DATA REQUEST**

**KPSC 2\_2** Refer to Kentucky Power's response to Staff's First Request, Item 2, Attachment 1. Provide an update to the table showing which contracts are for high sulfur and which contracts are for low sulfur coal.

### **RESPONSE**

Please see KPCO\_R\_KPSC\_2\_2\_Attachment1 for the requested information.

Witness: Kimberly K. Chilcote

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This response is provided for the time period of May 1, 2023 through October 31, 2023 and lists all pertinent fuel contract information requested. Tonnage information is reported per Kentucky Power ownership share.

a.	b.	c.	d.	e.	f.		
Contract/Purchase Order No.	Supplier Name	Location of Production Facilities	Method of Delivery	Tonnage Quantity Received During Review Period	Price Paid per Ton		Type of Coal
03-00-21-002	Case Coal Sales, LLC	Mine Rite Mne - Flatgap, KY	Barge	8,108	\$82.52	Note 1	Low Sulfur
03-00-21-003	BAMM, Inc.	MATTCO#1 Plant Mine- Floyd, KY PRIME MET/ED Sk Pop St, Wy,WV	Barge	18,772	\$73.36	Note 1	Low Sulfur
03-00-21-9M1	Blackhawk Coal Sales, LLC	Blue Creek Mine - Kanawha, WV	Barge	42,097	\$55.17	Note 1	Low Sulfur
03-00-21-9M2	Alpha Thermal Coal Sales Co., LLC	Republic Energy Mine - WV	Barge	22,724	\$56.83	Note 1	Low Sulfur
03-00-21-9M3	Alpha Thermal Coal Sales Co., LLC	Republic Energy Mine - WV	Barge	12,244	\$71.28	Note 1	Low Sulfur
03-00-21-9M4	Blackhawk Coal Sales, LLC	Blue Creek Mine - Kanawha, WV	Barge	12,278	\$71.90	Note 1	Low Sulfur
03-00-22-002	Noble Coal, LLC	Various Mines - Floyd, KY	Barge	12,868	\$170.88	Note 1	Low Sulfur
03-00-22-003	ACNR Coal Sales, INC.	McElroy Mine - Marshall, WV	Conveyor Belt	170,112	\$82.34	Note 1	High Sulfur
03-00-22-9M3	Alliance Coal, LLC	Tunnel Ridge Mine-Ohio, WV	Barge	124,367	\$87.38	Note 1	High Sulfur
03-00-23-002	Pocahontas Sales and Logistics LLC	Various Mines-Boone/Fayette,WV	Barge	33,321	\$161.77	Note 1	Low Sulfur
03-00-23-9M3	Blackhawk Coal Sales, LLC	Blue Creek Mine - Kanawha, WV	Barge	30,293	\$165.24	Note 1	Low Sulfur
07-77-05-900	ACNR Coal Sales, INC.	McElroy Mine - Marshall, WV	Conveyor Belt	72,023	\$44.78	Note 1	High Sulfur

Reflects weighted average cost \$/ton including adjustments for quality as per the agreement.

Note 1

### **DATA REQUEST**

**KPSC 2\_3** Refer to Kentucky Power's response to Staff's First Request, Item 3. For both high and low sulfur coal, provide a table in Excel spreadsheet format showing the estimated monthly ending inventory level, amount of coal burned, coal received, high and low sulfur full-burn days' supply and target levels for the period April 2022 through October 2023.

### **RESPONSE**

Please see KPCO\_R\_KPSC\_2\_3\_Attachment1 for the requested information.

Witness: Kimberly K. Chilcote

### **DATA REQUEST**

- **KPSC 2\_4** Refer to Kentucky Power's response to Staff's First Request, Item 6 and Item 8.
  - a. Provide copies of the January 2023 and February 2023 requests for proposals and the bid tally sheets similar to those provided for coal solicitations showing which bids were taken and which were not taken.
  - b. For each gas contract, provide the contract number, when the contract was filed with the Commission, and a copy of the contract.
  - c. Provide a table showing how each contracted gas price compares to spot gas price purchases.

### **RESPONSE**

a.-c. The request for proposals referenced herein were issued during the Review Period under Case No. 2024-00136. Please see the Company's response to Commission Staff's Second Set of Data Requests in Case No. 2024-00136 item 11 for the requested information.

Witness: Kimberly K. Chilcote

Witness: Clinton M. Stutler

### **DATA REQUEST**

- **KPSC 2\_5** Refer to Kentucky Power's response to Staff's First Request, Item 8.
  - a. Provide a detailed explanation of the assumptions and equations used to forecast customer load.
  - b. To the extent that the forecast methodology or any assumptions differ from that used in Kentucky Power's most recent integrated resource plan, provide a detailed side-by-side comparison of how the two methodologies differ.
  - c. Explain whether the shift to forecasting weather normalized customer load on a 36-month rolling average was instituted American Electric Power (AEP) wide and whether any other AEP East states have commented on the change in methodology. If so, identify the state and any applicable docket.

### **RESPONSE**

- a. A detailed description of Kentucky Power's load forecast methodology was included on pages 10-17 of the Company's most recent integrated resource plan report filed in Case No. 2023-00092. A copy of this description is provided here as KPCO\_R\_KPSC\_2\_5\_Attachment1 for ease of reference.
- b. The Company's load forecast methodology has not changed since its most recent IRP filing.
- c. The shift was AEP wide. Oklahoma Corporation Commission Case No. PUD2024-000040 and Indiana Utility Regulatory Commission Case No. 38702 FAC-92 discuss this change in methodology for Public Service Company of Oklahoma and Indiana Michigan Power Company, respectively.

Witness: Lerah M. Kahn

Witness: Kimberly K. Chilcote

Witness: Clinton M. Stutler

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## TO THE KENTUCKY PUBLIC SERVICE COMMISSION

Case No. 2023-00092

**VOLUME A – PUBLIC VERSION** 

March 20, 2023

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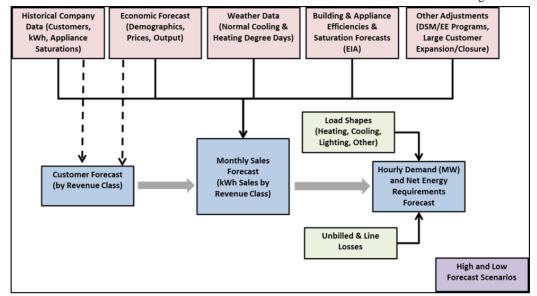


Figure 2. Kentucky Power Internal Energy Requirements and Peak Demand Forecasting Method

### 2.4 Detailed Explanation of Load Forecast

### 2.4.1 General

This section provides a more detailed description of the short-term and long-term models employed in producing the forecasts of Kentucky Power's energy consumption, by customer class. Conceptually, the difference between short- and long-term energy consumption relates to changes in the stock of electricity-using equipment and economic influences, rather than the passage of time. In the short term, electric energy consumption is considered as a function of an essentially fixed stock of equipment. For residential and commercial customers, the most significant factor influencing the short term is weather. For industrial customers, economic forces that determine inventory levels and factory orders also influence short-term utilization rates. The short-term models recognize these relationships and use weather and recent load growth trends as the primary variables in forecasting monthly energy sales.

Over time, demographic and economic factors such as population, employment, income, and technology influence the nature of the stock of electricity-using equipment, both in size and composition. Long-term forecasting models recognize the importance of these variables and include all or most of them in the formulation of long-term energy forecasts.

Relative energy prices also have an impact on electricity consumption. One important difference between the short-term and long-term forecasting models is their treatment of energy

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prices, which are only included in long-term forecasts. This approach makes sense because although consumers may suffer sticker shock from energy price fluctuations, there is little they can do to affect them in the short-term. They already own a refrigerator, furnace or industrial equipment that may not be the most energy-efficient model available. In the long term, however, these constraints are lessened as durable equipment is replaced and as price expectations come to fully reflect price changes.

### 2.4.2 Customer Forecast Models

The Company also utilizes both short-term and long-term models to develop the final customer count forecast. The short-term customer forecast models are time series models with intervention (when needed) using Autoregressive Integrated Moving Average (ARIMA) methods of estimation. These models typically extend for 24 months into the forecast horizon.

The long-term residential customer forecasting models are also monthly but extend for 30 years. The explanatory jurisdictional economic and demographic variables include employment, population, housing stock, real personal income, employment and households are used in various combinations. In addition to the economic explanatory variables, the long-term customer models may employ a lagged dependent variable to capture the adjustment of customer growth to changes in the economy. There are also binary variables to capture monthly variations in customers, unusual data points, and special occurrences.

The short-term and long-term customer forecasts are blended, as was described earlier, to arrive at the final customer forecast that will be used as a primary input into both short-term and long-term usage forecast models.

### 2.4.3 Short-term Forecasting Models

The goal of Kentucky Power's short-term forecasting models is to produce an accurate load forecast for the first full year into the future. To that end, the short-term forecasting models generally employ a combination of monthly and seasonal binaries, time trends, and monthly heating/cooling degree-days in their formulation. The heating and cooling degree-days are measured at weather stations in the Company's service area. The forecasts relied on ARIMA models.

The estimation period for the short-term models was January 2012 through January 2022. There are models for residential, commercial, industrial, other retail, and wholesale sectors. The industrial models are comprised of 10 large industrial models and models for the remainder of the

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industrial sector. The wholesale forecast is developed using models for the cities of Vanceburg and Olive Hill.

Off-system sales and/or sales of opportunity are not relevant to the net energy requirements forecast as they are not requirements load or relevant to determining capacity and energy requirements in the IRP process.

### 2.4.4 Long-term Forecasting Models

The goal of the long-term forecasting models is to produce a reasonable load outlook for up to 30 years in the future. Given that goal, the long-term forecasting models employ a full range of structural economic and demographic variables, electricity and natural gas prices, weather as measured by annual heating and cooling degree-days, and binary variables to produce load forecasts conditioned on the outlook for the U.S. economy, for the Kentucky Power service-area economy, and for relative energy prices.

Most of the explanatory variables enter the long-term forecasting models in a straightforward, untransformed manner. In the case of energy prices, however, it is assumed, consistent with economic theory, that the consumption of electricity responds to changes in the price of electricity or substitute fuels with a lag, rather than instantaneously. This lag occurs for reasons having to do with the technical feasibility of quickly changing the level of electricity use even after its relative price has changed, or with the widely accepted belief that consumers make their consumption decisions based on expected prices, which may be perceived as functions of both past and current prices.

There are several techniques, including the use of lagged price or a moving average of price that can be used to introduce the concept of lagged response to price change into an econometric model. Each of these techniques incorporates price information from previous periods to estimate demand in the current period.

The general estimation period for the long-term load forecasting models was 1995-2021 The long-term energy sales forecast is developed by blending of the short-term forecast with the long-term forecast. The energy sales forecast is developed by making a billed/unbilled adjustment to derive billed and accrued values, which are consistent with monthly generation.

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2.4.4.1 Supporting Models

In order to produce forecasts of certain independent variables used in the internal energy requirements forecasting models, several supporting models are used, including natural gas price and coal production models for Kentucky Power's service areas. These models are discussed below.

2.4.4.1.1 Consumed Natural Gas Pricing Model

The forecast price of natural gas used in the Company's energy models comes from a model of natural gas prices for the state's three primary consuming sectors: residential, commercial, and industrial. In the state natural gas price models sectoral prices are related to East North Central Census region's sectoral prices, with the forecast being obtained from EIA's "2022 Annual Energy Outlook." The natural gas price model is based upon 1980-2021 historical data.

2.4.4.1.2 Regional Coal Production Model

A regional coal production forecast is used as an input in the mine power energy sales model. In the coal model, regional production depends on mainly Appalachian coal production, as well as on binary variables that reflect the impacts of special occurrences, such as strikes. In the development of the regional coal production forecast, projections of Central Appalachian and U.S. coal exports were obtained from EIA's "2022 Annual Energy Outlook." The estimation period for the model was 1998-2021.

Coal mining activity plays a significant role in the local economy of Kentucky Power's service territory. Figure 3 below provides coal production in Eastern Kentucky between 2000 and 2021. During this period coal production dropped from nearly 105 million tons to approximately 10.1 million tons or a decline of approximately 90%. The forecast is for production to hover around the 10 million tons level, benefitting in part from the coal export market.

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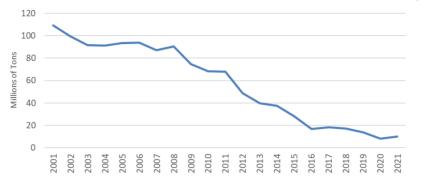


Figure 3. Eastern Kentucky Coal Production (Millions of Tons) 2000-2021 Source: The Energy Information Administration

### 2.4.4.2 Residential Energy Sales

Residential energy sales for Kentucky Power are forecasted using two models, the first of which projects the number of residential customers, and the second of which projects kWh usage per customer. The residential energy sales forecast is calculated as the product of the corresponding customer and usage forecasts.

The residential usage model is estimated using an SAE model, which was developed by Itron, a consulting firm with expertise in energy modeling. This model assumes that use will fall into one of three categories: heat, cool, and other. The SAE model constructs variables to be used in an econometric equation where residential usage is a function of Xheat, Xcool, and Xother variables.

The Xheat variable is derived by multiplying a heating index variable by a heating use variable. The heating index incorporates information about heating equipment saturation; heating equipment efficiency standards and trends; and thermal integrity and size of homes. The heating use variable is derived from information related to billing days, heating degree-days, household size, personal income, gas prices, and electricity prices.

The Xcool variable is derived by multiplying a cooling index variable by a cooling use variable. The cooling index incorporates information about cooling equipment saturation; cooling equipment efficiency standards and trends; and thermal integrity and size of homes. The cooling use variable is derived from information related to billing days, cooling degree-days, household size, personal income, gas prices and electricity prices.

The Xother variable estimates the non-weather sensitive sales and is similar to the Xheat and Xcool variables. This variable incorporates information on appliance and equipment saturation

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levels; average number of days in the billing cycle each month; average household size; real personal income; gas prices and electricity prices.

The appliance saturations are based on historical trends from Kentucky Power's residential customer survey. The saturation forecasts are based on EIA forecasts and analysis by Itron. The efficiency trends are based on DOE forecasts and Itron analysis. The thermal integrity and size of homes are for the East North Central Census Region and are based on DOE and Itron data.

The number of billing days is from internal data. Economic and demographic forecasts are from Moody's Analytics and the electricity price forecast is developed internally.

The SAE residential models are estimated using linear regression models. These monthly models are typically for the period January 1995 through January 2022. It is important to note, as will be discussed later, that this modeling *has* incorporated the reductive effects of the EPAct, EISA, American Recovery and Reinvestment Act of 2009 (ARRA) and Energy Improvement and Extension Act of 2008 (EIEA 2008) on the residential (and commercial) energy usage based on analysis by the EIA regarding appliance efficiency trends.

The long-term residential energy sales forecast is derived by multiplying the "blended" customer forecast by the usage forecast from the SAE model.

### 2.4.4.3 Commercial Energy Sales

Long-term commercial energy sales are forecast using SAE models. These models are similar to the residential SAE models. These models utilize efficiencies, square footage and equipment saturations for the East North Central Region, along with electric prices, economic drivers from Moody's Analytics, heating and cooling degree-days, and billing cycle days. As with the residential models, there are Xheat, Xcool, and Xother variables derived within the model framework. The commercial SAE models are estimated similarly to the residential SAE models. Commercial sales were boosted to reflect the expected addition of a significant large customer.

### 2.4.4.4 Industrial Energy Sales

Based on the size and importance of the Mine Power sector to the overall Kentucky Power Industrial base as well as the unique outlook for the mining sector in the long-run, the Company models Mine Power sales separately from the rest of the Industrial manufacturing sales in the long-term forecast models.

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2.4.4.4.1 Manufacturing Energy Sales

The Company uses some combination of the following economic and pricing explanatory variables: service area manufacturing employment, petroleum industrial production index, Kentucky industrial gas prices, and service area industrial electricity prices. In addition, binary variables for months are special occurrences and are incorporated into the models. Based on information from customer service engineers there may be load added or subtracted from the model results to reflect plant openings, closures or load adjustments. The last actual data point for the

manufacturing energy sales models is January 2022.

2.4.4.4.2 Mine Power Energy Sales

For its mine power energy sales models, the Company uses some combination of the following economic and pricing explanatory variables: regional coal production, and service area mine power electricity prices. In addition, binary variables for months are special occurrences and are incorporated into the models. Based on information from customer service engineers there may be load added or subtracted from the model results to reflect mine openings, closures or load

adjustments. The last actual data point for the mine power energy sales models is January 2022.

2.4.4.5 All Other Energy Sales

The forecast of public-street and highway lighting relates energy sales to service area

employment and binary variables.

Wholesale energy sales are modeled relating energy sales to economic variables such as service area employment, service area population, heating and cooling degree-days, and binary variables. The wholesale customers contract expires beginning June 2025. These entities have solicited proposals to serve them after the end of the current contract. Therefore, these entities are

not included in the load forecast beyond June 2025.

2.4.5 Internal Energy Forecast

2.4.5.1 Blending Short and Long-Term Sales

Forecast values for 2022 and 2023 are taken from the short-term process. Forecast values for 2024 are obtained by blending the results from the short-term and long-term models. The

blending process combines the results of the short-term and long-term models by assigning weights

to each result and systematically changing the weights so that by July 2024 the entire forecast is

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from the long-term models. The goal of the blending process is to leverage the relative strengths of the short-term and long-term models to produce the most reliable forecast possible. However, at times the short-term models may not capture structural changes in the economy as well as the long-term models, which may result in the long-term forecast being used for the entire forecast horizon.

### 2.4.5.2 Losses and Unaccounted-For Energy

Energy is lost in the transmission and distribution of the product. This loss of energy from the source of production to consumption at the premise is measured as the average ratio of all Federal Energy Regulatory Commission (FERC) revenue class energy sales measured at the premise meter to the net internal energy requirements metered at the source. In modeling, Company loss study results are applied to the final blended sales forecast by revenue class and summed to arrive at the final internal energy requirements forecast.

### 2.4.6 Forecast Methodology for Seasonal Peak Internal Demand

The demand forecast model is a series of algorithms for allocating the monthly internal energy sales forecast to hourly demands. The inputs into forecasting hourly demand are blended revenue class sales, energy loss multipliers, weather, 24-hour load profiles and calendar information.

The weather profiles are developed from representative weather stations in the service area. Twelve monthly profiles of average daily temperature that best represent the cooling and heating degree-days of the specific geography are taken from the last 30 years of historical values. The consistency of these profiles ensures the appropriate diversity of the Company loads.

The 24-hour load profiles are developed from historical hourly Company or jurisdictional load and end-use or revenue class hourly load profiles. The load profiles were developed from segregating, indexing, and averaging hourly profiles by season, day types (weekend, midweek and Monday/Friday), and average daily temperature ranges.

In the end, the profiles are benchmarked to the aggregate energy and seasonal peaks through adjustments to the hourly load duration curves of the annual 8,760 hourly values. These 8,760 hourly values per year are the forecast load of Kentucky Power and the individual companies of American Electric Power (AEP) that can be aggregated by hour to represent load across the spectrum from end-use or revenue classes to total AEP-East, AEP-West, or total AEP System. Net internal energy requirements are the sum of these hourly values to a total company energy need

### **DATA REQUEST**

**KPSC 2\_6** Refer to Kentucky Power's Response to Staff's First Request, Item 15, Attachment 1. Explain the reason for the Big Sandy Maintenance Outage from June 13–17, 2023.

### **RESPONSE**

The Big Sandy Maintenance Outage from June 13-17, 2023, was for boiler inspection and repair, inspection of the west air heater, and replacement of a hand-operated shutoff valve for the main turbine oil cooler water supply. The updated information can be seen in KPCO\_R\_KPSC\_2\_6\_Attachment1.

Witness: Paul J. Massie

KPSC Case No. 2024-00144 Commission Staff's Second Set of Data Requests Dated September 9, 2024 Item No. 6 Attachment 1 Page 1 of 1

### Kentucky Power Company Fuel Adjustment Case No. 2024-00144 Generating Unit Outages

May 1, 2023-October 31, 2023

Unit Name	Event Type*	Event Start	Event End	Event Description
Big Sandy 1	РО	4/8/2023 2:25	5/13/2023 12:00	Boiler i/r, 600V Breaker upgrade.
Big Sandy 1	FO	5/28/2023 17:34	5/28/2023 21:37	Tripped - reason unknown
Big Sandy 1	RS	6/13/2023 0:56	6/13/2023 7:00	Reserve Shutdown
				Boiler inspect/repair, inspect the west air heater, and replace the hand
				operated shutoff valve after RV-910 (Main turbine oil cooler water
Big Sandy 1	МО	6/13/2023 7:00	6/17/2023 7:00	supply).
Big Sandy 1	RS	6/17/2023 7:00	6/18/2023 5:58	Reserve Shutdown
Big Sandy 1	FO	7/5/2023 12:51	7/5/2023 19:51	unknown
Big Sandy 1	FO	9/11/2023 9:09	9/11/2023 13:59	Potential card failure
				Boiler i/r, Corrosion Fatigue i/r, Cooling Tower i/r, Furnace Wall
Big Sandy 1	PO	9/16/2023 1:24	10/14/2023 9:56	i/r.Installing new 600v breakers
				Boiler i/r, Precipitator i/r, Sicon Conveyor Tail Pulley structural steel
				repairs, relocation of the 2#4 River Water feed to FGD in the foundation of
Mitchell 1	PO	4/15/2023 4:31	5/12/2023 18:00	the new ash bunker, BOP repairs, dual outage to prep for Fall Outage.
				Outage due to condensate contamination with Urea from Hydrolyzer
				system entering the Condensate Return System. Determined the source of
				contamination to be urea solution transfer pumps through the seal water
Mitchell 1	FO	5/12/2023 18:00	5/19/2023 7:25	line.
Mitchell 1	FO	5/19/2023 11:27	5/20/2023 1:57	Lost Steam to the Feed Pump due to aux boiler trip during startup.
				Lower furnace tube leak, 2 tube leaks were identified on the lower rear
Mitchell 1	FO	6/15/2023 15:12	6/23/2023 6:32	slope directly below the burners.
Mitchell 1	RS	6/23/2023 6:32	6/24/2023 11:01	Reserve Shutdown
				Steam Generator Tube Leak, replaced 6 tubes on the side wall and 12
				tubes on the north wall due to damage from the initial leak. The initial leak
Mitchell 1	FO	7/27/2023 9:43	8/6/2023 19:30	was located in the north east 5th floor corner tube.
				HP/RH Turbine replacement, LPT A replacement, Cooling Tower i/r, AH
Mitchell 1	PO	9/9/2023 5:29	12/6/2023 5:56	Basket i/r, BFPT Stop and Control Valve i/r, ID Fan i/r, Precip i/r.
			-1.1	Repair #3 Control Valve, Boiler i/r, Boiler Feed Pump #2 Bearing oil leak
Mitchell 2	МО	5/15/2023 1:27	6/1/2023 0:00	repairs, FMO 402 (Second RH By-Pass Valve) repairs.
				EHC fluid contamination from failing valve actuator on #3 control valve
			-1-1	found during startup. Vendor brought back on site to clean and filter EHC
Mitchell 2	FO	6/1/2023 0:00	6/8/2023 20:33	system after replacing actuator.
Mitchell 2	DO.	0/11/2022 1:20	11/10/2022 17:22	Reileritz Chamical Class Furnaca Wallitz Beileritz CCR/FLC Project
Mitchell 2	PO	9/11/2023 1:36	11/19/2023 17:33	Boiler i/r, Chemical Clean, Furnace Wall i/r. Boiler i/r, CCR/ELG Project.

### Event Type \*

FO Forced Outage
MO Maintenance Outage
PO Planned Outage
RS Reserve Shutdown
SF Startup Failure

Note: i/r = inspection and repair

### **DATA REQUEST**

**KPSC 2\_7** Refer to Kentucky Power's response to Staff's First Request, Item 17, Attachment 1. Confirm whether the dates listed in the two tables are correct.

### **RESPONSE**

The dates in Kentucky Power's response to Staff's First Request, Item 17, Attachment 1 were not all correct. The corrected dates can be seen in KPCO\_R\_KPSC\_2\_7\_Attachment1.

Witness: Paul J. Massie

KPSC Case No. 2024-00144 Commission Staff's Second Set of Data Requests Dated September 9, 2024 Item No. 7 Attachment 1 Page 1 of 1

## Kentucky Power Company Fuel Adjustment Case No. 2024-00144 Generating Unit Net Capacity Factor [%] May 1, 2023-October 31, 2023

	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
Big Sandy 1	24.47	44.85	66.28	63.45	29.12	46.14
Mitchell 1	16.19	40.05	51.68	31.71	12.15	0.00
Mitchell 2	21.35	40.93	74.07	51.40	16.39	0.00

## Kentucky Power Company Fuel Adjustment Case No. 2024-00144 Generating Unit Equivalent Availability Factor [%] May 1, 2023-October 31, 2023

	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
Big Sandy 1	56.95	86.10	96.85	98.74	46.68	56.14
Mitchell 1	37.94	71.33	70.88	80.50	25.54	0.00
Mitchell 2	42.73	69.93	97.29	97.89	30.33	0.00





### **Chilcote Discovery Verification Form.doc**

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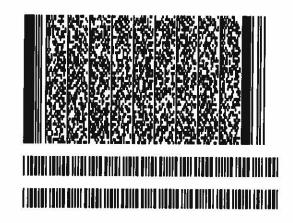
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### **E-Signature Summary**

E-Signature 1: Kimberly Chilcote (Kkc)
September 18, 2024 06:36:23 -8:00 [8FB6165D43D3] [107.77.195.32]
kkchilcote@aep.com (Principal) (Personally Known)

E-Signature Notary: Marilyn Michelle Caldwell (MMC) September 18, 2024 06:36:23 -8:00 [8641062E6B2B] [167.239.221.107] mmcaldwell@aep.com

I, Marilyn Michelle Caldwell, did witness the participants named above electronically sign this document.



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# 429C2D12-F27F-4DD9-9CB8-69E004321CB7 -- 2024/09/18 06:11:39 -8:00 — Remote Notary

### **VERIFICATION**

The undersigned, Kimberly K. Chilcote, being duly sworn, deposes and says she is the Director Coal and Reagent Procurement for American Electric Power Service Corporation, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

Kimberly Chilcote  Special 2014 and 10 to
Kimberly K. Chilcote
Commonwealth of Kentucky ) Case No. 2024-00144 County of Boyd )
Subscribed and sworn to before me, a Notary Public in and before said County  and State, by Kimberly K. Chilcote, on September 18, 2024  MARILYN MICHELLE CALDWELL ONLINE NOTARY PUBLIC STATE AT LARGE KENTUCKY Commission # KYNP71841 My Commission Expires May 05, 2027  Notary Public  Notarial act performed by audio-visual communication
My Commission Expires May 5, 2027
Notary ID Number <u>KYNP71841</u>

### **VERIFICATION**

The undersigned, Lerah M. Kahn, being duly sworn, deposes and says she is the Manager of Regulatory Services for Kentucky Power, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

		Thunk Kahn	
		Lerah M. Kahn	
Commonwealth of Kentucky	)	Case No. 2024-00144	
County of Boyd	)	Case No. 2024-00144	

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Lerah M. Kahn, on September 19, 2024.

Marily Mothele Celdwile

My Commission Expires Way 5, 2027

Notary ID Number KYNP71841

MARILYN MICHELLE CALDWELL
Notary Public
Commonwealth of Kentucky
Commission Number KYNP [1841
My Commission Expires May 5, 2027





### Massie Discovery 2024-00136 Verification Form.doc

DocVerify ID: E441DB38-20D9-47FC-9A5A-FB89DF89B07C

Created: September 16, 2024 06:43:55 -8:00

Pages:

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### E-Signature Summary

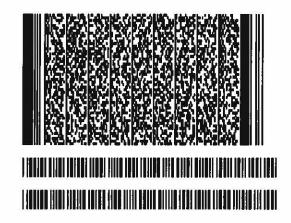
E-Signature 1: Paul J. Massie (PJM)

September 17, 2024 08:02:51 -8:00 [58CCD8F65AA7] [167,239,221,107] pjmassie@aep.com (Principal) (Personally Known)

E-Signature Notary: Marilyn Michelle Caldwell (MMC)

September 17, 2024 08:02:51 -8:00 [31DF306D823E] [167.239.221.107] mmcaldwell@aep.com

I, Marilyn Michelle Caldwell, did witness the participants named above electronically sign this document.



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### **VERIFICATION**

The undersigned, Paul J. Massie, being duly sworn, deposes and says he is the Vice President Generating Assets for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

	Paul J. Massie Paul J. Massie
Commonwealth of Kentucky ) County of Boyd )	Case No. 2024-00144
and State, by Paul J. Massie, o	Officer
Modern Clude Square of Policies of the Square of the S	MARILYN MICHELLE CALDWELL ONLINE NOTARY PUBLIC STATE AT LARGE KENTUCKY Commission # KYNP71841 My Commission Expires May 05, 2027
My Commission Expires	May 5, 2027 arial act performed by audio-visual communication







### Stutler Discovery 2024-00144 Verification Form.doc

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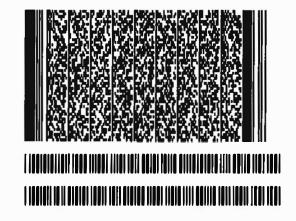
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### **E-Signature Summary**

E-Signature 1: Clinton M. Stutler (CMS)
September 18, 2024 07:03:32 -8:00 [EA3CB0869E02] [167.239.221.105]
cmstutler@aep.com (Principal) (Personally Known)

E-Signature Notary: Marilyn Michelle Caldwell (MMC)
September 18, 2024 07:03:32 -8:00 [A48A4FCE0D77] [167.239.221.107]
mmcaldwell@aep.com

I, Marilyn Michelle Caldwell, did witness the participants named above electronically sign this document.



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# C60A22D9-3DBE-4745-9E95-DF8CE95A3ZAR --- 2024/09/16 12.33:25 -8:00 --- Remote Notary

### **VERIFICATION**

The undersigned, Clinton M. Stutler, being duly sworn, deposes and says he is the Director Natural Gas Procurement for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Clinton M. Stutler	
Clinton M. Stutler	
Commonwealth of Kentucky ) County of Boyd )  Case No. 2024-00144	
Subscribed and sworn to before me, a Notary Publiand State, by Clinton M. Stutler, on September 18, 202	ic in and before said County
Notary Public	MARILYN MICHELLE CALDWELL ONLINE NOTARY PUBLIC STATE AT LARGE KENTUCKY Commission # KYNP71841 Wy Commission Expires May 05, 2027
Notarial act performed by a	प्रकार क्षेत्रकार
My Commission Expires May 5, 2027	
Notary ID Number <u>KYNP71841</u>	

