

**VERIFICATION**

STATE OF NORTH CAROLINA    )  
  )    **SS:**  
COUNTY OF MECKLENBURG    )

The undersigned, Kimberly A. Hughes, Manager Coal Origination & Contract Administration, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

  
Kimberly A. Hughes, Affiant

Subscribed and sworn to before me by Kimberly A. Hughes on this 27 day of September, 2022.

  
NOTARY PUBLIC

My Commission Expires:

SHAMALE M WILSON  
Notary Public, North Carolina  
Mecklenburg County  
My Commission Expires  
July 06, 2026

**VERIFICATION**

**STATE OF NORTH CAROLINA            )**  
**)**       **SS:**  
**COUNTY OF MECKLENBURG            )**

The undersigned, Brad Daniel, Director, Generation Dispatch and Operations, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
Brad Daniel, Affiant

Subscribed and sworn to before me by Brad Daniel on this 22 day of September, 2022.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:

SHAMALE M WILSON  
Notary Public, North Carolina  
Mecklenburg County  
My Commission Expires  
July 06, 2026

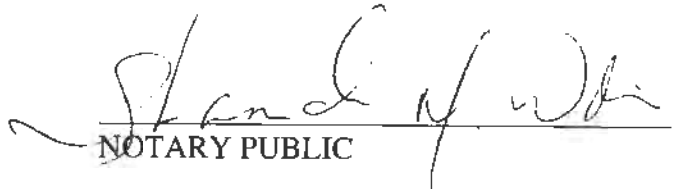
VERIFICATION

STATE OF NORTH CAROLINA        )  
  )        SS:  
COUNTY OF MECKLENBURG        )

The undersigned, John D. Swez, Managing Director, Trading and Dispatch, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
John D. Swez, Affiant

Subscribed and sworn to before me by John D. Swez on this 22 day of September, 2022.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:

SHAMALE M WILSON  
Notary Public, North Carolina  
Mecklenburg County  
My Commission Expires  
July 06, 2026

**VERIFICATION**

**STATE OF NORTH CAROLINA**      )  
   )  
   )  
**COUNTY OF MECKLENBURG**     )           **SS:**

The undersigned, Jim McClay, Manager Director Natural Gas Trading, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
 \_\_\_\_\_  
 Jim McClay, Affiant

Subscribed and sworn to before me by Jim McClay on this 22 day of September  
 2022.

  
 \_\_\_\_\_  
 NOTARY PUBLIC

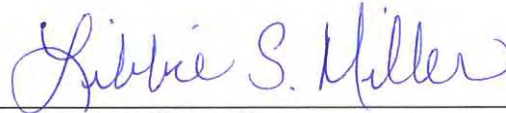
My Commission Expires:

<p><b>SHAMALE M WILSON</b>          Notary Public, North Carolina          Mecklenburg County          My Commission Expires          July 06, 2026</p>
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**VERIFICATION**

STATE OF OHIO                    )  
  )     SS:  
COUNTY OF HAMILTON        )

The undersigned, Libbie S. Miller, Rates & Regulatory Strategy Manager, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.



\_\_\_\_\_  
Libbie S. Miller Affiant

Subscribed and sworn to before me by Libbie S. Miller on this 27~~th~~ day of September, 2022.



\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: July 8, 2027



EMILIE SUNDERMAN  
Notary Public  
State of Ohio  
My Comm. Expires  
July 8, 2027

VERIFICATION

STATE OF NORTH CAROLINA )  
 ) SS:  
COUNTY OF MECKLENBURG )

The undersigned, Scott Burnside, Manager Unit Commitment, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests are true and correct to the best of his knowledge, information and belief.

*Scott Burnside*  
\_\_\_\_\_  
Scott Burnside, Affiant

Subscribed and sworn to before me by Scott Burnside on this 27 day of September, 2022.



*Cecil W. Mann Jr.*  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: March 20,  
2027

**KyPSC Case No. 2022-00267**  
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**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-001**

**REQUEST:**

For the period under review, provide the amount of coal purchased in tons and the percentage of purchases that were spot versus contract.

**RESPONSE:**

For the period under review from November 1, 2021 through April 30, 2022, please see STAFF-DR-01-001 Attachment.

**PERSON RESPONSIBLE:** Kimberly Hughes

**Duke Energy Kentucky**  
**Case No. 2022-00267- Staff First Set Data Requests**  
**Coal purchased November 1, 2021 - April 30, 2022**

<u>Vendor</u>	<u>Purchase Tonnage</u>	<u>Purchase Type</u>	<u>Contract #</u>	<u>Filed with Commission</u>	<u>If no, Explain why</u>
Knighthawk	72,547	Contract	DEK 33097	2/25/2019	
Central Coal Co	83,964	Contract	DEK 33982	2/7/2020	
Alliance Coal LLC	39,258	Contract	DEK 34704	3/8/2022	
Alliance Coal LLC	88,112	Contract	DEK 34466	6/4/2021	
Central Coal Co	110,621	Contract	DEK 34495	6/4/2021	
Central Coal Co	46,417	Contract	DEK 34725	3/8/2022	
Alliance Coal LLC	100,809	Spot	DEK 34697	3/8/2022	
Iron Coal Sales	6,527	Spot	DEK 34716	3/8/2022	
Total	<u><b>548,254</b></u>				
	<b>80%</b>	<b>Contract</b>			
	<b>20%</b>	<b>Spot</b>			
	<b>100%</b>	<b>Total</b>			

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-002**

**REQUEST:**

For the period under review, list each coal purchase made under a long-term contract (one year or greater). For each purchase, list:

- a. Contract or purchase order number;
- b. The supplier's name;
- c. The location(s) of production facilities from which the coal is sourced;
- d. The method of delivery, (i.e., barge, truck, rail, other);
- e. The actual quantity received during the review period;
- f. The tonnage requirement for the review period; and
- g. Current price paid per ton.

**RESPONSE:**

- a. 33097
- b. Knight Hawk Coal LLC
- c. Knight Hawk's Prairie Eagle Mine, IL
- d. Barge
- e. 72,547
- f. 125,000
- g. \$41.03

- a. 33982
- b. Central Coal Company as agent for Knight Hawk Coal, LLC
- c. Knight Hawk's Prairie Eagle Mine, IL
- d. Barge
- e. 83,964
- f. 162,500
- g. \$34.50

- a. 34495
- b. Central Coal Company as agent for Knight Hawk Coal, LLC
- c. Knight Hawk's Prairie Eagle Mine, IL
- d. Barge
- e. 110,621
- f. 110,000
- g. \$39.90

- a. 34725
- b. Central Coal Company as agent for Knight Hawk Coal, LLC
- c. Knight Hawk's Prairie Eagle Mine, IL
- d. Barge
- e. 46,417
- f. 50,000
- g. \$44.90

- a. 34704
- b. Alliance Coal, LLC
- c. Tunnel Ridge, Ohio County, WV
- d. Barge
- e. 39,258
- f. 100,000
- g. \$55.00

- a. 34466
- b. Alliance Coal, LLC
- c. Tunnel Ridge, Ohio County, WV
- d. Barge
- e. 88,112
- f. 100,000
- g. \$39.00

**PERSON RESPONSIBLE:** Kimberly Hughes

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-003**

**REQUEST:**

As of the last day of the review period:

- a. State the coal inventory level in tons and in number of days' supply. Provide this information by generating station and in the aggregate.
- b. Describe the criteria used to determine number of days' supply.
- c. State the target coal inventory level for each generating station and for the total system.
- d. If actual coal inventory exceeds the target inventory by ten days' supply, state the reasons for the excess inventory.
- e. State whether any significant changes in the current coal inventory target are expected within the next 12 months. If so, state the expected change and the reasons for this change.

**RESPONSE:**

- a. Duke Energy Kentucky's total aggregate inventory across the system as of April 30, 2022 was 254,350 tons, or 39 days. This total inventory is for East Bend Station, which is the only coal-fired generating station in the Duke Energy Kentucky fleet.
- b. The number of days' supply is computed by dividing the ending coal inventory number stated in tons by the Full Load Burn figure of 6,500 tons per day.

- c. The target goal inventory is an annual average of 45 days compared to the actual inventory amount of 39 days on April 30, 2022, for East Bend Station which is the only coal-fired generating station in the Duke Energy Kentucky fleet.
- d. Duke Energy Kentucky's coal inventory did not exceed the inventory target by ten days of supply.
- e. Duke Energy Kentucky does not expect any significant changes in its current coal inventory target within the next 12 months.

**PERSON RESPONSIBLE:** Kimberly Hughes

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-004**

**REQUEST:**

List each written coal supply solicitation issued during the period under review.

- a. For each solicitation, provide the date of the solicitation, the type of solicitation (contract or spot), the quantities solicited, a general description of the quality of coal solicited, the period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
- b. For each solicitation, state the number of vendors to whom the solicitation was sent, the number of vendors who responded, and the selected vendor. Provide the bid tabulation sheet or corresponding document that ranked the proposals. (This document should identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.

**RESPONSE:**

- a. Duke Energy Kentucky did not issue a written coal supply solicitation during November 1, 2021 through April 30, 2022.
- b. N/A

**PERSON RESPONSIBLE:** Kimberly Hughes



**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-005**

**REQUEST:**

List each oral coal supply solicitation issued during the period under review.

- a. For each solicitation, state why the solicitation was not written, the date(s) of the solicitation, the quantities solicited, a general description of the quality of coal solicited, the period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
- b. For each solicitation, identify all vendors solicited and the vendor selected. Provide the tabulation sheet or other document that ranks the proposals. (This document should identify all vendors who made offers.) State the reasons for each selection.  
  
For each lowest-cost bid not selected, explain why the bid was not selected.

**RESPONSE:**

- a. Duke Energy Kentucky did not issue an oral coal supply solicitation during November 1, 2021 through April 30, 2022.
- b. N/A

**PERSON RESPONSIBLE:**     Kimberly Hughes

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-006**

**REQUEST:**

For the period under review, list each vendor from whom natural gas was purchased for generation and the quantities and the nature of each purchase (i.e., spot or contract).

**RESPONSE:**

Please see STAFF-DR-01-006 Attachment which lists each vendor from whom natural gas was purchased for the period of November 1, 2021 to April 30, 2022.

**PERSON RESPONSIBLE:** Jim McClay

**Duke Energy Kentucky - Physical Natural Gas Purchases  
 November 1, 2021 -April 30, 2022**

Spot/Contract	Counterpart	Start Date	End Date	Buy/Sell	Qty	Qty UOM
Spot	TENASKA MARKETING VE	1-Nov-21	1-Nov-21	Buy	14,000	MMBtu
Spot	Eco Energy Nat Gas	2-Nov-21	2-Nov-21	Buy	5,000	MMBtu
Spot	Eco Energy Nat Gas	3-Nov-21	3-Nov-21	Buy	9,000	MMBtu
Spot	Vitol Inc.	4-Nov-21	4-Nov-21	Buy	16,697	MMBtu
Spot	Vitol Inc.	7-Nov-21	7-Nov-21	Buy	4,985	MMBtu
Spot	Eco Energy Nat Gas	14-Nov-21	14-Nov-21	Buy	5,000	MMBtu
Spot	Vitol Inc.	14-Nov-21	14-Nov-21	Buy	10,000	MMBtu
Spot	Eco Energy Nat Gas	23-Nov-21	23-Nov-21	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	22-Nov-21	22-Nov-21	Buy	2,000	MMBtu
Spot	Eco Energy Nat Gas	23-Nov-21	23-Nov-21	Buy	12,000	MMBtu
Spot	Eco Energy Nat Gas	29-Nov-21	29-Nov-21	Buy	8,000	MMBtu
Spot	TENASKA MARKETING VE	7-Dec-21	7-Dec-21	Buy	14,000	MMBtu
Spot	Twin Eagle Resource Management, LLC	5-Jan-22	5-Jan-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	6-Jan-22	6-Jan-22	Buy	5,000	MMBtu
Spot	Twin Eagle Resource Management, LLC	7-Jan-22	7-Jan-22	Buy	25,000	MMBtu
Spot	Eco Energy Nat Gas	7-Jan-22	7-Jan-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	9-Jan-22	9-Jan-22	Buy	5,000	MMBtu
Spot	Vitol Inc.	10-Jan-22	10-Jan-22	Buy	5,000	MMBtu
Spot	Twin Eagle Resource Management, LLC	16-Jan-22	16-Jan-22	Buy	10,000	MMBtu
Spot	Twin Eagle Resource Management, LLC	16-Jan-22	16-Jan-22	Buy	4,000	MMBtu
Spot	TENASKA MARKETING VE	17-Jan-22	17-Jan-22	Buy	5,000	MMBtu
Spot	Vitol Inc.	18-Jan-22	18-Jan-22	Buy	5,000	MMBtu
Spot	Eco Energy Nat Gas	19-Jan-22	19-Jan-22	Buy	5,000	MMBtu
Spot	Vitol Inc.	19-Jan-22	19-Jan-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	20-Jan-22	20-Jan-22	Buy	5,000	MMBtu
Spot	Eco Energy Nat Gas	20-Jan-22	20-Jan-22	Buy	10,000	MMBtu
Spot	TENASKA MARKETING VE	21-Jan-22	21-Jan-22	Buy	15,000	MMBtu
Spot	Vitol Inc.	21-Jan-22	21-Jan-22	Buy	25,000	MMBtu
Spot	Vitol Inc.	21-Jan-22	21-Jan-22	Buy	25,000	MMBtu
Spot	TENASKA MARKETING VE	22-Jan-22	22-Jan-22	Buy	15,000	MMBtu
Spot	TENASKA MARKETING VE	23-Jan-22	23-Jan-22	Buy	15,000	MMBtu
Spot	TENASKA MARKETING VE	24-Jan-22	24-Jan-22	Buy	15,000	MMBtu
Spot	TENASKA MARKETING VE	25-Jan-22	25-Jan-22	Buy	15,000	MMBtu
Spot	Eco Energy Nat Gas	4-Feb-22	4-Feb-22	Buy	9,000	MMBtu
Spot	Vitol Inc.	14-Feb-22	14-Feb-22	Buy	3,000	MMBtu
Spot	Vitol Inc.	11-Mar-22	11-Mar-22	Buy	3,000	MMBtu
Spot	Eco Energy Nat Gas	12-Mar-22	12-Mar-22	Buy	10,000	MMBtu
Spot	Eco Energy Nat Gas	13-Mar-22	13-Mar-22	Buy	12,000	MMBtu

**Duke Energy Kentucky - Physical Natural Gas Purchases  
 November 1, 2021 -April 30, 2022**

<b>Spot/Contract</b>	<b>Counterpart</b>	<b>Start Date</b>	<b>End Date</b>	<b>Buy/Sell</b>	<b>Qty</b>	<b>Qty UOM</b>
Spot	TENASKA MARKETING VE	12-Mar-22	12-Mar-22	Buy	15,000	MMBtu
Spot	Eco Energy Nat Gas	26-Mar-22	26-Mar-22	Buy	5,000	MMBtu
Spot	Eco Energy Nat Gas	27-Mar-22	27-Mar-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	27-Mar-22	27-Mar-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	28-Mar-22	28-Mar-22	Buy	6,000	MMBtu
Spot	TENASKA MARKETING VE	1-Apr-22	1-Apr-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	2-Apr-22	2-Apr-22	Buy	5,000	MMBtu
Spot	TENASKA MARKETING VE	2-Apr-22	2-Apr-22	Buy	5,000	MMBtu
Spot	Vitol Inc.	4-Apr-22	4-Apr-22	Buy	5,000	MMBtu
Spot	Twin Eagle Resource Management, LLC	8-Apr-22	8-Apr-22	Buy	4,000	MMBtu
Spot	Twin Eagle Resource Management, LLC	9-Apr-22	9-Apr-22	Buy	4,000	MMBtu

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-007**

**REQUEST:**

For the period under review, state whether there were any instances in which a natural gas generating unit could not be operated when it otherwise would have run due to pipeline constraints or natural gas being unavailable.

**RESPONSE:**

For the period under review, there were no instances in which a natural gas generating unit could not be operated when it otherwise would have run due to pipeline constraints or natural gas being unavailable. There were no issues during the period with pipeline gas pressure that caused Woodsdale units to be removed from service. Because of Woodsdale station's dual fuel capability, if Woodsdale encounters pipeline constraints or unavailability of natural gas, the station is not prevented from operating because the units are available to be dispatched on oil during those times. There were occasional issues with TETCO issued Operational Flow Orders ("OFO") that resulted in the necessity to utilize Woodsdale station's dual fuel offer capability, which allows the units to be offered and available to run on oil when there is an interruption or constraint in gas supply.

**PERSON RESPONSIBLE:** Brad Daniel

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-008**

**REQUEST:**

State whether there have been any changes to hedging activities for coal or natural gas purchases used for generation since the previous FAC review proceeding. If so, describe the changes in detail.

**RESPONSE:**

**Coal:**

Duke Energy Kentucky did not engage in financial hedging transactions with respect to coal purchases. Duke Energy Kentucky contracts for physical deliveries of coal through fixed term coal transactions within a balanced portfolio of purchases. The Company also maintains a portfolio with multiple suppliers to mitigate potential supply interruption risk.

**Natural Gas:**

Duke Energy Kentucky did not engage in any financial hedging activity for natural gas purchases used for generation.

**PERSON RESPONSIBLE:** Kimberly Hughes  
Jim McClay

**REQUEST:**

State whether Duke Kentucky has audited any of its fuel or transportation contracts during the period under review. If so, for each audited contract:

- a. Identify the contract;
- b. Identify the auditor; and
- c. State the results of the audit, and describe the actions that Duke Kentucky took as a result of the audit.

**RESPONSE:**

**Coal**

Duke Energy Kentucky has not audited any of its coal or coal transportation contracts during the period of November 1, 2021 through April 30, 2022.

**Natural Gas, Natural Gas Transportation, and Fuel Oil**

Duke Energy Kentucky has not audited any of its fuel or transportation contracts during the period of November 1, 2021 through April 30, 2022.

**PERSON RESPONSIBLE:** Kimberly Hughes  
Jim McClay

**REQUEST:**

- a. State whether Duke Kentucky is currently involved in any litigation with its current or former fuel suppliers or transportation vendors. If so, for each litigation:
  - (1) Identify the suppliers or vendor;
  - (2) Identify the contract involved;
  - (3) State the potential liability or recovery to Duke Kentucky;
  - (4) List the issues presented; and
  - (5) Provide a copy of the complaint or other legal pleading that initiated the litigation and any answers or counterclaims. If a copy has previously been filed with the Commission, provide the date on which it was filed and the case in which it was filed.
- b. State the current status of all litigation with suppliers or vendors.

**RESPONSE:**

- a. Duke Energy Kentucky is not currently involved in any litigation with its current or former fuel suppliers or transportation vendors.
- b. N/A

**PERSON RESPONSIBLE:**                     Kimberly Hughes  
   Jim McClay



**CONFIDENTIAL STAFF-DR-01-011  
(As to Attachment only)**

**REQUEST:**

- a. For the period under review, state whether there have been any changes to Duke Kentucky's written policies and procedures regarding its fuel procurement. If yes:
  - (1) Describe the changes;
  - (2) Provide the written policies and procedures as changed;
  - (3) State the date(s) the changes were made; and
  - (4) Explain why the changes were made.
- b. If no, provide the date Duke Kentucky's current fuel procurement policies and procedures were last changed, provide the date when they were last provided to the Commission, and identify the proceeding in which they were provided.

**RESPONSE:**

**CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)**

**Coal, Natural Gas, and Fuel Oil**

- a. There have been changes to Duke Energy Kentucky's written policies and procedures regarding its fuel procurement.

The **Regulated Risk Limits Manual** was updated on January 20, 2022. Please see STAFF-DR-01-011 Confidential Attachment. Below are the changes made to the manual since November 1, 2021:

- Section IV Natural Gas and Oil item D, removed entirely as propane is no longer used in Duke Energy Kentucky;

- Appendix B note, strike the reference to hedging for forced outages. The commission has ruled we are not allowed to hedge power for forced outages;
  - Added “Stochastics Mean” to Appendix B;
  - Removed the example as it is not applicable for an ISO; and,
  - Miscellaneous typos.
- b. There were no changes to the **Regulated Utilities Risk Management Control Manual**. The Regulated Utilities Risk Management Control Manual was updated and approved on January 7, 2021. The “Regulated Utilities Risk Management Control Manual” document was submitted with the Company’s responses to Staff’s requests for information in Case No. 2021-00296.

#### **Coal**

- a. The procedures in response to (b) below remained unchanged during the period under review.
- b. There were no changes to the **Coal and Reagents Procedure**. The Coal and Reagents Procedures was updated on March 1, 2021. This document was submitted with the Company’s responses to Commission Staff’s First Request for Information in Case No. 2021-00296.

#### **Natural Gas & Fuel Oil**

- a. The procedures in response to (b) below remained unchanged during the period under review.
- b. The Fuels and System Optimization (FSO) DEK Emissions Trading Process & Procedure Check List,” and the “Fuel Oil Emergency Procedure” were updated in May 2015, and June 2015, respectively. These two documents were submitted with the Company’s responses to Commission Staff’s First Requests for Information in

Case No. 2017-00005. The “DEI and DEK Gas Trading Procedure for Off-Premise Transactions” was updated in June 2019 and it was submitted with the Company’s responses to Commission Staff’s First Requests for Information in Case No. 2020-00008.

**PERSON RESPONSIBLE:** Kimberly Hughes  
Jim McClay

**CONFIDENTIAL PROPRIETARY TRADE  
SECRET**

**STAFF-DR-01-011  
CONFIDENTIAL ATTACHMENT**

**FILED UNDER SEAL**

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-012**

**REQUEST:**

For the period under review, list all firm power commitments for (a) purchases and (b) sales. This list shall identify the electric utility, the amount of commitment in megawatts, and the purpose of the commitment (i.e., peaking, emergency).

**RESPONSE:**

Duke Energy Kentucky had no firm power commitments during this period.

**PERSON RESPONSIBLE:** Jim McClay  
Brad Daniel

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-013**

**REQUEST:**

Provide a monthly billing summary of sales to all electric utilities for the period under review.

**RESPONSE:**

Please see STAFF-DR-01-013 Attachment.

**PERSON RESPONSIBLE:** Libbie S. Miller

DUKE ENERGY KENTUCKY  
 POWER TRANSACTION SCHEDULE

Supplier/Buyer		Transaction Type	kWh	Charges (\$)			
				Demand	Fuel	Other	Total
<b>Month Ended November 30,2021</b>							
PJM Interconnection, LLC	Economy Sales		0	0	0	0	0
	Total Sales		0	0	0	0	0
<b>Month Ended December 31,2021</b>							
PJM Interconnection, LLC	Economy Sales		747,460 <sup>(a)</sup>		35,173	(13,916)	21,257
	Total Sales		747,460	0	35,173	(13,916)	21,257
<b>Month Ended January 31,2022</b>							
PJM Interconnection, LLC	Economy Sales		19,030,790		1,285,864	(6,924)	1,278,940
	Total Sales		19,030,790	0	1,285,864	(6,924)	1,278,940
<b>Month Ended February 28,2022</b>							
PJM Interconnection, LLC	Economy Sales		13,605,420		332,289	273,128	605,417
	Total Sales		13,605,420	0	332,289	273,128	605,417
<b>Month Ended March 31,2022</b>							
PJM Interconnection, LLC	Economy Sales		13,903,970		471,415	251,230	722,645
	Total Sales		13,903,970	0	471,415	251,230	722,645
<b>Month Ended April 30,2022</b>							
PJM Interconnection, LLC	Economy Sales		12,868,920		522,618	641,460	1,164,078
	Total Sales		12,868,920	0	522,618	641,460	1,164,078

Notes:

<sup>(a)</sup> East Bend was on a planned maintenance outage from mid-September through December 25, 2021

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-014**

**REQUEST:**

Describe the effect on the FAC calculation of line losses related to:

- a. Intersystem sales when using a third-party transmission system; and
- b. Intersystem sales when not using a third-party transmission system.

**RESPONSE:**

- a. Duke Energy Kentucky did not have any intersystem sales during the review period.
- b. N/A

**PERSON RESPONSIBLE:**

Brad Daniel  
Libbie S. Miller



**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-015**

**REQUEST:**

Provide a list, in chronological order, showing by unit any scheduled, actual, and forced outages for the period under review.

**RESPONSE:**

Please see STAFF-DR-01-015 Attachment.

**PERSON RESPONSIBLE:** Brad Daniel

Unit	Event Type	Month	Scheduled Hours	Forced Hours	Actual Hours	Event Duration			
						Hours	Event Start	Event End	Event Description
East Bend 2	PO	September	1,705.97		1,705.97	1,705.97	9/11/21 3:02 AM	11/21/21 5:00 AM	Planned Fall Outage
East Bend 2	PE	November	669.47		669.47	669.47	11/21/21 5:00 AM	12/19/21 2:28 AM	Unit 2 Planned Fall Outage Extension for Turbine/Generator Work
East Bend 2	U1	December		168.20	168.20	168.20	12/19/21 2:28 AM	12/26/21 2:40 AM	Exciter repairs
East Bend 2	PO	December	1.73		1.73	1.73	12/26/21 2:44 AM	12/26/21 4:28 AM	5 MW Trip to Test Relays
East Bend 2	U1	December		13.23	13.23	13.23	12/26/21 2:54 PM	12/27/21 4:08 AM	Lost drop 25/75 Feedwater Controls
East Bend 2	U1	December		10.23	10.23	10.23	12/27/21 8:46 AM	12/27/21 7:00 PM	turbine vibration trip
East Bend 2	MO	December	26.77		26.77	26.77	12/31/21 2:14 AM	1/1/22 5:00 AM	Generator Vibration
East Bend 2	MO	January	17.45		17.45	17.45	1/1/22 5:01 AM	1/1/22 10:28 PM	Generator Vibration
East Bend 2	MO	January	23.30		23.30	23.30	1/3/22 3:01 AM	1/4/22 2:19 AM	#9 Balance shot
East Bend 2	U1	January		31.00	31.00	31.00	1/18/22 9:59 PM	1/20/22 4:59 AM	Loss of EH due to pipe failure on Governor valves
East Bend 2	U1	January		0.60	0.60	0.60	1/20/22 5:04 AM	1/20/22 5:40 AM	Feedwater trip
East Bend 2	MO	February	73.57		73.57	73.57	2/1/22 4:24 AM	2/4/22 5:58 AM	2-2 SAH Basket failure
East Bend 2	U1	February		10.13	10.13	10.13	2/8/22 7:28 AM	2/8/22 5:36 PM	2-2 preheat coil pump failure caused low voltage and tripped 2 out of 3 feeders
East Bend 2	MO	April	406.70		406.70	406.70	4/20/22 5:34 AM	5/7/22 4:16 AM	Spring Maintenance Outage- Secondary Air Heater baskets and FGD duct work/ misc. C
Woodsdale CT-1	PO	December	83.23		83.233	83.23	12/11/21 11:00 AM	12/14/21 10:14 PM	Perform Eddy Current Testing on row 4 turbine blades.
Woodsdale CT-1	PO	March	178.85		178.85	178.85	3/18/22 10:00 AM	3/25/22 8:51 PM	Boroscope inspection
Woodsdale CT-1	MO	April	204.97		204.967	204.97	4/6/22 10:00 AM	4/14/22 10:58 PM	TB39 Bank Ourage to find GT1 Bus Ground
Woodsdale CT-2	SF	January		1.50	1.5	1.50	1/7/22 12:45 PM	1/7/22 2:15 PM	Starting Breaker would not close.
Woodsdale CT-2	U1	March		3.05	3.05	3.05	3/15/22 1:12 PM	3/15/22 4:15 PM	Rotor bar stopped
Woodsdale CT-2	PO	March	178.82		178.817	178.82	3/18/22 10:00 AM	3/25/22 8:49 PM	Boroscope inspection
Woodsdale CT-2	MO	April	204.97		204.967	204.97	4/6/22 10:00 AM	4/14/22 10:58 PM	TB39 Bank Outage to find GT1 Bus Ground
Woodsdale CT-3	U1	November		14.33	14.333	14.33	11/12/21 2:11 AM	11/12/21 4:31 PM	Low SF6 Gas in 1504 Breaker (OMC)
Woodsdale CT-3	PO	March					3/18/22 10:00 AM		Generator Field Rewind
Woodsdale CT-4	U1	November		14.33	14.333	14.33	11/12/21 2:11 AM	11/12/21 4:31 PM	Low SF6 Gas in 1504 Breaker (OMC)
Woodsdale CT-4	SF	January		1.68	1.683	1.68	1/23/22 8:30 AM	1/23/22 10:11 AM	Gen Exciter Synchronizer blocked.
Woodsdale CT-4	PO	March	178.80		178.8	178.80	3/18/22 10:00 AM	3/25/22 8:48 PM	Boroscope inspection
Woodsdale CT-4	PO	March	58.00		58	58.00	3/30/22 1:00 PM	4/1/22 11:00 PM	Opened Bank 1602 to move crane for GT3 Gen lift.
Woodsdale CT-5	U1	December		1.22	1.217	1.22	12/8/21 1:03 AM	12/8/21 2:16 AM	Exhaust TC Temp Spread High Trip
Woodsdale CT-5	U1	December		29.88	29.883	29.88	12/21/21 9:25 AM	12/22/21 3:18 PM	Variable Inlet Guide Vanes problem.
Woodsdale CT-5	PO	April	126.63		126.633	126.63	4/23/22 10:00 AM	4/28/22 4:38 PM	Boroscope inspection
Woodsdale CT-6	SF	November		3.92	3.917	3.92	11/5/21 9:55 AM	11/5/21 1:50 PM	Synchronizer problem
Woodsdale CT-6	U1	November		1.60	1.6	1.60	11/11/21 2:03 PM	11/11/21 3:39 PM	Failed start, fuel oil preheater did not come on
Woodsdale CT-6	U1	March		5.57	5.567	5.57	3/29/22 10:00 AM	3/29/22 3:34 PM	Rotor bar stopped.
Woodsdale CT-6	PO	April	129.20		129.2	129.20	4/23/22 10:00 AM	4/28/22 7:12 PM	Boroscope inspection

**Event Type Legend:**

- PO Planned Outage
- PE Planned Outage Extension
- MO Maintenance Outage
- ME Maintenance Outage Extension
- U1 Unplanned (Forced) Outage – Immediate
- U2 Unplanned (Forced) Outage – Delayed
- U3 Unplanned (Forced) Outage – Postponed
- SF Startup Failure

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-016**

**REQUEST:**

For the period under review, provide the monthly supporting peaking unit equivalent calculations in electronic Excel spreadsheet format with all formulas, columns, and rows unprotected, fully accessible, and visible supporting the forced outage calculations. In addition, provide the corresponding amount, if any, of forced outage purchased power collected through the purchase power adjustment tariff.

**RESPONSE:**

Duke Energy Kentucky does not use peaking unit equivalent calculations in support of forced outage calculations. Also, Duke Energy Kentucky does not collect forced outage purchased power through an adjustment tariff; however, Duke Energy Kentucky does have deferral authority from Case No. 2017-00321 to defer forced outage purchased power in excess of what is already included in base rates.

**PERSON RESPONSIBLE:** Scott Burnside  
Libbie S. Miller

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-017**

**REQUEST:**

For the period under review, provide the monthly capacity factor at which each generating unit operated.

**RESPONSE:**

**East Bend**

<u>Month</u>	<u>Net MWH</u>	<u>Period Hours *</u>	<u>MW Rating</u>	<u>MW Hours</u>	<u>Net Capacity Factor</u>
November-21	(4,767)	721	600	432,600	-1.10%
December-21	20,428	744	600	446,400	4.58%
January-22	348,843	744	600	446,400	78.15%
February-22	267,513	672	600	403,200	66.35%
March-22	281,511	743	600	445,800	63.15%
April-22	<u>173,809</u>	<u>720</u>	<u>600</u>	<u>432,000</u>	<u>40.23%</u>
<b>Total</b>	<b>1,087,337</b>	<b>4,344</b>	<b>600</b>	<b>2,606,400</b>	<b>41.72%</b>

**Total Period - Woodsdale**

<u>Woodsdale Station</u>	<u>Net MWH</u>	<u>Period Hours</u>	<u>MW Rating</u>	<u>MW Hours</u>	<u>Net Capacity Factor</u>
Unit 1	2,698	4,344	91.33	396,808	0.68%
Unit 2	2,033	4,344	91.33	396,808	0.51%
Unit 3	2,412	4,344	91.33	396,808	0.61%
Unit 4	2,422	4,344	91.33	396,808	0.61%
Unit 5	1,775	4,344	91.33	396,808	0.45%
Unit 6	<u>1,986</u>	<u>4,344</u>	<u>91.33</u>	<u>396,808</u>	<u>0.50%</u>
<b>Total</b>	<b>13,326</b>	<b>26,064</b>	<b>91.33</b>	<b>2,380,848</b>	<b>0.56%</b>

**Nov-21**

Woodsdale <u>Station</u>	Net <u>MWH</u>	Period <u>Hours *</u>	MW <u>Rating</u>	MW <u>Hours</u>	Net Capacity <u>Factor</u>
Unit 1	1,353	721	86	62,006	2.18%
Unit 2	1,401	721	86	62,006	2.26%
Unit 3	1,487	721	86	62,006	2.40%
Unit 4	1,214	721	86	62,006	1.96%
Unit 5	1,171	721	86	62,006	1.89%
Unit 6	<u>916</u>	<u>721</u>	86	<u>62,006</u>	<u>1.48%</u>
Total	7,542	4,326	86	372,036	2.03%

**Dec-21**

Woodsdale <u>Station</u>	Net <u>MWH</u>	Period <u>Hours</u>	MW <u>Rating</u>	MW <u>Hours</u>	Net Capacity <u>Factor</u>
Unit 1	30	744	94	69,936	0.04%
Unit 2	17	744	94	69,936	0.02%
Unit 3	32	744	94	69,936	0.05%
Unit 4	5	744	94	69,936	0.01%
Unit 5	(97)	744	94	69,936	-0.14%
Unit 6	<u>80</u>	<u>744</u>	94	<u>69,936</u>	<u>0.11%</u>
Total	67	4,464	94	419,616	0.02%

**Jan-22**

Woodsdale <u>Station</u>	Net <u>MWH</u>	Period <u>Hours</u>	MW <u>Rating</u>	MW <u>Hours</u>	Net Capacity <u>Factor</u>
Unit 1	868	744	94	69,936	1.24%
Unit 2	417	744	94	69,936	0.60%
Unit 3	825	744	94	69,936	1.18%
Unit 4	733	744	94	69,936	1.05%
Unit 5	281	744	94	69,936	0.40%
Unit 6	<u>432</u>	<u>744</u>	94	<u>69,936</u>	<u>0.62%</u>
Total	3,556	4,464	94	419,616	0.85%

**Feb-22**

Woodsdale <u>Station</u>	Net <u>MWH</u>	Period <u>Hours</u>	MW <u>Rating</u>	MW <u>Hours</u>	Net Capacity <u>Factor</u>
Unit 1	60	672	94	63,168	0.09%
Unit 2	(163)	672	94	63,168	-0.26%
Unit 3	64	672	94	63,168	0.10%
Unit 4	74	672	94	63,168	0.12%
Unit 5	62	672	94	63,168	0.10%
Unit 6	<u>120</u>	<u>672</u>	94	<u>63,168</u>	<u>0.19%</u>
Total	217	4,032	94	379,008	0.06%

**Mar-22**

Woodsdale <u>Station</u>	Net <u>MWH</u>	Period <u>Hours *</u>	MW <u>Rating</u>	MW <u>Hours</u>	Net Capacity <u>Factor</u>
Unit 1	162	743	94	69,842	0.23%
Unit 2	132	743	94	69,842	0.19%
Unit 3	91	743	94	69,842	0.13%
Unit 4	131	743	94	69,842	0.19%
Unit 5	128	743	94	69,842	0.18%
Unit 6	<u>133</u>	<u>743</u>	94	<u>69,842</u>	<u>0.19%</u>
Total	777	4,458	94	419,052	0.19%

**Apr-22**

Woodsdale <u>Station</u>	Net <u>MWH</u>	Period <u>Hours</u>	MW <u>Rating</u>	MW <u>Hours</u>	Net Capacity <u>Factor</u>
Unit 1	225	720	86	61,920	0.36%
Unit 2	229	720	86	61,920	0.37%
Unit 3	(87)	720	86	61,920	-0.14%
Unit 4	265	720	86	61,920	0.43%
Unit 5	230	720	86	61,920	0.37%
Unit 6	<u>305</u>	<u>720</u>	86	<u>61,920</u>	<u>0.49%</u>
Total	1,167	4,320	86	371,520	0.31%

\* November and March period hours adjusted by 1 hour for daylight savings time

**PERSON RESPONSIBLE:**

Brad Daniel  
Libbie S. Miller

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-018**

**REQUEST:**

For the period under review, explain whether Duke Kentucky made any changes to its maintenance and operation practices or completed any specific generation efficiency improvements that affect fuel usage at Duke Kentucky's generation facilities. If so, describe the impact of these changes on Duke Kentucky's fuel usage.

**RESPONSE:**

During the period under review, there have been no changes to maintenance and operation practices or completions of any specific generation efficiency improvements that affect fuel usage at Duke Energy Kentucky's generation facilities.

**PERSON RESPONSIBLE:** Brad Daniel  
Brett Riggins

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-019**

**REQUEST:**

State whether Duke Kentucky is aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period under review.

**RESPONSE:**

Duke Energy Kentucky is not aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period under review.

**PERSON RESPONSIBLE:** Kimberly Hughes  
Jim McClay



**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-020**

**REQUEST:**

State whether Duke Kentucky is aware of any violations of 807 KAR 5:056 that occurred prior to or during the period under review.

**RESPONSE:**

Pursuant to the March 24, 2022, Order of the Public Service Commission of the Commonwealth of Kentucky (Commission) in Case No. 2021-00296, Duke Energy Kentucky updated its Fuel Adjustment Clause (FAC) tariff to implement the revisions ordered by the Commission on April 1, 2022, with an effective date of April 4, 2022. Duke Energy Kentucky has followed this updated tariff language in its FAC calculation prior to and during the period under review even though the tariff sheet was updated only effective April 4, 2022. Except insofar as Duke Energy Kentucky needed to update the tariff language, Duke Kentucky is not aware of any violation of 807 KAR 5:056 that occurred prior to or during the period under review.

**PERSON RESPONSIBLE:** Libbie S. Miller

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-021**

**REQUEST:**

State whether all fuel contracts related to commodity and transportation have been filed with the Commission. If any contracts have not been filed, explain why they have not been filed, and provide a copy.

**RESPONSE:**

**Coal:**

All contracts for long-term and short-term (spot) coal and transportation agreements have been filed with the Commission.

**Natural Gas:**

All contracts for natural gas and gas transportation contracts have been filed with the Commission.

**Fuel Oil:**

All contracts for fuel oil and fuel oil transportation contracts have been filed with the Commission.

**PERSON RESPONSIBLE:** Kimberly Hughes  
Jim McClay

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-022**

**REQUEST:**

Refer to KRS 278.277(1) which states that:

In any review by the commission of any fuel adjustment clause, for any contracts entered into on or after July 1, 2021, the commission shall, in determining the reasonableness of fuel costs in procurement contracts and fuel procurement practices, evaluate the reasonableness of fuel costs in contracts and competing bids based on the cost of the fuel less any coal severance tax imposed by any jurisdiction.

- a. Provide a listing of any new coal contracts entered into on or since November 1, 2021.
- b. For each bid solicitation or potential spot purchase that resulted in a new purchase contract on or after November 1, 2021, provide the bid evaluation sheets that include:
  - (1) The coal severance tax rate being levied, if any;
  - (2) The coal severance tax rate per ton or MMBTU, as appropriate, being levied;
  - (3) The cost per ton on MMBTU, as appropriate, including any severance tax; and
  - (4) The cost per ton or MMBTU, as appropriate, excluding any severance tax.

**RESPONSE:**

- a. Duke Energy Kentucky did not enter into any new coal contracts during this FAC review period, November 1, 2021 through April 30, 2022.

b. N/A

**PERSON RESPONSIBLE:** Kimberly Hughes

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-023**

**REQUEST:**

State whether any PJM costs were included in Duke Kentucky'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:**

Yes, some PJM costs were included in the monthly FAC filings during the period under review. Please see STAFF-DR-01-023 Attachment.

**PERSON RESPONSIBLE:** Libbie S. Miller

PJM Costs in FAC

<u>Type of Cost</u>		<u>November 2021</u>	<u>December 2021</u>	<u>January 2022</u>	<u>February 2022</u>	<u>March 2022</u>	<u>April 2022</u>
<u>Net Fuel Related RTO Billing Line Items</u>	<u>PJM BLI</u>						
1230-Inad Inter	1230	\$ 1,094.00	\$ 1,368.58	\$ 345.04	\$ 473.93	\$ 1,587.28	\$ 5,850.13
1250-Meter Err Cor	1250	\$ 90.53	\$ (33.03)	\$ 134.09	\$ 17.49	\$ (18.78)	\$ 11.14
1340-Regulation	1340	\$ (129,377.35)	\$ (72,625.86)	\$ (178,918.37)	\$ (77,257.56)	\$ (70,074.56)	\$ (127,136.09)
1360-Synch Reserve	1360	\$ (65,749.94)	\$ (31,966.59)	\$ (26,785.63)	\$ (16,703.53)	\$ (10,563.24)	\$ (28,576.27)
1370-Operating Resrv	1370	\$ (3,799.88)	\$ (7,590.52)	\$ (3,168.68)	\$ (2,043.16)	\$ (2,113.99)	\$ (2,581.66)
1375-Bal Opr Rsrv	1375	\$ (34,600.18)	\$ (18,672.35)	\$ (43,815.01)	\$ (13,034.30)	\$ (17,588.36)	\$ (23,155.00)
1500-FTR Shortfall	2211	\$ (19,086.69)	\$ (4,760.42)	\$ 19,060.88	\$ 1,242.23	\$ 2,520.06	\$ 73.73
1500-Mthly FTR Prem	1500	\$ 0.21	\$ 0.31	\$ 0.31	\$ 0.04	\$ 0.14	\$ 0.11
2215-Bal Trns Cng Cr	2215	\$ (160,552.56)	\$ (48,593.81)	\$ (642,038.65)	\$ (234,445.21)	\$ (185,209.93)	\$ (270,498.56)
2220-Tran Loss	2220	\$ 183,842.15	\$ 128,483.82	\$ 351,907.07	\$ 197,995.03	\$ 131,880.48	\$ 154,403.89
2340-Lost Opp. Cost	2340	\$ 57,770.40	\$ 874.73	\$ 1,339.10	\$ -	\$ 15,580.38	\$ 3,070.93
2360-Synch Reserve	2360	\$ 79,707.95	\$ 18,781.60	\$ 15,471.89	\$ -	\$ 31,630.61	\$ 33,595.52
2370-DA Op Rsrv Cr	2370	\$ 106.81	\$ -	\$ -	\$ -	\$ -	\$ -
2375-Bal Opr Rsrv Cr	2375	\$ 460,421.85	\$ 99,217.06	\$ 49,374.09	\$ 0.30	\$ 18,206.02	\$ 65,210.18
2510-ARR	2510	\$ 281,742.00	\$ 300,850.35	\$ 304,780.22	\$ 258,587.28	\$ 323,878.39	\$ 280,839.90
FTR	2211	\$ 132,243.67	\$ 46,396.72	\$ (68,961.81)	\$ 33,157.81	\$ 88,221.19	\$ 108,098.73
PJM Annual FTR Prem	1500	\$ (283,648.66)	\$ (293,103.63)	\$ (293,103.63)	\$ (264,738.76)	\$ (293,103.63)	\$ (283,648.66)
PJM Mthly FTR Prem	2500	\$ (21.35)	\$ (11,799.97)	\$ (19,755.50)	\$ (8,647.40)	\$ 26.39	\$ (203.95)
Reg.Supply	2340	\$ 142,570.10	\$ 11,192.31	\$ 98,794.51	\$ -	\$ 12,240.22	\$ 8,131.06
Total PJM Costs		\$ 642,753.06	\$ 118,019.28	\$ (435,340.07)	\$ (125,395.81)	\$ 47,098.67	\$ (76,514.86)
Congestion & Losses		\$ 213,804.06	\$ 324,513.25	\$ 75,242.43	\$ 361,910.24	\$ (5,553.48)	\$ 254,302.81
Net Fuel Related RTO Billing Line Items		\$ 428,949.00	\$ (206,493.97)	\$ (510,582.50)	\$ (487,306.05)	\$ 52,652.15	\$ (330,817.67)

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**CONFIDENTIAL STAFF-DR-01-024  
(As to Attachment only)**

**REQUEST:**

Explain how purchase power costs are accounted for in the calculation of the FAC when Duke Kentucky experiences a planned generation outage and purchases power to meet load (i.e., whether the entire amount of the purchase power recorded in the calculation, or there is a limit as to the amount recorded). If there is a limit, explain the basis for the limitation and how it is calculated. If there is no limit, explain the basis for including 100 percent of the purchase power costs.

**RESPONSE:**

**CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)**

The cost of purchased power included in the FAC when Duke Energy Kentucky experiences a planned generation outage is subject to a benchmark test.

The benchmark test compares the hourly \$/MWh price of purchased power to the average of the \$/MWh fuel cost of the Woodsdale station at minimum and maximum loads. If the purchased power cost in an hour exceeds the monthly benchmark price, then the cost of purchased power in that hour above the benchmark price is excluded from the FAC. The amount above the benchmark is removed in the monthly FAC filing on Schedules 2, 4, and 6 in Section B-Purchases, line description “Less purchases above highest cost units”.

Please see STAFF-DR-01-024 Confidential Attachment for an example of the benchmark calculation.

**PERSON RESPONSIBLE:** Scott Burnside

**CONFIDENTIAL PROPRIETARY TRADE  
SECRET**

**STAFF-DR-01-024  
CONFIDENTIAL ATTACHMENT**

**FILED UNDER SEAL**



**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-025**

**REQUEST:**

Explain how purchase power costs are accounted for in the calculation of the FAC when Duke Kentucky is not experiencing a generation outage but must purchase power in order to meet demand (i.e., whether the entire amount of the purchase power recorded in the calculation, or there is a limit as to the amount recorded). If there is a limit, explain the basis for the limitation and how it is calculated. If there is no limit, explain the basis for including 100 percent of the purchase power costs.

**RESPONSE:**

The cost of purchased power included in the FAC when Duke Energy Kentucky is not experiencing a generation outage but must purchase power in order to meet customer demand is subject to the same benchmark test described in STAFF-DR-01-024.

The benchmark test compares the hourly \$/MWh price of purchased power to the average of the \$/MWh fuel cost of the Woodsdale station at minimum and maximum loads. If the purchased power cost in an hour exceeds the benchmark price, then cost of purchased power in that hour above the benchmark price is excluded from the FAC. The amount above the benchmark is removed in the monthly FAC filing on Schedules 2, 4, and 6 in Section B-Purchases, line description "Less purchases above highest cost units".

Please see previously provided STAFF-DR-01-024 Confidential Attachment for an example of the benchmark calculation.

**PERSON RESPONSIBLE:** Scott Burnside

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-026**

**REQUEST:**

Provide the amount, by month, of costs excluded from recovery from the FAC related to non-economy purchases.

- a. State whether Duke Kentucky otherwise recovers the excluded costs.
- b. If Duke Kentucky does recover the excluded costs, explain in detail how those costs are recovered.

**RESPONSE:**

Please see STAFF-DR-01-026 Attachment for \$465,780.93 excluded from recovery from the FAC related to non-economy purchases.

- a. The Company has included a base line of \$1.6 million in base rates related to forced outage purchased power. Duke Energy Kentucky has deferral authority granted to it by the KPSC in Case No. 2017-00321 to defer non-economy purchases above or below this amount included in base rates.
- b. The Company monitors the balance of the deferral granted as explained in response to a. above. To the extent the deferral balance (debit or credit) rises to a significant level, the Company may seek recovery of the deferred balance (debit or credit) in a future base rate case proceeding.

**PERSON RESPONSIBLE:** Libbie S. Miller

Duke Energy Kentucky  
 Non-Economy Purchased Power  
 Final True-Up  
 November 2021 - April 2022

Expense Month: <u>Non-Economy Purchased Power</u>		<u>November 21</u> <u>Dollars (\$)</u>	<u>December 21</u> <u>Dollars (\$)</u>	<u>January 22</u> <u>Dollars (\$)</u>	<u>February 22</u> <u>Dollars (\$)</u>	<u>March 22</u> <u>Dollars (\$)</u>	<u>April 22</u> <u>Dollars (\$)</u>	<u>Total</u>
Fuel (assigned cost during Forced Outage <sup>(a)</sup> )	(+) \$	-	\$ 123,617.55	\$ 11,241.72	\$ 271,590.96	\$ -	\$ -	\$ 406,450.23
Fuel (substitute cost during Forced Outage <sup>(a)</sup> )	(-) \$	-	\$ -	\$ -	\$ 4,970.62	\$ -	\$ -	\$ 4,970.62
Other Purchases (substitute for Forced Outage <sup>(a)</sup> )	(-) \$	-	\$ 190,400.08	\$ 27,556.86	\$ 649,303.60	\$ -	\$ -	\$ 867,260.54
Less purchases above highest cost units	(-) \$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Non-Economical Purchased Power Disallowed		0.00	(66,782.53)	(16,315.14)	(382,683.26)	0.00	0.00	(465,780.93)

Note: <sup>(a)</sup> Forced Outage as defined in 807 KAR 5:056

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-027**

**REQUEST:**

Explain how Duke Kentucky’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 its 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.

**RESPONSE:**

Duke Energy Kentucky offers its units to PJM’s energy and ancillary service market for commitment and dispatch purposes based on variable production costs used for the calculation of incremental cost, no-load cost, and startup cost. These costs are comprised of the market price of fuel and emissions plus variable operation and maintenance costs. For purposes of clarification, “commitment” means the decision to start a generator that is offline or to maintain online output from a generator that is already online and “dispatch” means the decision to operate an already committed generator at a certain megawatt output level. Once a unit has been committed and online above its economic minimum load, Duke Energy Kentucky predominantly follows PJM dispatch signals between its economic minimum load and economic maximum load. When the unit is online and the unit’s incremental cost offer price is greater than the LMP, under the fundamentals of economic dispatch, PJM will generally dispatch the output of the unit down between the economic

maximum of the unit and economic minimum of the unit. Alternatively, when the unit is online and the unit's incremental cost offer price is less than the LMP, under the fundamentals of economic dispatch, PJM will generally dispatch the output of the unit up between the economic minimum of the unit and economic maximum of the unit. There are times in which the Company will "self-schedule" a generator's output with PJM under circumstances that are required for safety, testing, plant operational requirements, or reliability reasons. During these circumstances, the unit would be dispatched at a specific loading level and would not be at the discretion of PJM for economic dispatch. The Company also can and does "self-schedule" the unit as Must Run in order to commit the unit as most efficiently as possible, such as to ensure the unit to be committed from an offline state and to avoid uneconomic unit cycling.

Additionally, PJM co-optimizes Energy and Ancillary Services; thus, the Company's generators also offer ancillary service products such as regulation, synchronized and non-synchronized reserves or day-ahead scheduling reserves, in addition to energy. Additionally, the Company's generators can also supply black start and reactive reserve where applicable.

**PERSON RESPONSIBLE:** Brad Daniel  
John Swez

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**STAFF-DR-01-028**

**REQUEST:**

If the coal units are available, explain whether they are always bid into the energy market as “must run.” If not, then explain the circumstances under which the units are not bid in as such.

**RESPONSE:**

For the FAC period under review, when East Bend was available the unit was offered to PJM as Must Run. In circumstances when the market price of power drops below the unit offer and the generators’ market costs are expected to exceed the forecasted market revenues over an appropriate time period, the unit could be offered to PJM with an Economic status.

**PERSON RESPONSIBLE:** Brad Daniel

**Duke Energy Kentucky  
Case No. 2022-00267  
STAFF First Set Data Requests  
Date Received: September 13, 2022**

**CONFIDENTIAL STAFF-DR-01-029  
(As to Attachments only)**

**REQUEST:**

In an Excel spreadsheet format with all formulas, columns, and row unprotected and fully accessible, for the period under review and when the units are available to run,

- a. Provide the bid status (i.e. economic dispatch, must-run, etc.), by day, of Duke Kentucky's coal generating units into PJM's day ahead market. Explain the reason for each bid status.
- b. Provide the price per MWH, by day, of Duke Kentucky's generating units bid into PJM's day ahead market and the corresponding LMP indicating whether or not the unit cleared the market.
- c. In a separate spreadsheet Tab, provide a graphical representation of the information in part b. above.

**RESPONSE:**

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- a. Please see STAFF-DR-01-029(a) Confidential Attachment.
- b. Please see STAFF-DR-01-029(b) Confidential Attachment for the price per MWH, by day, of Duke Energy Kentucky's generating units bid into PJM's day ahead market with the following information: Day Ahead offer price pair quantities by unit, startup and no load costs by unit, the average daily LMP by unit, and the hourly DA award for each unit. For the period under review, when East Bend was available the unit was offered as Must Run, therefore the unit cleared the market each day

the unit was available. Woodsdale is offered as Economic unless there is an extenuating operational circumstance that would cause the unit to need to be offered as Must Run.

- c. Please see STAFF-DR-01-029(c) Confidential Attachment.

**PERSON RESPONSIBLE:** Brad Daniel



**CONFIDENTIAL PROPRIETARY TRADE  
SECRET**

**STAFF-DR-01-029(a)  
CONFIDENTIAL ATTACHMENT**

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**CONFIDENTIAL PROPRIETARY TRADE  
SECRET**

**STAFF-DR-01-029(b)  
CONFIDENTIAL ATTACHMENT**

**FILED UNDER SEAL**

**CONFIDENTIAL PROPRIETARY TRADE  
SECRET**

**STAFF-DR-01-029(c)  
CONFIDENTIAL ATTACHMENT**

**FILED UNDER SEAL**

**Duke Energy Kentucky**  
**Case No. 2022-00267**  
**STAFF First Set Data Requests**  
**Date Received: September 13, 2022**

**STAFF-DR-01-030**

**REQUEST:**

For the period under review, explain whether when the units are not on a planned, maintenance, or forced outage, PJM considers the units as being in available status. If not, explain the circumstances under which the units would not be considered in available status.

**RESPONSE:**

PJM has four offer statuses for offering energy into its energy market, which are: Economic, Emergency, Must Run, and Unavailable. Therefore, if a unit is not offered as Unavailable (Generator Planned Outage, a Generator Maintenance Outage, or a Generator Forced Outage) PJM considers the units as available dependent on the offer status of Economic, Emergency, or Must Run.

**PERSON RESPONSIBLE:** Brad Daniel