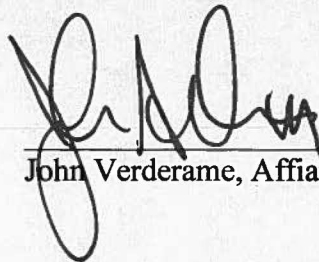


VERIFICATION

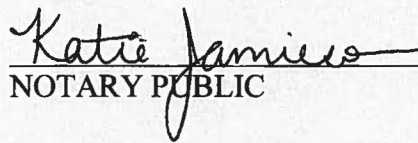
STATE OF NORTH CAROLINA)
)
) SS:
COUNTY OF MECKLENBURG)

The undersigned, John Verderame, Managing Director of Power Trading & Dispatch, 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.



John Verderame, Affiant

Subscribed and sworn to before me by John Verderame on this 15 day of August, 2016.



NOTARY PUBLIC

My Commission Expires: June 14, 2021

KATIE JAMIESON
Notary Public, North Carolina
Gaston County
My Commission Expires

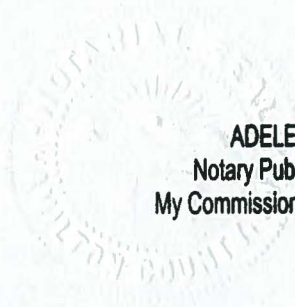
VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, Tim Abbott, being duly sworn, deposes and says that he is the Director of System Operations Services, and 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.

Timothy A. Abbott
Tim Abbott, Affiant

Subscribed and sworn to before me by Tim Abbott, on this 15TH day of AUGUST 2016.



ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires 01-05-2019

Adele M. Frisch
NOTARY PUBLIC

My Commission Expires: 1/5/2019

VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, Theodore H. Czupik, Jr., being duly sworn, deposes and says that he is the Rates & Regulatory Strategy Manager and 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.

Theodore H. Czupik Jr.
Theodore H. Czupik, Jr., Affiant

Subscribed and sworn to before me by Theodore H. Czupik, Jr., on this 15th day of August, 2016.

Adele M. Frisch
NOTARY PUBLIC

ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires 01-05-2019

My Commission Expires: 1/5/2019

KYPSC CASE NO. 2016-00234
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**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-001

REQUEST:

For the period from November 1, 2015, through April 30, 2016, list each vendor from whom coal was purchased and the quantities and the nature of each purchase (i.e., spot or contract). For the period under review in total, provide the percentage of purchases that were spot versus contract. For contract purchases, state whether the contract has been filed with the Commission. If no, explain why it has not been filed.

RESPONSE:

For the period under review from November 1, 2015, through April 30, 2016 please see STAFF-DR-01-001 Attachment.

PERSON RESPONSIBLE: Brett Phipps

Duke Energy Kentucky
Period: November 1, 2015 through April 30, 2016

<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>
Alliance Coal LLC	3,221	Contract	DEK 30892	2/10/2016	
Alpha Coal Sales	56,301	Spot	DEK 30579	4/22/2016	
Alpha Coal Sales	61,966	Contract	DEK 30810	2/10/2016	
Armstrong Coal Company	73,418	Contract	DEK 30019	8/28/2015	
Armstrong Coal Company	24,006	Contract	DEK 30883	2/10/2016	
Consol	87,287	Contract	DEK 30827	2/10/2016	
Foresight Coal Sales, LLC	9,509	Contract	DEK 30291	1/2/2013	
Peabody CoalTrade LLC	20,826	Contract	DEK 30581	1/28/2015	
River View	73,037	Contract	DEK 2013-2015	1/13/2015	
River View	59,578	Contract	DEK 30245	1/28/2015	
River View	48,745	Contract	DEK 28376 TR	1/28/2015	
River View	37,478	Contract	DEK 30243	1/13/2015	
River View	102,769	Contract	DEK 30243 TR	1/13/2015	
Noble America Corp	73,198	Spot	DEK 30584	4/22/2016	
Trafigura	47,575	Contract	DEK 29924	1/28/2015	

Total 778,915

83% Contract
 17% Spot

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-002

REQUEST:

For the period from November 1, 2015, through April 30, 2016, 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). For contract purchases, state whether the contract has been filed with the Commission. If no, explain why it has not been filed.

RESPONSE:

For the period from November 1, 2015, through April 30, 2016 the list of vendors from whom natural gas was purchased for generation and the quantities the nature of each purchase is listed in the table on the following pages. All purchases during the period were spot purchases of physical gas for which all master contracts allowing such purchases have been filed with the Commission as confirmed in STAFF-DR-01-025.

SPOT TRANSACTIONS FOR PERIOD						
Trade Date	Buy/Sell	Start Date	End Date	Price /Mmbtu	Counterpart	Total Quantity
11/03/2015	Buy	11/03/2015	11/03/2015	1.950	DTE Energy Trading E	14,841
11/03/2015	Buy	11/03/2015	11/03/2015	2.050	SEQUENT ENERGY	10,000
11/04/2015	Buy	11/05/2015	11/05/2015	1.940	DTE Energy Trading E	3,606
11/04/2015	Buy	11/04/2015	11/04/2015	2.150	SEQUENT ENERGY	10,000
11/05/2015	Buy	11/06/2015	11/06/2015	2.000	DTE Energy Trading E	15,000
11/09/2015	Buy	11/10/2015	11/10/2015	2.010	DTE Energy Trading E	1,500
11/10/2015	Buy	11/11/2015	11/11/2015	2.030	DTE Energy Trading E	1,500
11/11/2015	Buy	11/12/2015	11/12/2015	2.040	SEQUENT ENERGY	1,499
11/12/2015	Buy	11/13/2015	11/13/2015	1.930	DTE Energy Trading E	1,500
11/13/2015	Buy	11/14/2015	11/16/2015	1.930	DTE Energy Trading E	4,500
11/16/2015	Buy	11/17/2015	11/17/2015	2.000	DTE Energy Trading E	1,000
11/17/2015	Buy	11/18/2015	11/18/2015	1.910	DTE Energy Trading E	1,000
11/18/2015	Buy	11/19/2015	11/19/2015	2.000	DTE Energy Trading E	1,000
11/19/2015	Buy	11/20/2015	11/20/2015	2.070	SEQUENT ENERGY	1,000
11/20/2015	Buy	11/21/2015	11/23/2015	2.080	DTE Energy Trading E	6,000
11/23/2015	Buy	11/24/2015	11/24/2015	2.070	DTE Energy Trading E	2,000
11/24/2015	Buy	11/25/2015	11/25/2015	2.040	DTE Energy Trading E	2,000
11/25/2015	Buy	11/26/2015	11/30/2015	1.970	DTE Energy Trading E	7,500
TOTAL NOVEMBER						85,446
12/02/2015	Buy	12/03/2015	12/03/2015	2.140	SEQUENT ENERGY	1,000
12/02/2015	Buy	12/02/2015	12/02/2015	2.200	SEQUENT ENERGY	2,000
12/04/2015	Buy	12/05/2015	12/07/2015	1.990	DTE Energy Trading E	3,000
12/07/2015	Buy	12/08/2015	12/08/2015	1.950	DTE Energy Trading E	1,000
12/07/2015	Buy	12/07/2015	12/07/2015	2.200	SEQUENT ENERGY	10,000
12/07/2015	Buy	12/07/2015	12/07/2015	2.050	DTE Energy Trading E	8,500
12/08/2015	Buy	12/09/2015	12/09/2015	1.920	DTE Energy Trading E	1,500
12/09/2015	Buy	12/10/2015	12/10/2015	1.890	DTE Energy Trading E	1,000
12/10/2015	Buy	12/11/2015	12/11/2015	1.840	SEQUENT ENERGY	1,000
12/11/2015	Buy	12/12/2015	12/14/2015	1.680	SEQUENT ENERGY	1,500
12/14/2015	Buy	12/15/2015	12/15/2015	1.600	SEQUENT ENERGY	500
12/15/2015	Buy	12/16/2015	12/16/2015	1.540	DTE Energy Trading E	500
12/17/2015	Buy	12/18/2015	12/18/2015	1.690	SEQUENT ENERGY	2,000
12/16/2015	Buy	12/17/2015	12/17/2015	0.000	DTE Energy Trading E	-
12/18/2015	Buy	12/19/2015	12/21/2015	1.600	SEQUENT ENERGY	4,500
12/21/2015	Buy	12/22/2015	12/22/2015	1.600	SEQUENT ENERGY	1,500
12/22/2015	Buy	12/23/2015	12/23/2015	1.580	SEQUENT ENERGY	1,500
12/23/2015	Buy	12/24/2015	12/28/2015	1.480	SEQUENT ENERGY	5,000
12/28/2015	Buy	12/29/2015	12/29/2015	2.000	SEQUENT ENERGY	1,500
12/29/2015	Buy	12/30/2015	12/30/2015	2.240	SEQUENT ENERGY	1,000
12/30/2015	Buy	12/31/2015	12/31/2015	2.200	SEQUENT ENERGY	1,000
TOTAL DECEMBER						49,500

01/05/2016	Buy	01/05/2016	01/05/2016	2.325	DTE Energy Trading E	10,000
01/05/2016	Buy	01/05/2016	01/05/2016	2.300	SEQUENT ENERGY	1,327
01/11/2016	Buy	01/12/2016	01/12/2016	2.600	SEQUENT ENERGY	10,000
01/12/2016	Buy	01/13/2016	01/13/2016	2.370	DTE Energy Trading E	5,000
01/18/2016	Buy	01/18/2016	01/18/2016	2.700	SEQUENT ENERGY	10,014
01/19/2016	Buy	01/18/2016	01/18/2016	2.850	SEQUENT ENERGY	4,000
01/19/2016	Buy	01/19/2016	01/19/2016	2.600	SEQUENT ENERGY	10,000
01/19/2016	Buy	01/19/2016	01/19/2016	2.750	SEQUENT ENERGY	10,832
01/19/2016	Buy	01/19/2016	01/19/2016	4.000	SEQUENT ENERGY	10,000
01/19/2016	Buy	01/19/2016	01/19/2016	2.500	DTE Energy Trading E	15,000
01/19/2016	Buy	01/19/2016	01/19/2016	2.850	NJR Energy Servic G	13,629
01/19/2016	Buy	01/19/2016	01/19/2016	3.000	SEQUENT ENERGY	10,000
01/19/2016	Buy	01/19/2016	01/19/2016	3.150	SEQUENT ENERGY	5,000
TOTAL JANUARY						114,802
02/15/2016	Buy	02/15/2016	02/15/2016	2.400	TENASKA MARKETING VE	15,000
02/15/2016	Buy	02/15/2016	02/15/2016	2.450	DTE Energy Trading E	5,000
02/15/2016	Buy	02/15/2016	02/15/2016	3.500	SEQUENT ENERGY	10,000
TOTAL FEBRUARY						30,000
TOTAL MARCH						-
04/18/2016	Buy	04/18/2016	04/18/2016	2.210	NJR Energy Servic G	20,000
04/18/2016	Buy	04/18/2016	04/18/2016	2.350	SEQUENT ENERGY	25,000
04/18/2016	Buy	04/19/2016	04/19/2016	2.000	SEQUENT ENERGY	15,000
04/18/2016	Buy	04/19/2016	04/19/2016	1.900	DTE Energy Trading E	10,000
04/19/2016	Buy	04/19/2016	04/19/2016	2.050	DTE Energy Trading E	5,000
04/19/2016	Buy	04/19/2016	04/19/2016	2.370	NJR Energy Servic G	10,000
04/20/2016	Buy	04/21/2016	04/21/2016	1.890	SEQUENT ENERGY	10,000
TOTAL APRIL						95,000
TOTAL PURCHASES						374,748

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-003

REQUEST:

State whether Duke Kentucky engages in hedging activities for its coal or natural gas purchases used for generation. If yes, describe the hedging activities in detail.

RESPONSE:

Coal:

Duke Energy Kentucky does 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:

To date, Duke Energy Kentucky has not engaged in any forward natural gas price hedging activities. Duke Energy Kentucky engages in the physical procurement of physical natural gas to support its gas generation.

PERSON RESPONSIBLE: Brett Phipps

Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016

STAFF-DR-01-004

REQUEST:

For each generating station or unit for which a separate coal pile is maintained, state, for the period from November 1, 2015, through April 30, 2016, the actual amount of coal burned in tons, the actual amount of coal deliveries in tons, the total kWh generated, and the actual capacity factor at which the plant operated.

RESPONSE:

Plant	Coal Burn (Tons)	Coal Receipts (Tons)	Net MWH	Capacity Factor (Net MWH) / period hrs x MW rating)
East Bend	745,316	778,915	1,580,528	86.9%

PERSON RESPONSIBLE: Brett Phipps/Theodore H. Czupik, Jr.

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-005

REQUEST:

List all firm power commitments for Duke Kentucky from November 1, 2015, through April 30, 2016, for (a) purchases and (b) sales. This list shall identify the electric utility, the amount of commitment in MW, and the purpose of the commitment (i.e., peaking, emergency).

RESPONSE:

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

PERSON RESPONSIBLE: John Swez

Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016

STAFF-DR-01-006

REQUEST:

Provide a monthly billing summary of sales to all electric utilities for the period November 1, 2015, through April 30, 2016.

RESPONSE:

DUKE ENERGY KENTUCKY
POWER TRANSACTION SCHEDULE

Supplier/Buyer	Transaction Type	kWh	Charges (\$)			
			Demand	Fuel	Other	Total
Month Ended November 30, 2015						
PJM Interconnection, LLC	Econ Sales	74,943,080	0	1,658,263	348,768	2,007,031
	Total Sales	<u>74,943,080</u>	<u>0</u>	<u>1,658,263</u>	<u>348,768</u>	<u>2,007,031</u>
Month Ended December 31, 2015						
PJM Interconnection, LLC	Econ Sales	44,957,820		1,346,507	(369,249)	977,258
	Total Sales	<u>44,957,820</u>	<u>0</u>	<u>1,346,507</u>	<u>(369,249)</u>	<u>977,258</u>
Month Ended January 31, 2016						
PJM Interconnection, LLC	Econ Sales	17,734,230		574,373	(112,195)	462,178
	Total Sales	<u>17,734,230</u>	<u>0</u>	<u>574,373</u>	<u>(112,195)</u>	<u>462,178</u>
Month Ended February 29, 2016						
PJM Interconnection, LLC	Econ Sales	8,683,040		159,158	78,102	237,260
	Total Sales	<u>8,683,040</u>	<u>0</u>	<u>159,158</u>	<u>78,102</u>	<u>237,260</u>
Month Ended March 31, 2016						
PJM Interconnection, LLC	Econ Sales	12,226,790		238,061	24,820	262,881
	Total Sales	<u>12,226,790</u>	<u>0</u>	<u>238,061</u>	<u>24,820</u>	<u>262,881</u>
Month Ended April 30, 2016						
PJM Interconnection, LLC	Econ Sales	0		(409)	409	0

Total Sales

<u>0</u>	<u>0</u>	<u>(409)</u>	<u>409</u>	<u>0</u>
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Legend

Econ Sales - Economy Sales

PERSON RESPONSIBLE:

Theodore H. Czupik, Jr.

Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016

STAFF-DR-01-007

REQUEST:

List Duke Kentucky's scheduled, actual, and forced outages from November 1, 2015, through April 30, 2016.

RESPONSE:

Please see Staff-DR-01-007 Attachment.

PERSON RESPONSIBLE: John Swez

UnitName	EventType	Month	Scheduled Hours	Forced Hours	Actual Hours	EventStart	EventEnd	EventDescription
East Bend 2	MO	Nov-15	34.42		34.42	10/25/15 2:10	11/2/15 9:25	Reheat tube leak
East Bend 2	U1	Nov-15		11.27		11/4/15 8:15	11/4/15 19:31	Unit trip when isolating reserve aux transformer
East Bend 2	MO	Dec-15	150.10		150.10	12/5/15 0:05	12/11/15 6:11	Primary Air Heater Cleaning
East Bend 2	PO	Mar-16	914.73		914.73	3/23/16 21:15	4/30/16 23:59	Planned spring outage-Reheat tube replacement installation critical pat
East Bend 2	PE	Apr-16	0.02		0.02	4/30/16 23:59	5/7/16 5:51	Second Superheat header crack repairs
Woodsdale CT1	SF	Jan-16		0.25		1/19/16 6:17	1/19/16 6:32	Brush liftoff didn't open
Woodsdale CT1	PO	Apr-16	18.00		18.00	4/30/16 6:00	5/13/16 17:04	Boroscope and Fire Protection Upgrade
Woodsdale CT3	U1	Feb-16		10.00		2/1/16 6:00	2/1/16 16:00	CEMS communication issue with ELC.
Woodsdale CT6	SF	Jan-16		0.27		1/19/16 6:32	1/19/16 6:48	No flame
Woodsdale CT6	SF	Apr-16		2.50		4/5/16 6:55	4/5/16 9:25	SFC Failure

STAFF-DR-01-008

REQUEST:

List all existing fuel contracts categorized as long-term (i.e., one year or more in length).

Provide the following information for each contract:

- a. Supplier's name and address;
- b. Name and location of production facility;
- c. Date when contract was executed;
- d. Duration of contract;
- e. Date(s) of each contract revision, modification, or amendment;
- f. Annual tonnage requirements;
- g. Actual annual tonnage received since the contract's inception;
- h. Percentage of annual requirements received during the contract's term;
- i. Base price in dollars per ton;
- j. Total amount of price escalations to date in dollars per ton; and
- k. Current price paid for coal under the contact in dollars per ton (i + j)

RESPONSE:

- a. **Alliance Tunnel Ridge (30892)**
1717 South Boulder Ave., Suite 400
Tulsa, OK 74119
- b. Tunnel Ridge, WV
- c. January 8, 2016

- d. January 1, 2016 through December 31, 2017
- e. N/A
- f. 2016 = 100,000; 2017 = 400,000
- g. 2016 YTD = 3,221
- h. 2016 YTD = 9.7%
- i. 2016 = \$40.00; 2017 = \$41.50
- j. None
- k. 2016 = \$40.00; 2017 = \$41.50

- a. **Alpha Coal Sales Co., LLC (30810)**
One Alpha Place
Bristol, VA 24202
- b. Cumberland, PA
- c. January 8, 216
- d. January 1, 2016 through December 31, 2017
- e. N/A
- f. 2016 = 250,000; 2017=350,000
- g. 2016 YTD = 94,753
- h. 2016 YTD = 74.4%
- i. 2016 = \$40.50; 2017= \$42.50
- j. None
- k. 2016 = \$40.50; 2017=\$42.50

- a. **Armstrong Energy Inc. (30019)**
7733 Forsyth Boulevard, Suite 1625
St. Louis, MO 63105
- b. Centertown, KY
- c. October 27, 2014
- d. January 1, 2015 through January 31, 2016
- e. December 18, 2015 (Extended through Jan 2016)
- f. 2015 = 230,000; 2016=20,000
- g. 2015 = 230,202; 2016=20,862
- h. 2015 =100 % ;2016=100%
- i. 2015 = \$45.00; 2016\$45.00
- j. None
- k. 2015 = \$45.00; 2016 \$45.00

- a. **Armstrong Energy Inc. (30883)**
7733 Forsyth Boulevard, Suite 1625
St. Louis, MO 63105
- b. Centertown, KY
- c. December 28, 2015
- d. January 1, 2016 through December 31, 2017
- e. N/A
- f. 2016 = 200,000; 2017=300,000
- g. 2016 YTD = 27,170
- h. 2016 YTD = 38%
- ii. 2016 = \$38.00; 2017=\$40.00

- j. None
- k. 2016 = \$38.00;2017=\$40.00

- a. **Consol Pennsylvania Coal CO., LLC (30827)**
1000 Consol Energy Drive
Canonsburg, PA 15317
- b. Bailey, PA
- c. December 11, 2015
- d. January 1, 2016 through December 31, 2016

- e. N/A
- f. 2016 = 400,000
- g. 2016 YTD = 117,294
- h. 2016 YTD = 88.0%
- iii. 2016 = \$41.50
- j. None
- k. 2016 = \$41.50

- a. **Foresight Coal Sales, LLC (30291)**
46226 National Rd
St. Clairsville, OH 43950
- b. Deer Run Mine, IL
- c. June 4, 2015
- d. January 1, 2016 through December 31, 2016
- e. N/A
- f. 2016 = 150,000

- g. 2016 YTD = 9,509
- h. 2016 YTD = 19%
- iv. 2016 = \$40.50
- j. None
- k. 2016 = \$40.50

a. **Alliance River View (30245)**
1717 South Boulder Ave., Suite 400
Tulsa, OK 74119

- b. Sebree, KY
- c. January 1, 2015
- d. January 1, 2016 through December 31, 2016
- e. N/A
- f. 2016 = 600,000
- g. 2016 YTD = 69,031
- h. 2016 YTD = 34.5%
- i. 2016 = \$47.50
- j. None
- k. 2016 = \$47.50

b. **Alliance River View (28376)(DEK 2013-2015)**
1717 South Boulder Ave., Suite 400
Tulsa, OK 74119

- b. River View, KY
- c. February 14, 2013

- d. January 1, 2013 through January 31, 2016
- e. Amendment 1 – January 26, 2015
- f. 2013 = 350,000; 2014 = 585,000; 2015 = 440,000; 2016 = 25,000
- g. 2013 = 349,392; 2014 = 584,666; 2015 = 438,547; 2016 = 27,024
- h. 2013 = 100%; 2014 = 100%; 2015 = 100%; 2016 = 100%
- i. 2013 = \$43.25; 2014 = \$46.50; 2015 = \$48.00; 2016 = \$48.00
- j. None
- k. 2013 = \$43.25; 2014 = \$46.50; 2015 = \$48.00; 2016 = \$48.00

- a. **Alliance River View (28376TR)**
1717 South Boulder Ave., Suite 400
Tulsa, OK 74119
- b. Tunnel Ridge, KY
- c. February 14, 2013
- d. January 1, 2015 through January 31, 2016
- e. Amendment 1 – January 26, 2015
- f. 2015 = 200,000; 2016 = 0
- g. 2015 = 200,785; 2016 = 0
- h. 2015 = 100%; 2016 = N/A
- i. 2015 = \$51.00; 2016 = \$51.00
- j. None
- k. 2015 = \$51.00; 2016 = \$51.00

- a. **Alliance River View (30243)(30243TR)**
1717 South Boulder Ave., Suite 400
Tulsa, OK 74119
- b. Sebree, KY Riverview **30243** / Tunnel Ridge, WV **30243TR**
- c. July 2, 2014 Riverview
- d. January 1, 2015 through May 31, 2016
- e. Amendment 1-dated November1,2015, Amendment 2 dated-December
18,2015, Amendment 3-dated March 30,2016
- f. 2015 = 438,047; 2016 = 61,953
- g. 2015= 438,047; 2016 = 62,879
- h. 2015 = 100%; 2016 = 100%
- i. 2015 = \$48.00; 2016 = \$48.00
- j. None
- k. 2015 = \$48.00; 2016 = \$48.00

- a. **Trafigura (29924)**
One Stamford Plaza
263 Tresser Boulevard 16th Floor
Stamford, CT 06901
- b. River View, KY
- c. September 12, 2014
- d. January 1, 2015 through December 31, 2015
- e. N/A
- f. 2015 = 200,000
- g. 2015 = 199,425
- h. 2015 = 100%

v. 2015 = \$45.65

j. None

k 2015 = \$45.65

Natural Gas

To date, Duke Energy Kentucky does not have any fuel contracts categorized as long-term for natural gas.

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-009

REQUEST:

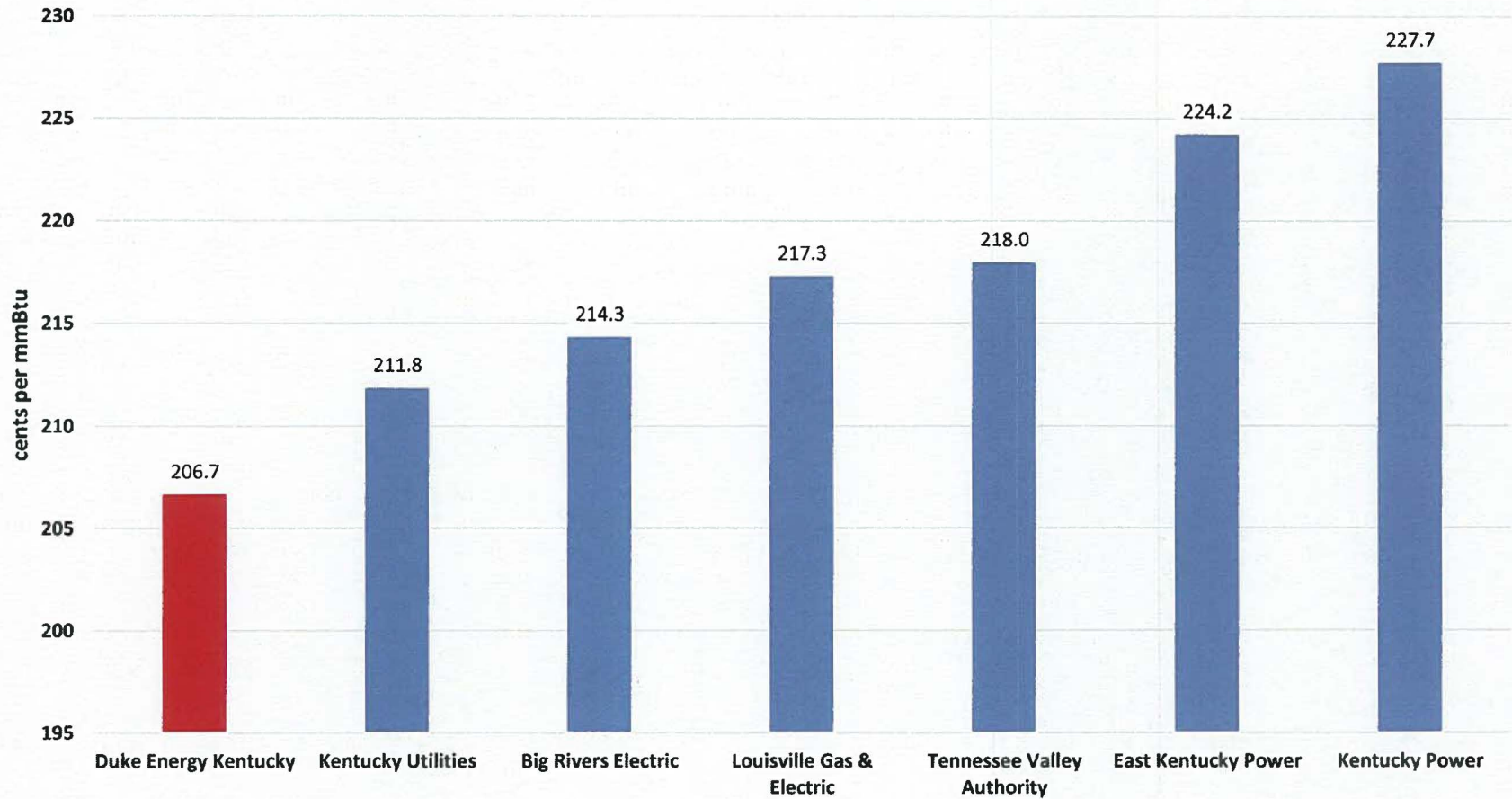
- a. State whether Duke Kentucky regularly compares the price of its coal purchases to those paid by other electric utilities.
- b. If yes, state:
 - (1) How Duke Kentucky's prices compare with those of other utilities. If the comparison includes months outside of the review period, a comparison limited to the review period should be provided separately. Provide a copy of the source documents and calculations used to support the amounts used in the comparison and include all prices used in the comparison in cents per MMBtu.
 - (2) The utilities that are included in this comparison and their locations.

RESPONSE:

- a. Yes Duke Energy Kentucky regularly compares the price of its coal purchases to those paid by other major Kentucky electric utilities for their generating stations located in Kentucky. Please see STAFF-DR-01-009(a) Attachment.
- b. Please see STAFF-DR-01-009(b) Attachment, derived from Energy Ventures Analysis (EVA) Interpretation of EIA Form 923 data.

PERSON RESPONSIBLE: Brett Phipps

Delivered Coal Cost to Kentucky Utilities Nov 15 - Apr 16



Source: EVA Interpretation of EIA Form 923 data

YEAR	MONTH	Plant Id	Plant Name	Plant Status	Purchase Type	Contract Expiration Date	ENERGY SOURCE	FUEL QTY UP	Commodity	Supplier	QUANTITY	Operator Name	Plant	Points	BT	Total	BTU	%	ASH	SIZ	BTU/MT	Station	MWh	Surplus	ASH	Dollars																																																	
2018	1	850001	Terminal	RY	S		BT	Coal	TERMINAL	TERMINAL	11,750.0	TERMINAL	850001	850001	17	12,287	1.07	8.8	1.78	236.8	508.82	43,008	2	15	102																																																		
2018	2	330001	Terminal	RY	S		BT	Coal	TERMINAL	TERMINAL	11,750.0	TERMINAL	330001	330001	11	12,287	1.07	8.8	1.78	236.8	508.82	43,008	15	11	76																																																		
2018	2	330002	Terminal	RY	S		BT	Coal	TERMINAL	TERMINAL	11,750.0	TERMINAL	330002	330002	11	12,287	1.07	8.8	1.78	236.8	508.82	43,008	15	11	76																																																		
2018	11	470001	Coalant	AL	S		BT	Coal	TERMINAL	TERMINAL	15,010.0	TERMINAL	470001	470001	15	12,888	1.25	8.4	1.97	227.3	558.26	385,183	14	184	830																																																		
2018	12	470002	Coalant	AL	S		BT	Coal	TERMINAL	TERMINAL	11,868.0	TERMINAL	470002	470002	11	12,883	1.05	10.2	1.74	228.8	505.15	281,430	12	119	843																																																		
<table border="1"> <thead> <tr> <th>Commodity</th> <th>Quantity</th> <th>Station</th> <th>MWh</th> <th>Surplus</th> <th>ASH</th> <th>Dollars</th> </tr> </thead> <tbody> <tr> <td>TERMINAL</td> <td>33,008</td> <td>850001</td> <td>11,750.0</td> <td>11,750.0</td> <td>11,750.0</td> <td>11,750.0</td> </tr> <tr> <td>TERMINAL</td> <td>22,258</td> <td>330001</td> <td>11,750.0</td> <td>11,750.0</td> <td>11,750.0</td> <td>11,750.0</td> </tr> <tr> <td>TERMINAL</td> <td>22,258</td> <td>330002</td> <td>11,750.0</td> <td>11,750.0</td> <td>11,750.0</td> <td>11,750.0</td> </tr> <tr> <td>TERMINAL</td> <td>15,010</td> <td>470001</td> <td>15,010.0</td> <td>15,010.0</td> <td>15,010.0</td> <td>15,010.0</td> </tr> <tr> <td>TERMINAL</td> <td>11,868</td> <td>470002</td> <td>11,868.0</td> <td>11,868.0</td> <td>11,868.0</td> <td>11,868.0</td> </tr> <tr> <td>TOTAL</td> <td>82,402</td> <td></td> <td>62,118.0</td> <td>62,118.0</td> <td>62,118.0</td> <td>62,118.0</td> </tr> </tbody> </table>																											Commodity	Quantity	Station	MWh	Surplus	ASH	Dollars	TERMINAL	33,008	850001	11,750.0	11,750.0	11,750.0	11,750.0	TERMINAL	22,258	330001	11,750.0	11,750.0	11,750.0	11,750.0	TERMINAL	22,258	330002	11,750.0	11,750.0	11,750.0	11,750.0	TERMINAL	15,010	470001	15,010.0	15,010.0	15,010.0	15,010.0	TERMINAL	11,868	470002	11,868.0	11,868.0	11,868.0	11,868.0	TOTAL	82,402		62,118.0	62,118.0	62,118.0	62,118.0
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**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-010

REQUEST:

State the percentage of Duke Kentucky's coal, as of the date of this Order, that is delivered by:

- a. Rail;
- b. Truck; or
- c. Barge

RESPONSE:

For this review period of November 1, 2015 – April 30, 2016, and to the date of the Commission's Order, below are the percentages based on delivery methods to Duke Energy Kentucky:

	Rail % (a)	Truck % (b)	Barge % (c)
East Bend	0	0	100

PERSON RESPONSIBLE: Brett Phipps

STAFF-DR-01-011

REQUEST:

- a. State Duke Kentucky's coal inventory level in tons and in number of days' supply as of April 30, 2016. Provide this information by generating station and in the aggregate.
- b. Describe the criteria used to determine number of days' supply.
- c. Compare Duke Kentucky's coal inventory as of April 30, 2016, to its inventory target for that date for each plant and for total inventory.
- d. If actual coal inventory exceeds inventory target by ten days' supply, state the reasons for excessive inventory.
- e. (1) State whether Duke Kentucky expects any significant changes in its current coal inventory target within the next 12 months.
(2) If yes, state the expected change and the reasons for this change.

RESPONSE:

Duke Energy Kentucky's total aggregate inventory across the system as of April 30, 2016 was 287,348 tons, or 44 days.

EAST BEND:

- a. As of April 30, 2016, total station inventory at East Bend was 287,348 tons, or 44 days.

- b. The number of day's supply is computed by dividing an ending coal inventory figure stated in tons by the Full Load Burn figure of 6,500 tons per day.
- c. The inventory target is an annual average of 40 days compared to 44 days of inventory on April 30, 2016.
- d. N/A
- e. 1. No
2. N/A

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-012

REQUEST:

- a. State whether Duke Kentucky has audited any of its coal contracts during the period from November 1, 2015, through April 30, 2016
- b. If yes, for each audited contract:
 - (1) Identify the contract;
 - (2) Identify the auditor;
 - (3) State the results of the audit; and
 - (4) Describe the actions that Duke Kentucky took as a result of the audit.

RESPONSE:

- a. Duke Energy Kentucky has not audited any of its coal contracts during the period from November 1, 2015, through April 30, 2016.
- b. N/A

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-013

REQUEST:

- a. State whether Duke Kentucky has received any customer complaints regarding its FAC during the period from November 1, 2015, through April 30, 2016.
- b. If yes, for each complaint, state:
 - (1) The nature of the complaint; and
 - (2) Duke Kentucky's response.

RESPONSE:

Duke Energy Kentucky has not received any customer complaints regarding its FAC during the period from November 1, 2015, through April 30, 2016.

PERSON RESPONSIBLE: Theodore H. Czupik, Jr.

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-014

REQUEST:

- a. State whether Duke Kentucky is currently involved in any litigation with its current or former coal suppliers.
- b. If yes, for each litigation:
 - (1) Identify the coal supplier;
 - (2) Identify the coal 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.
- c. State the current status of all litigation with coal suppliers.

RESPONSE:

For this review period of November 1, 2015 – April 30, 2016, Duke Energy Kentucky is not currently involved in any litigation with its current or former coal suppliers.

PERSON RESPONSIBLE: Brett Phipps

STAFF-DR-01-015

REQUEST:

- a. During the period from November 1, 2015, through April 30, 2016, have there been any changes to Duke Kentucky's written policies and procedures regarding its fuel procurement:
- b. 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.
- c. If no, provide the date Duke Kentucky's current fuel procurement policies and procedures were last changed, when they were last provided to the Commission, and identify the proceeding in which they were provided.

RESPONSE:

- a. Duke Energy Kentucky's fuel procurement policies or procedures have not had any changes from what was provided in Case No. 2016-00005.
- b. N/A
- c. Duke Energy Kentucky's fuel procurement policies or procedures were updated and provided in Case No. 2016-00005, dated February 5, 2016.

PERSON RESPONSIBLE: Brett Phipps

REQUEST:

- a. 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 from November 1, 2015, through April 30, 2016.
- b. If yes, for each violation:
 - (1) Describe the violation;
 - (2) Describe the action(s) that Duke Kentucky took upon discovering the violation; and
 - (3) Identify the person(s) who committed the violation.

RESPONSE:

- a. Duke Energy Kentucky is not aware of any violations of its policies and procedures.
- b. N/A

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-017

REQUEST:

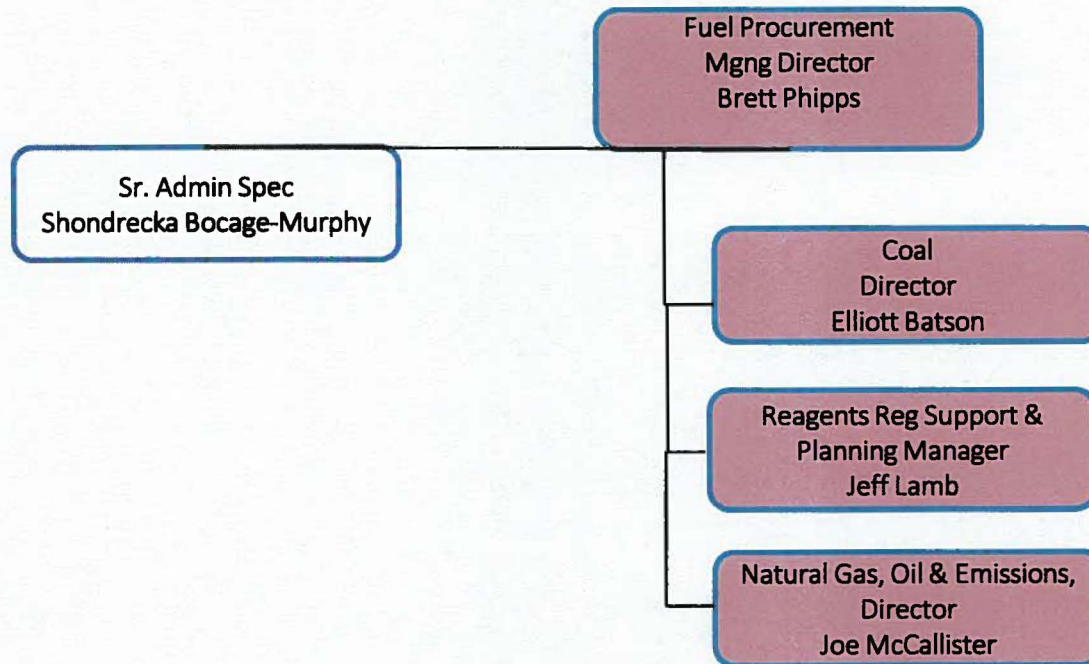
Identify and explain the reasons for all changes in the organizational structure and personnel of the departments or divisions that are responsible for Duke Kentucky's fuel procurement activities that occurred during the period from November 1, 2015, through April 30, 2016.

RESPONSE:

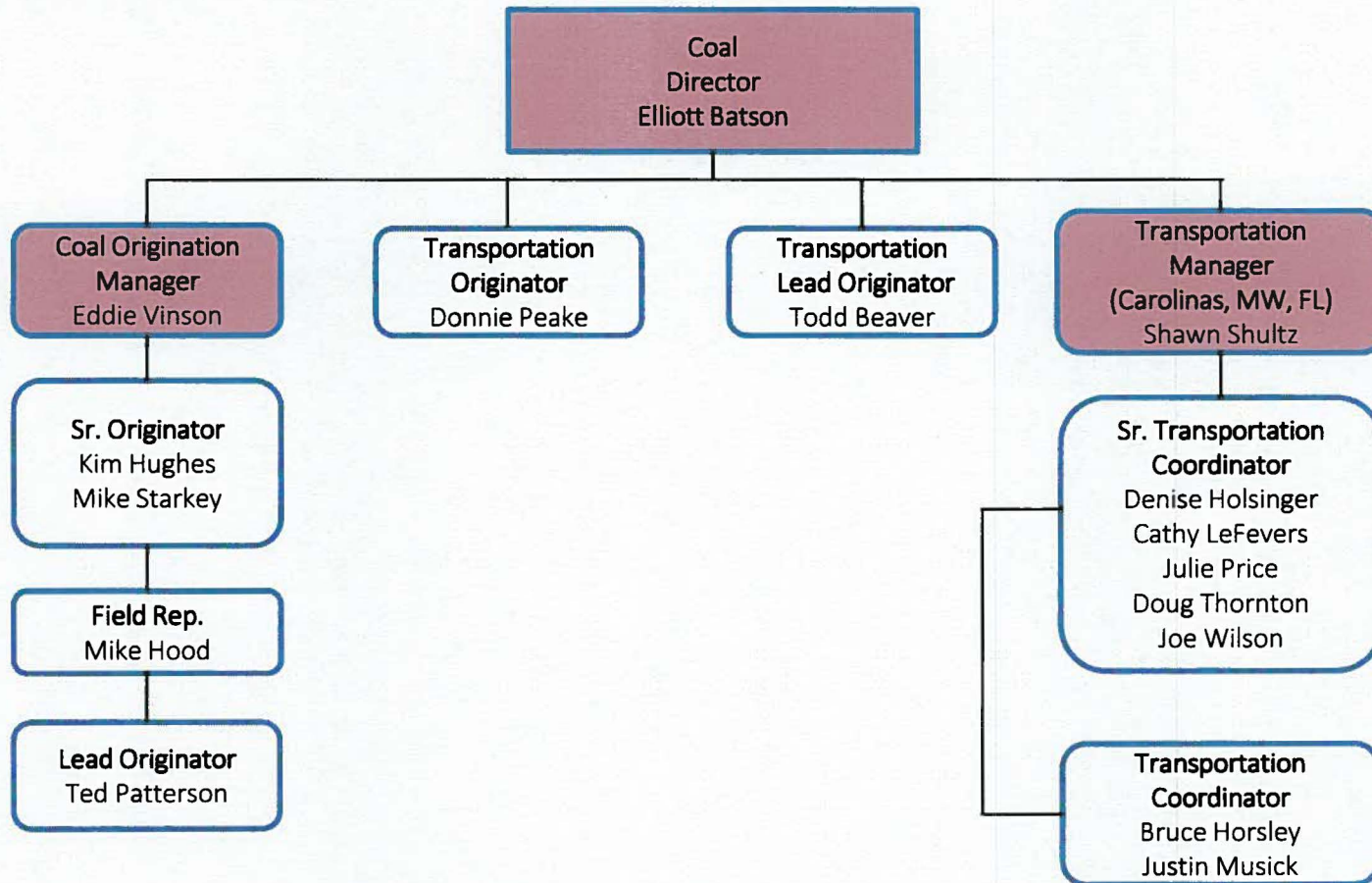
There were no changes in the organizational structure and personnel of the departments or divisions that are responsible for Duke Kentucky's fuel procurement activities that occurred during the period from November 1, 2015, through April 30, 2016. Please see STAFF-DR-01-017 Attachment.

PERSON RESPONSIBLE: Brett Phipps

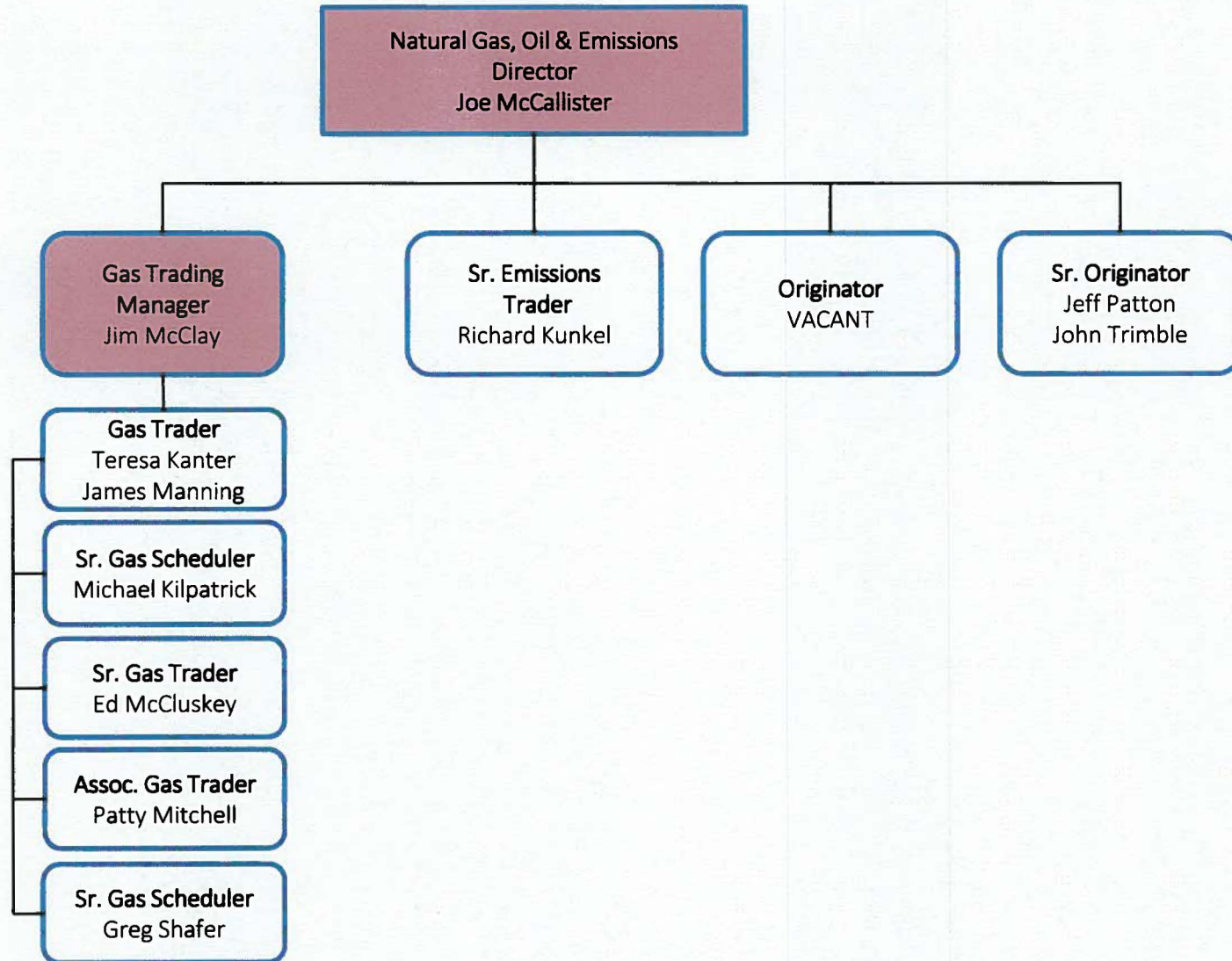
Duke Energy Fuels & Systems Optimization



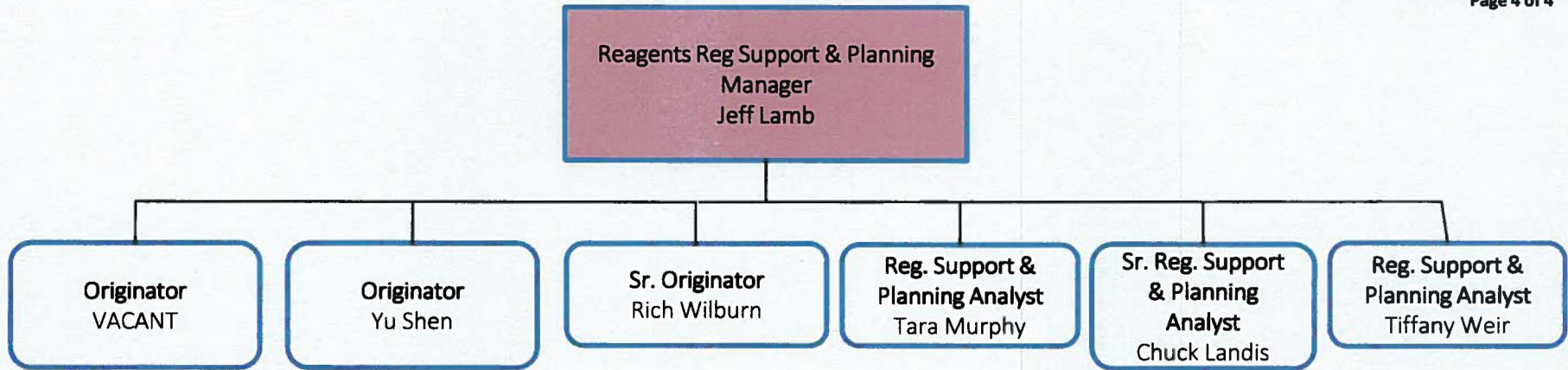
Fuel Procurement



Fuel Procurement



Fuel Procurement



Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016

STAFF-DR-01-018

REQUEST:

- a. Identify all changes that Duke Kentucky has made during the period under review to its maintenance and operation practices that also affect fuel usage at Duke Kentucky's generation facilities.
- b. Describe the impact of these changes on Duke Kentucky's fuel usage.

RESPONSE:

- a. No changes were made during this period.
- b. N/A

PERSON RESPONSIBLE: John Swez

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-019

REQUEST:

List each written coal-supply solicitation issued during the period from November 1, 2015, through, April 30, 2016.

- 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 time 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 send out a written coal supply solicitation during the period from November 1, 2015, through, April 30, 2016.
- b. N/A

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-020

REQUEST:

List each oral coal-supply solicitation issued during the period from November 1, 2015, through April 30, 2016.

- 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 time 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 the period from November 1, 2015, through, April 30, 2016.
- b. N/A

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-021

REQUEST:

- a. List all intersystem sales during the period under review in which Duke Kentucky used a third party's transmission system.
- b. For each sale listed above:
 - (1) Describe the effect on the FAC calculation of line losses related to intersystem sales when using a third party's transmission system, and
 - (2) State the line-loss factor used for each transaction and describe how that line-loss factor was determined.

RESPONSE:

- a. Duke Energy Kentucky sells 100% of its generation to PJM Interconnection, L.L.C. These sales are made at the generating station; consequently, no third party transmission was used.
- b. Not Applicable

PERSON RESPONSIBLE: Theodore H. Czupik, Jr./John Swez

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-022

REQUEST:

- a. Describe the effect on the FAC calculation of line losses related to intersystem sales when not using a third party's transmission system.
- b. Describe each change that Duke Kentucky made to its methodology for calculation intersystem sales line losses during the period under review.

RESPONSE:

- a. Not applicable. See response to Staff-DR-01-021.
- b. Not applicable. See response to Staff-DR-01-021.

PERSON RESPONSIBLE: Theodore H. Czupik, Jr./John Swez

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-023

REQUEST:

State whether, during the period under review, Duke Kentucky has solicited bids for coal with the restriction that it was not mined through strip mining or mountaintop removal. If yes, explain the reasons for the restriction on the solicitation, the quantity in tons and price per ton of the coal purchased as a result of this solicitation, and the difference between the price of this coal and the price it could have obtained for the coal if the solicitation had not been restricted.

RESPONSE:

For this review period of November 1, 2015 – April 30, 2015, Duke Energy Kentucky did not solicit bids with a restriction to exclude bids mined through strip mining or mountain top removal.

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-024

REQUEST:

Provide a detailed discussion of any specific generation efficiency improvements Duke Kentucky has undertaken during the period under review.

RESPONSE:

Duke Energy Kentucky utilizes good utility practice in operating its generation units. As such, there are numerous activities associated with operating a generating unit that affect the units' efficiency. However, no major specific generation efficiency improvements were undertaken during this period.

PERSON RESPONSIBLE: John Swez

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-025

REQUEST:

State whether all contracts related to commodity and/or 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:

Natural Gas

All master agreements for physical suppliers and any master long-term transportation agreements have been filed with the Commission.

Coal

All coal commodity and transportation contracts have been filed with the Commission.

PERSON RESPONSIBLE: Brett Phipps

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-026

REQUEST:

For the expense month of October 2015, provide the amount of power purchases in excess of Duke Kentucky's highest-cost generating unit available to be dispatched to serve native load during the reporting expense month that was included in Duke Kentucky's FAC calculation.

RESPONSE:

There were no power purchases in excess of Duke Energy Kentucky's highest-cost generating unit available to be dispatched to serve native load during the expense month of October 2015. Please note that the expense month of October 2015 falls within the review period of Duke Energy Kentucky's prior FAC proceeding (Case No. 2016-0005).

PERSON RESPONSIBLE: Scott Burnside

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-027

REQUEST:

For the expense month of October 2015, provide Duke Kentucky's calculations and supporting data for determining the amount of power purchased in excess of its highest-cost unit available to be dispatched during the month.

RESPONSE:

The expense month of October 2015 falls within the review period of Duke Energy Kentucky's prior FAC proceeding (Case No. 2016-0005). Duke Energy Kentucky has thus already provided this information to the Commission in its response to STAFF-DR-002(d) Confidential Exhibit from that proceeding.

PERSON RESPONSIBLE: Scott Burnside

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-028

REQUEST:

Refer to 807 KAR 5:056, Sections 1(3)(a), 1(3)(b), and 1(4), relating to forced outages. State whether Duke Kentucky interprets these sections of the regulation to mean that, during a forced outage (as defined by the regulation), the amount recoverable through the FAC is the lesser of the assigned cost of power (the cost of fuel that would have been used in plants suffering a forced outage) and the substitute cost of power. If yes, explain in detail how Duke Kentucky calculates the assigned cost of fuel during a forced outage. If no, explain in detail how Duke Kentucky interprets the regulation related to forced outages and how it calculates the assigned cost of fuel during a forced outage.

RESPONSE:

(a) Yes.

(b) Duke Energy Kentucky defines the cost of fuel that would have been burned in plants suffering a forced outage as the prior month \$/MWh cost of consumed fuel at the weighted-average cost of inventory. In cases where such a unit runs for only a short period or not at all the prior month then the next prior month \$/MWh cost of consumed fuel at weighted-average cost of inventory would be used. Calculations are done hourly comparing the fuel cost of the unit suffering a forced outage to the quantity and cost of replacement power whether from a more expensive Company-

owned generator or from purchased power. The hourly calculated differences between the cost of replacement power and the fuel cost of the unit suffering a forced outage are summed over the month. If the monthly total of the cost of replacement power is greater than the total of the fuel cost of the unit suffering the forced outage then the difference will be removed from the amount of fuel cost requested to be recovered in the FAC. For example, if East Bend suffers a forced outage requiring 15,000 MWh of replacement power and the unit had a prior month average fuel cost of \$22/MWh then the total fuel cost of East Bend would have been 15,000 MWh * \$22/MWh = \$330,000. Further assume that 100% of the East Bend replacement power was PJM purchased power at varying hourly LMPs and the total cost of such PJM purchased power was \$350,000. In this example, Duke Energy Kentucky would assume that \$330,000 of the replacement power was allowed and \$20,000 was disallowed ($\$350,000 - \$330,000 = \$20,000$) from recovery via the FAC pursuant to 807 KAR 5:056.

PERSON RESPONSIBLE: Scott Burnside

**Duke Energy Kentucky
Case No. 2016-00234
Staff First Set Data Requests
Date Received: August 12, 2016**

STAFF-DR-01-029

REQUEST:

State whether Duke Kentucky has made, or plants to make, any capital investments in order to comply with PJM Interconnection, Inc. ("PJM") capacity performance standards. If yes, provide details. If no, explain why no capital investments are needed in order for Duke Kentucky to comply with the capacity performance standards.

RESPONSE:

Duke Energy Kentucky has seven generating units, East Bend 2 and Woodsdale 1-6, that will be subject to the PJM Capacity Performance standards starting June 1, 2019. Capacity Performance focuses on two primary parameters, fuel availability, and mechanical reliability. From a fuel availability perspective, East Bend 2, by nature of being a coal fired unit with onsite fuel, is compliant with Capacity Performance requirements. Woodsdale Station, with no firm fuel supply agreement and limited alternate fuel supply, does not currently meet the Capacity Performance fuel availability criteria. Duke Kentucky is currently evaluating fuel alternatives for Woodsdale Station, including; firm natural gas transportation agreements, redundant pipeline connections, and additional onsite dual fuel capabilities. Duke Kentucky is also evaluating investments in both stations that will enhance mechanical reliability.

While final investment recommendations have not yet been finalized, it is likely that capital investments will be required in order for the Duke Kentucky units to meet the

capacity performance criteria for inclusion in the Duke Kentucky Fixed Resource Requirement plans for 2019 and beyond.

PERSON RESPONSIBLE: John Verderame/John Swez

REQUEST:

Refer to the FAC filing and supplemental/back-up file submitted for the expense month of April 2016. The filings show that the East Bend unit did not operate during the month due to a planned outage. State whether Duke Kentucky entered into a fixed-price financial swap contract to lock in a power price for the outage as included in its back-up power supply plan.¹ If no, explain why it did not enter into such a contract. If yes, provide the following:

- a. Details of the terms of the contract.
- b. The amount of power purchased and the amount paid for the purchases pursuant to the contract.
- c. The amount that Duke Kentucky estimates it would have paid if it had not entered into the contract.
- d. The financial benefit or cost that resulted from entering into, and purchasing power under, the contract.

RESPONSE:

Yes. Consistent with its back-up power supply plan, Duke Energy Kentucky entered into multiple fixed-price financial futures contracts to lock in the power price for the East Bend outage.

¹ Case No. 2015-00075. *Back-Up Power Supply Plan of Duke Energy Kentucky, Inc.* (Ky. PSC June 15, 2015).

- a. Duke Energy Kentucky entered in to the first forward financial hedges for the Spring 2016 outage in October 2015. The Company utilized both forward hedges and spot month hedges. These hedges were structured such that the Company paid a fixed price in exchange of PJM hourly LMP during the term of the contracts. These financial contracts do not entail physical power delivery, and instead settle in a cash payment at the end of the particular term. If the PJM hourly LMP realizes higher than the fixed price the Company paid, the Company would realize a gain of the difference between the fixed price and the hourly LMP. If the opposite happens, and the PJM Hourly LMP realizes lower than the fixed price, the Company would realize a loss equivalent to the difference. See attachment “DEK April 2016 Native Hedges” for hedge transaction details.
- b. The total financial Megawatt Hour (MWH) basis purchased pursuant to the contracts was 176,000 MWH. The notional amount paid for the purchase was \$5,080,600.
- c. The hedges were financial contracts used to mitigate spot month physical price volatility of power purchased for load and did not provide physical power. Duke Energy Kentucky purchases all of its load requirement energy from PJM. For the month of April 2016, Duke Kentucky purchased 310,280 MWH from PJM at a cost of \$8,886,295.

- d. For April 2016, the financial hedges realized a gain of \$106,323, which means actual hourly LMP realized slightly higher than the fixed price the Company paid.

PERSON RESPONSIBLE: John Verderame

Trade Number	Date	Inst Type	Pricing Quote	Schedule	Peak Type	Buy/Sell	Trade Price	Price Ccy	Price UOM	Start Date	End Date	Market Price	Counterpart	Allocation	Position
3360037	10/21/2015	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Buy	36.75	USD	MWh	04/01/2016	04/30/2016	34.306065	SG Americas Securiti	Native	16,800
3361557	10/28/2015	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Buy	35.75	USD	MWh	04/01/2016	04/30/2016	34.306065	SG Americas Securiti	Native	16,800
3379735	02/04/2016	Financial Swap	AD Hub RT	Off-Peak 5x8, 2x24	Off-Peak	Buy	23.50	USD	MWh	04/01/2016	04/30/2016	26.305143	Wells Fargo Secur	Native	19,200
3382167	02/18/2016	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Buy	31.00	USD	MWh	04/01/2016	04/30/2016	34.306065	Wells Fargo Secur	Native	16,800
3383115	02/24/2016	Financial Swap	AD Hub RT	Off-Peak 5x8, 2x24	Off-Peak	Buy	23.00	USD	MWh	04/01/2016	04/30/2016	26.305143	Wells Fargo Secur	Native	19,200
3383214	02/25/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	29.85	USD	MWh	04/01/2016	04/30/2016	32.410900	Wells Fargo Secur	Native	16,800
3383215	02/25/2016	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Sell	29.75	USD	MWh	04/01/2016	04/30/2016	34.306065	Wells Fargo Secur	Native	(16,800)
3383463	02/26/2016	Financial Swap	AD Hub RT	Off-Peak 5x8, 2x24	Off-Peak	Buy	22.75	USD	MWh	04/01/2016	04/30/2016	26.305143	Wells Fargo Secur	Native	19,200
3384262	03/02/2016	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Buy	28.75	USD	MWh	04/01/2016	04/30/2016	34.306065	Wells Fargo Secur	Native	16,800
3385320	03/08/2016	Financial Swap	AD Hub RT	Off-Peak 5x8, 2x24	Off-Peak	Buy	21.25	USD	MWh	04/01/2016	04/30/2016	26.305143	Wells Fargo Secur	Native	19,200
3385331	03/08/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	27.50	USD	MWh	04/01/2016	04/30/2016	32.410900	Wells Fargo Secur	Native	16,800
3385332	03/08/2016	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Sell	27.50	USD	MWh	04/01/2016	04/30/2016	34.306065	Wells Fargo Secur	Native	(16,800)
3385509	03/09/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	27.70	USD	MWh	04/01/2016	04/30/2016	32.410900	Wells Fargo Secur	Native	16,800
3385510	03/09/2016	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Sell	27.75	USD	MWh	04/01/2016	04/30/2016	34.306065	Wells Fargo Secur	Native	(16,800)
3387633	03/21/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	28.80	USD	MWh	04/01/2016	04/30/2016	32.410900	Wells Fargo Secur	Native	16,800
3387634	03/21/2016	Financial Swap	AD Hub DA	Off-Peak 5x8, 2x24	Off-Peak	Buy	21.60	USD	MWh	04/01/2016	04/30/2016	25.194538	Wells Fargo Secur	Native	19,200
3387635	03/21/2016	Financial Swap	AD Hub RT	On-Peak 5x16	Peak	Sell	28.75	USD	MWh	04/01/2016	04/30/2016	34.306065	Wells Fargo Secur	Native	(16,800)
3387636	03/21/2016	Financial Swap	AD Hub RT	Off-Peak 5x8, 2x24	Off-Peak	Sell	21.50	USD	MWh	04/01/2016	04/30/2016	26.305143	Wells Fargo Secur	Native	(19,200)
3389726	04/01/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.00	USD	MWh	04/04/2016	04/04/2016	29.512451	Wells Fargo Secur	Native	800
3390036	04/04/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	34.00	USD	MWh	04/05/2016	04/05/2016	32.431328	Wells Fargo Secur	Native	1,600
3390266	04/05/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	29.00	USD	MWh	04/06/2016	04/06/2016	27.143946	Wells Fargo Secur	Native	800
3390282	04/05/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	28.75	USD	MWh	04/06/2016	04/06/2016	27.143946	Wells Fargo Secur	Native	800
3390459	04/06/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	27.00	USD	MWh	04/07/2016	04/07/2016	26.744213	Wells Fargo Secur	Native	800
3390903	04/08/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	32.50	USD	MWh	04/11/2016	04/11/2016	36.654308	Wells Fargo Secur	Native	800
3391341	04/11/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	34.00	USD	MWh	04/12/2016	04/12/2016	35.394180	Wells Fargo Secur	Native	800
3391345	04/11/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	34.50	USD	MWh	04/12/2016	04/12/2016	35.394180	Wells Fargo Secur	Native	800
3391346	04/11/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	34.75	USD	MWh	04/12/2016	04/12/2016	35.394180	Wells Fargo Secur	Native	800
3391347	04/11/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.50	USD	MWh	04/12/2016	04/12/2016	35.394180	Wells Fargo Secur	Native	800
3391535	04/12/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.50	USD	MWh	04/13/2016	04/13/2016	31.801142	Wells Fargo Secur	Native	800
3391544	04/12/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.50	USD	MWh	04/13/2016	04/13/2016	31.801142	Wells Fargo Secur	Native	1,600
3391734	04/13/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	32.00	USD	MWh	04/14/2016	04/14/2016	31.037851	Wells Fargo Secur	Native	800
3392074	04/15/2016	Financial Swap	AD Hub DA	Off-Peak 2x16	Off-Peak	Buy	31.50	USD	MWh	04/16/2016	04/17/2016	29.422207	Wells Fargo Secur	Native	1,600
3392731	04/19/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.50	USD	MWh	04/20/2016	04/20/2016	33.741764	Wells Fargo Secur	Native	1,600
3392732	04/19/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.50	USD	MWh	04/20/2016	04/20/2016	33.741764	Wells Fargo Secur	Native	800
3392943	04/20/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.00	USD	MWh	04/21/2016	04/21/2016	35.478092	Wells Fargo Secur	Native	1,600
3392944	04/20/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	33.00	USD	MWh	04/21/2016	04/21/2016	35.478092	Wells Fargo Secur	Native	1,600
3393322	04/22/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	42.00	USD	MWh	04/25/2016	04/25/2016	33.477081	Wells Fargo Secur	Native	1,600
3393323	04/22/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	43.00	USD	MWh	04/25/2016	04/25/2016	33.477081	Wells Fargo Secur	Native	1,600
3393330	04/22/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	37.00	USD	MWh	04/26/2016	04/29/2016	29.172075	Wells Fargo Secur	Native	6,400
3393331	04/22/2016	Financial Swap	AD Hub DA	On-Peak 5x16	Peak	Buy	37.00	USD	MWh	04/26/2016	04/29/2016	29.172075	Wells Fargo Secur	Native	3,200
															176,000

REQUEST:

State whether Duke Kentucky had any firm natural gas transportation service to any of its generating units during the period under review.

- a. If yes, state which, if any, of the following fees and/or adjustments are included for recovery through the FAC: Reservation fees; Transpiration Cost Rate Adjustment; Electric Power Costs Adjustment; Operational Transaction Rate Adjustment; and, Capital Cost Recovery Mechanism.
- b. If any of the fees listed in subpart a. are included for recovery through the FAC, provide the following:
 - (1) Whether the amount of the fees/adjustments differ if the generating unit supplied with firm natural gas transportation service operates or does not operate during the month.
 - (2) Whether these fees/adjustments are allocated to both native load and off-system sales.

RESPONSE:

Duke Energy Kentucky does not currently have firm natural gas transportation. Historically, Duke Energy Kentucky determined that given the very low capacity factor at Woodsdale, the fixed monthly cost of firm transportation was not economically justified by the intermittent dispatch of Woodsdale as a peaking unit(s). Duke Energy

Kentucky does have other non-firm agreements in place to manage the day to day natural gas requirements at Woodsdale. Firm transportation is, however, under evaluation as an alternative in meeting the PJM Capacity Performance fuel reliability requirements, and may be recommended if demonstrated to be the least cost investment required to bring Woodsdale into compliance with the fuel availability standards of Capacity Performance.

PERSON RESPONSIBLE: John Verderame

REQUEST:

Refer to the e-mail conversation attached as an appendix to this order.

- a. Provide full details of the PJM load miscalculation referred to in the e-mail.
- b. Provide the date Duke Kentucky became aware of the load miscalculation.
- c. State the amounts that were credited to customers through the FAC and the expense months in which the credits were recorded. Provide supporting documentation that the amounts were credited. If amounts were not credited through the FAC, explain.

RESPONSE:

- a. The load miscalculation stems from the Longbranch delivery point. Longbranch is a Duke Energy Kentucky load delivery point which takes transmission service from the East Kentucky Power Cooperative (EKPC) transmission system. During the time that Duke Energy Kentucky was a member of PJM, and EKPC was not, load associated with Longbranch was aggregated with Duke Energy Kentucky load served from the Duke Energy transmission system. This aggregated value was utilized for settlements by PJM.

When EKPC began operating as a member of PJM on or about June 1, 2013, its Longbranch load was submitted to PJM as a discrete value, for the purposes of PJM settlements, as would be considered the norm (i.e. network load

is typically reported in a way that matches it to the zone of the transmission owning member from whose transmission it is served). Concurrent to this, the aggregation of Longbranch load with Duke Energy Kentucky load served from the Duke Energy transmission system should have stopped. It did not. This caused Longbranch load to be reported twice (once as part of Duke Kentucky load proper, and once as a discrete load served from EKPC) for settlement. This situation began on June 1, 2013, and continued through the end of 2014 (for the purposes of PJM settlement).

The load miscalculation impacted Duke Energy Kentucky's calculation of costs and credits to Company's FAC and profit sharing mechanism (Rider PSM), respectively. Upon discovery of the error, the Company immediately notified PJM and resubmitted the monthly MW data for 2015, thereby correcting the billing determinants for calendar year 2015. The Company then began discussing the issue with PJM to determine the correct method to resubmit the reported MWs for prior periods of June 1, 2013 through December 31, 2014 and for PJM to resettle based upon the corrected billing determinants. After discussion, PJM informed Duke Energy Kentucky that the Company could not simply restate prior period billings, but must go through the PJM-tariffed voluntary resettlement process. The Company initiated that process, in accordance with PJM rules, which required getting consent from other users of the Duke Energy transmission system who are allocated costs based on their respective shares (e.g., Duke Energy Ohio and Duke Energy Ohio standard service offer suppliers). PJM then began resettling prior

periods starting with the June 2013 month and working forward. The Company received the first such billing adjustment in its October 2015 invoice from PJM.

- b. Duke Energy Kentucky became aware of the issue in March 2015. The Company was able to correct the calendar year 2015 MW reporting errors on its own beginning in April 2015, but after multiple discussions with PJM, had to go through a PJM resettlement process for the period June 1, 2013 through December 31, 2014.
- c. No amounts were credited to customers through the FAC in any expense month during the review period due to timing of the receipt of the resettlements from PJM. Credits of \$212,123.51 for the month of November 2014 and \$250,965.52 for the month of December 2014 were included in the June 2016 expense month FAC filing.

The Company was limited, due to timing and Kentucky rules and regulations, in its ability to adjust its FAC (costs or credits) for periods that were closed for Commission review. At the Company's request and after agreement with all impacted parties, PJM initiated its voluntary resettlement process and agreed to perform resettlements related to the Longbranch load miscalculation for the months of June 2013 through December 2014. Duke Energy Kentucky began to see PJM billing line item (BLI) credits for items dating back to the periods of June 2013 through December 2014, beginning on its October 2015 PJM invoice and ending on its March 2016 invoice.

It was the Company's intent to pass all of the credits to customers through its FAC and PSM, as applicable. However, after discussion with Commission Staff

and its legal department, the Company learned that it was limited in its ability to adjust its FAC and PSM due to timing limitations. First, the Commission Staff notified the Company that KRS 278.225 prohibited any adjustments to be passed through any rate mechanism for any months which were more than two years old. KRS 278.225 states *“All service supplied by a utility shall be billed within two (2) years of the service. No customer shall be liable for unbilled service after two (2) years from the date of the service, unless the customer obtained the service through fraud, theft, or deception.”* Second, the Company was told by Commission Staff that no adjustments could be included in the FAC for any expense months that fell within a two-year review period for which a Commission Order closing the two-year review had been received. The Company’s last two year review of its FAC was Case No. 2014-00454, for the period November 1, 2012 through October 31, 2014. The Commission issued its Order in the case on August 11, 2015, before PJM agreed to and began its resettlement calculations. As a result of the issues discussed above, the billing adjustments received by the Company (costs and credits) from PJM for the months of June 2013 through October 2014 were not permitted to be passed through to customers in its FAC because the two-year review period had been closed. And any adjustments related to the PSM were limited by KRS 278.225.

The Staff did agree that the Company could pass costs and credits to customers attributed its Profit Sharing Mechanism (PSM) going back to June 2013, and therefore the Company was able to pass \$860,815 of net credits to its customers through the PSMs filed in February, May and July of 2016.

See Staff-DR-01-032 Attachment, which is Schedule 7, Prior Period Corrections, from Duke Energy Kentucky's June 2016 expense month FAC filing as supporting documentation that the amounts were credited to customers in the FAC.

PERSON RESPONSIBLE: Theodore H. Czupik, Jr./Tim Abbott

Schedule 7

DUKE ENERGY KENTUCKY
PRIOR PERIOD CORRECTIONS
FUEL COST SCHEDULE

Expense Month:		January 2016 Dollars (\$)	November 2014 Dollars (\$)	December 2014 Dollars (\$)	Total Dollars (\$)
A. Company Generation					
Coal Burned	(+)	\$8,935,864.60	8,551,190.93	7,408,442.18	
Oil Burned	(+)	81,233.00	74,829.00	155,165.81	
Gas Burned	(+)	\$319,380.52	\$184,372.92	\$8,979.31	
PJM Balancing & Day Ahead Operating Reserve Credit	(-)	101,863.82	27,581.05	-	
Fuel (assigned cost during Forced Outage ^(a))	(+)	154,596.67	3.63	100,592.69	
Fuel (substitute cost during Forced Outage ^(a))	(-)	-	-	12,155.65	
Sub-Total		<u>\$ 9,389,210.97</u>	<u>\$ 8,782,815.43</u>	<u>\$ 7,661,024.34</u>	
B. Purchases					
Economy Purchases	(+)	\$ 933,594.04	\$ 242,471.56	\$ 1,564,435.71	
Other Purchases	(+)	-	-	-	
Other Purchases (substitute for Forced Outage ^(a))	(-)	196,902.29	6.09	135,681.25	
Less purchases above highest cost units	(-)	-	-	-	
Sub-Total		<u>\$ 736,691.75</u>	<u>\$ 242,465.47</u>	<u>\$ 1,428,754.46</u>	
C. Non-Native Sales Fuel Costs		\$419,202.73	\$1,021,591.40	\$497,820.83	
D. Total Fuel Costs (A + B - C)		<u>\$ 9,706,699.99</u>	<u>\$ 8,003,689.50</u>	<u>\$ 8,591,957.97</u>	
E. Total Fuel Costs Previously Reported		\$9,346,143.60	\$8,215,813.01	\$8,842,923.49	
F. Prior Period Adjustment		\$ -	\$ -	\$ -	
G. Adjustment due to PJM Resettlements		<u>\$ 360,556.39</u>	<u>\$ (212,123.51)</u>	<u>\$ (250,965.52)</u>	<u>\$ (102,532.64)</u>

Note: ^(a) Forced Outage as defined in 807 KAR 5:056.