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PUBLIC SERVICE COMMISSION

March 28, 2016

HAND DELIVERED

Executive Director Kentucky Public Service Commission P.O. Box 615 211 Sower Boulevard Frankfort, KY 40602

Re: PSC Case No. 2016-00002

Dear Executive Director,

Please find enclosed for filing with the Commission in the above-referenced case an original and seven copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC"), to Staff's Third Request for Information dated March 18, 2016.

Mark Vand Loss (by Ray Randa)

Very truly yours,

Mark David Goss

Enclosures

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION OF THE APPLICATION OF)	
THE FUEL ADJUSTMENT CLAUSE OF EAST)	CASE NO.
KENTUCKY POWER COOPERATIVE, INC.)	2016-00002
INC. FROM MAY 1, 2015 THROUGH OCTOBER 31,)	
2015	j .	

RESPONSES TO COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION TO EAST KENTUCKY POWER COOPERATIVE, INC. DATED MARCH 18, 2016

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN	THE	MA	TTER	OF.

AN EXAMINATION OF THE APPLICATION OF)	
THE FUEL ADJUSTMENT CLAUSE OF EAST)	CASE NO.
KENTUCKY POWER COOPERATIVE, INC.)	2016-00002
INC. FROM MAY 1, 2015 THROUGH OCTOBER)	
31, 2015)	

CERTIFICATE

STATE OF KENTUCKY)
COUNTY OF CLARK)

Mark Horn, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Third Request for Information in the above-referenced case dated March 18, 2016, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 28th day of March 2016.

GWYN M. WILLOUGHBY Notary Public State at Large Kentucky My Commission Expires Nov 30, 2017

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN	THE	MA	TTER	OF:

AN EXAMINATION OF THE APPLICATION OF)	
THE FUEL ADJUSTMENT CLAUSE OF EAST)	CASE NO.
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INC. FROM MAY 1, 2015 THROUGH OCTOBER)	
31, 2015	í	

CERTIFICATE

STATE OF KENTUCKY)
COUNTY OF CLARK)

Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Third Request for Information in the above-referenced case dated March 18, 2016, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 244 da

day of March 2016.

otary Public

GWYN M. WILLOUGHBY Notary Public State at Large Kentucky

My Commission Expires Nov 30, 2017

PSC CASE NO. 2016-00002

PUBLIC SERVICE COMMISSION REQUEST DATED 03/18/16

East Kentucky Power Cooperative, Inc. ("EKPC") hereby submits responses to the information requests contained in the Third Request for Information of the Public Service Commission ("PSC") in this case dated March 18, 2016. Each response with its associated supportive reference materials is individually tabbed.

Page 1 of 9

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2016-00002 FUEL ADJUSTMENT CLAUSE RESPONSE TO INFORMATION REQUEST

COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION DATED 03/18/16 REQUEST 1

RESPONSIBLE PARTY: Mark Horn

Request 1. In its monthly fuel adjustment clause ("FAC") backup files, East Kentucky provides an analysis of coal purchases that includes a state and coal district number for the source of the coal.

Request 1a. Confirm that East Kentucky is using District No. 8 (for eastern Kentucky) and District No. 9 (for western Kentucky) when identifying Kentucky coal districts in its FAC backup filings.

Response 1a. Yes, East Kentucky Power Cooperative ("EKPC") is using District 8 for Eastern Kentucky Coal and District 9 for Western Kentucky Coal.

Request 1b. State whether the state and coal district numbers are those utilized by the Mine Safety and Health Administration. If not, state the entity that designates the coal district numbers utilized by East Kentucky in its FAC backup filings.

Response 1b. No, the coal district numbers being utilized are not the ones designated by MSHA. EKPC has been using District numbers provided by FERC dating back to when the FERC form 423 was still being submitted.

Request 1c. For the entity identified in part b. above, provide a map showing the current coal districts.

Response 1c. Please see following pages 4 through 9 for a listing of districts that EKPC has been using.

Request 1d. Provide the date of the last change made by the entity identified in part b. above to the coal district numbering. If East Kentucky did not begin using the new coal district numbering when the change was made, explain why.

Response 1d. There are no dates listed on the following pages 4 through 9, so EKPC does not know if there have been revisions. As far as EKPC is aware, there have not been any revisions.

Request 1e. Explain the input and review process for the state and coal district numbers provided in the monthly analysis of coal purchase schedule and how East Kentucky ensures that the information is accurate.

Response 1e. EKPC obtains the county and state of origin from the coal supplier before each purchase of coal is made. The state and district number is then input into our coal accounting system along with other relevant data from the contract.

The current Energy Information Administration form 923 does not require a district number; therefore, if the PSC would prefer, EKPC could start using the MSHA district numbers going forward.

FERC Form No. 423 Coal Producing Districts

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District	States	Counties/Mines DR5/ Mining
District 1	Maryland	All mines in the State.
	Pennsylvania	All mines in the following counties: Bedford, Blair, Bradford, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Elk, Forest, Fulton, Huntingdon, Jefferson, Lycoming, McKean, Mifflin, Potter, Somerset, and Tioga. Selected mines in the following counties: Armstrong County (part), all mines east of the Allegheny River, and those mines served by the Pittsburgh and Shawmut Railroad located on the west bank of the river; Fayette County (part), all mines located on and east of the line of Indian Creek Valley branch of CSX Transportation, Inc. (formally the Baltimore and Ohio Railroad); Indiana County (part), all mines not served by the Saltsburg branch of the Consolidated Rail Corporation; and Westmoreland County (part), all mines served by the Consolidated Rail Corporation from Torrance, east.
	West Vir <mark>gini</mark> a	All mines in the following counties: Grant, Mineral, and Tucker.
District 2	Pennsylvania	All mines in the following counties: Allegheny, Beaver, Butler, Greene, Lawrence, Mercer, Venango, and Washington. Selected mines in the following counties: Armstrong County (part), all mines west of the Allegheny River except those mines served by the Pittsburgh and Shawmut Railroad; Fayette County (part), all mines except those on and east of the line of Indian Creek Valley branch of CSX Transportation, Inc. (formally the Baltimore and Ohio Railroad); Indiana County (part), all mines served by the Saltsburg branch of the Consolidated Rail Corporation; and Westmoreland County (part), all mines except those served by the Consolidated Rail Corporation from Torrance, east.
District 3	West Virginia	All mines in the following counties: Barbour, Braxton, Calhoun, Doddridge, Gilmer, Harrison, Jackson, Lewis, Marion, Monongalia, Pleasants, Preston, Randolph, Ritchie, Roane, Taylor, Tyler, Upshur, Webster, Wetzel, Wirt, and Wood. Selected mines in Nicholas County (part), all mines served by or north of CSX Transportation, Inc. (formally the Baltimore and Ohio Railroad).

District	States	Counties/Mines
District 4	Ohio	All mines in the State.
District 5	Michigan	All mines in the State.
District 6	West Virginia	All mines in the following counties: Brooke, Hancock, Marshall, and Ohio.
District 7	Virginia	All mines in the following counties: Craig, Giles, Montgomery, Pulaski, and Wythe. Selected mines in the following counties: Buchanan County (part), all mines in that portion of the county served by the Richlands-Jewell Ridge branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) and in that portion on the headwaters of Dismal Creek east of Lynn Camp Creek (a tributary of Dismal Creek); and Tazewell County (part), all mines in those portions of the county served by the Dry Fork branch to Cedar Bluff and from Bluestone Junction to Boissevain branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) and Richlands-Jewell Ridge branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.).
	West Virginia	All mines in the following counties: Greenbrier, Mercer, Monroe, Pocahontas, and Summers. Selected mines in the following counties: Fayette County (part), all mines east of Gauley River and all mines served by the Gauley River branch of CSX Transportation, Inc. (formally the Chesapeake & Ohio Railroad) and mines served by the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.); McDowell County (part), all mines in that portion of the county served by the Dry Fork branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) and east thereof; Raleigh County (part), all mines except those on the Coal River branch of CSX Transportation, Inc. (formally the Chesapeake & Ohio Railroad) and north thereof; and Wyoming County (part), all mines in that portion served by the Guyandot branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) lying east of the mouth of Skin Fork of Guyandot River and in that portion served by the Virginia division main line of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.).

District	States	Counties/Mines
District 8	Kentucky	All mines in the following counties in eastern Kentucky: Bell, Boyd, Breathitt, Carter, Clay, Clinton, Elliott, Estill, Floyd, Greenup, Harlan, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, McCreary, Magoffin, Martin, Menifee, Morgan, Owsley, Perry, Pike, Pulaski, Rockcastle, Wayne, Whitley, and Wolfe.
	North Carolina	All mines in the State.
	Tennessee	All mines in the following counties: Anderson, Campbell, Claiborne, Cumberland, Fentress, Morgan, Overton, Putnam, Roane, and Scott.
	Virginia	All mines in the following counties: Dickenson, Lee, Russell, Scott, and Wise. Selected mines in the following counties: Buchanan County (part), all mines in the county, except in that portion on the headwaters of Dismal Creek, east of Lynn Camp Creek (a tributary of Dismal Creek) and in that portion served by the Richlands-Jewell Ridge branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.); and Tazewell County (part), all mines in the county except in those portions served by the Dry Fork branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) and branch from Bluestone Junction to Boissevain of Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) and Richlands-Jewell Ridge branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.).

District	States	Counties/Mines
District 8	West Virginia	All mines in the following counties: Boone, Cabell, Clay, Kanawha, Lincoln, Logan, Mason, Mingo, Putnam, and Wayne. Selected mines in the following counties: Fayette County (part), all mines west of the Gauley River except mines served by the Gauley River branch of CSX Transportation, Inc. (formally the Chesapeake & Ohio Railroad); McDowell County (part), all mines west of and not served by the Dry Fork branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.); Nicholas County (part), all mines in that part of the county south of and not served by CSX Transportation, Inc. (formally the Baltimore & Ohio Railroad); Raleigh County (part), all mines on the Coal River branch of CSX Transportation, Inc. (formally the Chesapeake & Ohio Railroad) and north thereof; and Wyoming County (part), all mines in that portion served by the Guyandot branch of the Norfolk & Western Railroad (a subsidiary of the Norfolk Southern Corp.) lying west of the mouth of Skin Fork of Guyandot River.
District 9	Kentucky	All mines in the following counties in western Kentucky: Butler, Caldwell, Christian, Crittenden, Daviess, Edmonson, Grayson, Hancock, Henderson, Hopkins, Logan, McLean, Muhlenberg, Ohio, Simpson, Todd, Union, Warren, and Webster.
District 10	Illinois	All mines in the State.
District 11	Indiana	All mines in the State.
District 12	Iowa	All mines in the State.
District 13	Alabama	All mines in the State.
	Georgia	All mines in the State.
	Tennessee	All mines in the following counties: Bledsoe, Grundy, Hamilton, Marion, McMinn, Rhea, Sequatchie, Van Buren, Warren, and White.
District 14	Arkansas	All mines in the State.
	Oklahoma	All mines in the following counties: Haskell, Le Flore, and Sequoyah.

District	States	Counties/Mines
District 15	Kansas	All mines in the State.
	Louisiana	All mines in the State.
	Missouri	All mines in the State.
	Oklahoma	All mines in the following counties: Coal, Craig, Latimer, McIntosh, Muskogee, Nowata, Okmulgee, Pittsburg, Rogers, Tulsa, and Wagoner.
	Texas	All mines in the State.
District 16	Colorado	All mines in the following counties: Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld.
District 17	Colorado	All mines except those included in District 16.
	New Mexico	All mines except those included in District 18.
District 18	Arizona	All mines in the State.
	California	All mines in the State.
	New Mexico	All mines in the following counties: Grant, Lincoln, McKinley, Rio Arriba, Sandoval, San Juan, San Miguel, Santa Fe, and Socorro.
District 19	Idaho	All mines in the State.
	Wyoming	All mines in the State.
District 20	Utah	All mines in the State.
District 21	North Dakota	All mines in the State.
	South Dakota	All mines in the State.

District	States	Counties/Mines
District 22	Montana	All mines in the State.
District 23	Alaska	All mines in the State.
	Oregon	All mines in the State.
	Washington	All mines in the State.
District 24	Pennsylvania	All mines in the following counties: Berks, Carbon, Columbia, Dauphin, Lackawanna, Lebanon, Luzerne, Northumberland, Schuylkill, Sullivan, and Susquehanna. All anthracite mines in Bradford County.
District 25	Imported Coal	Poland
District 30	Imported Coal	South Africa
District 35	Imported Coal	Australia ·
District 40	Imported Coal	Canada
District 45	Imported Coal	Columbia
District 50	Imported Coal	Venezuela
District 55	Imported Coal	Indonesia

PSC CASE NO. 2016-00002 FUEL ADJUSTMENT CLAUSE RESPONSE TO INFORMATION REQUEST

COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION DATED 03/18/16 REQUEST 2

RESPONSIBLE PARTY:

Mark Horn

Refer to East Kentucky's response to the Commission's February 5, 2016
Request for Information, Item 25. The question should have asked whether all fuel contracts related to commodity and/or transportation had been filed with the Commission instead of specifying long-term contracts. State whether all contracts have been filed.

Response 2. All fuel contracts related to commodity and/or transportation have been filed with the Commission. All terms (long or short) and all natures of purchase (contract or spot) are filed with the Commission on the next filing date following execution.

PSC CASE NO. 2016-00002 FUEL ADJUSTMENT CLAUSE RESPONSE TO INFORMATION REQUEST

COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION DATED 03/18/16 REQUEST 3

RESPONSIBLE PARTY:

Julia J. Tucker

Refer to East Kentucky's response to Commission Staff's Second Request for Information, Item 2.

Request 3a. Explain how East Kentucky decided on the methodology used for calculating its highest-cost unit.

Response 3a. When determining whether to purchase energy or run a generating unit, the dispatcher will consider the fuel cost, variable operations and maintenance costs, start-up costs and any other designated variable costs (such as environmental costs) that will be incurred from starting the unit and compare that to the all-in cost of purchasing the energy. EKPC has heat rate curves for each of its generating units. Each unit cannot operate below its minimum load level. Average heat rates improve as the units are loaded to higher-efficiency loading points. Based on that comparison, an economic decision will be made. The Fuel Adjustment Clause deals only with the fuel component of this equation. Therefore, EKPC looks at the heat

rate at the minimum load level of each generating unit and multiplies that times the cost of fuel to determine the fuel cost to run the unit. The maximum unit cost is the one chosen as the highest cost unit. J. K. Smith 1, 2 and 3 are identical combustion turbines and have the highest heat rates, therefore, they are the highest cost units. That cost is compared to the price of energy purchased to determine how much of the purchased energy can be run through the FAC.

Request 3b. For each month of the review period, provide the \$/MWh that was calculated as the highest-cost unit.

Response 3b. The \$/MWh that was calculated as the highest-cost unit is provided below.

May 2015: 16,034 mmbtu/kWh * \$3.20/mmbtu / 1,000 kWh/MWh = \$51.31/MWh

June 2015: 16,034 * \$3.02 / 1,000 = \$48.42/MWhJuly 2015: 16,034 * 3.23 / 1,000 = \$51.79/MWhAugust 2015: 16,034 * 3.11 / 1,000 = \$49.87/MWhSeptember 2015: 16,034 * 2.95 / 1,000 = \$47.30/MWhOctober 2015: 16,034 * 2.70 / 1,000 = \$43.29/MWh

Request 3c. For each month of the review period, provide the natural gas price used in the calculation of the highest-cost unit.

Response 3c. Please see response to Request 3b.

Request 3d. State the origin of the natural gas price provided in part c. above.

Response 3d. EKPC utilizes ACES to purchase its natural gas for the Smith combustion turbines. When ACES makes the deal for the purchase of natural gas, the trader enters the deal into ACES' computer system. EKPC can then access that information from ACES' site at any time during the month. At various times during the month, but at least at the end of the month, EKPC checks the supplier confirmations it has received from the supplier of the gas transactions, against the ACES listing to ensure accuracy. At the end of the month, EKPC reviews all of the purchases during the month to see what the highest price it has paid for natural gas at the Smith Site. That price is then used in the highest cost unit calculation for the FAC.

Request 3e. Provide the MW capacity of Smith Unit 1 and the minimum level at which the unit can operate.

Response 3e. J.K. Smith 1 maximum summer rating = 110 MW; minimum rating = 50

MW

Request 3f. Provide the MW capacity of Smith Unit 2 and the minimum level at which the unit can operate.

Response 3f. J.K. Smith 2 maximum summer rating = 110 MW; minimum rating = 50

Request 3g. Provide the MW capacity of Smith Unit 3 and the minimum level at which the unit can operate.

Response 3g.

J. K. Smith 3 maximum summer rating = 110 MW; minimum rating = 50 MW

Request 3h. Confirm that East Kentucky uses the minimum level of operation in the highest-cost unit calculation regardless of the level of operation of the Smith units during the month.

Response 3h. Yes, EKPC uses the minimum level of operation in the highest-cost unit calculation regardless of the level of operation of the Smith units during the month.

Request 3i. State whether there are occasions wherein PJM Interconnection, LLC ("PJM") dispatches the Smith units to operate at minimum load. If yes, provide the frequency of the requests and the reasons PJM makes the requests.

Response 3i. Yes, there are occasions wherein PJM dispatches the Smith units to operate at minimum load. There were approximately 250 hours during the review period that PJM called for J.K. Smith 1, 2 and/or 3 and dispatched the units at or near minimum load. PJM operates at these levels to either meet economic dispatch or reliability criteria.

Request 3j. State whether one or more of the Smith units were available to be dispatched during all months of the review period.

Response 3j. Yes, one or more of the J.K. Smith 1, 2 and 3 units were available for dispatch at all times during the review period.

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PSC CASE NO. 2016-00002 FUEL ADJUSTMENT CLAUSE RESPONSE TO INFORMATION REQUEST

COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION DATED 03/18/16 REQUEST 4

RESPONSIBLE PARTY:

Julia J. Tucker

Request 4. For each month of the review period, using the highest generation cost (\$/MWh) actually incurred for the highest-cost Smith unit (using the actual price paid for the natural gas), provide the amount of power purchases that would have been excluded compared to the amount that was excluded using East Kentucky's methodology. Include the heat rate for each month in the response. For any month in which the Smith units did not operate but one or more units were available to operate, assume a maximum level of operation.

Response 4. J. K. Smith 1 ran at minimum load level at some point during each month of the review period. Therefore, the actual heat rate at minimum load and the actual highest price of gas paid in the month have already been utilized in EKPC's monthly filings so there are no additional cost of purchases that would be excluded with this methodology.

PSC CASE NO. 2016-00002 FUEL ADJUSTMENT CLAUSE RESPONSE TO INFORMATION REQUEST

COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION DATED 03/18/16 REQUEST 5

RESPONSIBLE PARTY: Julia J. Tucker

Request 5. For each month of the review period, recalculate the generation cost of the highest-cost unit using the maximum level at which the highest-cost Smith unit can operate and provide the amounts of power purchases that would have been excluded using this calculation compared to the amount that was excluded. Include the heat rate for each month in the response.

Response 5. J. K. Smith 1, 2, or 3 have a 12,648 mmbtu/kWh heat rate at 110 MW load level. The fuel cost is the same as listed in Response 3c.

May 2015: 12,648 mmbtu/kWh * \$3.20/mmbtu / 1,000 kWh/MWh = \$40.47/MWh

June 2015: 12,648 * \$3.02 / 1,000 = \$38.20/MWh July 2015: 12,648 * 3.23 / 1,000 = \$40.85/MWh August 2015: 12,648 * 3.11 / 1,000 = \$39.34/MWh September 2015: 12,648 * 2.95 / 1,000 = \$37.31/MWh October 2015: 12,648 * 2.70 / 1,000 = \$34.15/MWh

May 2015: Purchases excluded with full load heat rate = \$449,626

Purchases excluded with minimum load heat rate (as filed) = \$234,637

Difference in methodology = \$214,989

June 2015: Purchases excluded with full load heat rate = \$668,944

Purchases excluded with minimum load heat rate (as filed) = \$349,973

Difference in methodology = \$318,971

July 2015: Purchases excluded with full load heat rate = \$92,351

Purchases excluded with minimum load heat rate (as filed) = \$60,007

Difference in methodology = \$32,344

August 2015: Purchases excluded with full load heat rate = \$336,438

Purchases excluded with minimum load heat rate (as filed) = \$102,134

Difference in methodology = \$234,304

September 2015: Purchases excluded with full load heat rate = \$665,406

Purchases excluded with minimum load heat rate (as filed) = \$342,606

Difference in methodology = \$322,800

October 2015: Purchases excluded with full load heat rate = \$415,281

Purchases excluded with minimum load heat rate (as filed) = \$172,701

Difference in methodology = \$242,580