KPSC Case No. 2018-00018

Commission Staff's First Set of Data Requests<br>Dated February 16, 2018

## DATA 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

Please refer to KPCO_R_KPSC_1_01_Attachment1.pdf for the requested information. For purposes of the Company's monthly fuel adjustment clause back-up filings, Kentucky Power defines a spot purchase as an agreement with a term of one year or less. To permit the Commission to reconcile this response to the Company's fuel adjustment clause back-up filings, the term "spot purchase" is likewise defined for purposes of KPCO_R_KPSC_1_01_Attachment1.xls as any purchase with a term of one year or less.

The Company's definition of spot purchase for purposes of this response and Kentucky Power's fuel adjustment clause back-up filings differs slightly from the definition used by Commission Staff in KPSC 1-02 (defining spot purchase as less than one year) and the accompanying response by Kentucky Power.

Witness: Clinton M. Stutler

KPSC Case No. 2018-00018 Commission Staff's First Set of Data Requests Dated February 16, 2018

Item No. 1 Attachment 1

Page 1 of 1

| Counterparty | Type of Purchase | Total Tons** |
| :---: | :---: | :---: |
| Alpha Coal Sales Co., LLC | Spot | 299,097 |
| Consolidation Coal Company and McElroy Coal Company* | Contract | 399,410 |
| Ember Energy LLC | Spot | 43,404 |
| Golden Eagle Incorporated | Spot | 1,513 |
| SNR RiverOps LLC | Spot | 24,400 |
| Seminole Coal Resources, LLC | Spot | 54,066 |
| Southeastern Land, LLC | Spot | 689 |
|  |  |  |
|  | Grand Total | 822,577 |
| *Formerly listed as Consolidation Coal Company - OVRI |  |  |
| **Tonnage information is reported per Kentucky Power ownership share. | Total Contract | 49\% |
| Differences when compared to monthly filings are related to accounting | Total Spot | 51\% | adjustments outside of the review period.

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests <br> Dated February 16, 2018

## DATA REQUEST

1-002 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

Please refer to attachment KPCO_R_KPSC_1_02_Attachment1.pdf for the requested information presented in conformity with the provided definition of "long term" fuel contract used in this data request.

Witness: Clinton M. Stutler

This response is provided for the time period of May 1, 2017 through October 31, 2017 and lists all pertinent fuel contract information requested. Tonnage information is reported per Kentucky Power ownership share.

## ALPHA COAL SALES CO., LLC

a. 03-00-16-004
b. Alpha Coal Sales Co., LLC
c. Mammoth, Black Castle, Republic, and Empire mines in Kanawha, Boone, and Raleigh counties WV
d. Barge
e. 113,473
f. 75,000
g. $\$ 50.00$

## ALPHA COAL SALES CO., LLC

a. 03-00-16-002
b. Alpha Coal Sales Co., LLC
c. Black Castle, Slabcamp, Republic or various Boone and Kanawha County West Virginia mines
d. Barge
e. 142,615
f. 125,000
g. $\$ 48.00$

## CONSOLIDATION COAL COMPANY and MCELROY COAL COMPANY

a. 07-77-05-900
b. Consolidation Coal Company and McElroy Coal Company
c. McElroy Mine, Marshall, WV
d. Conveyor
e. 399,661
f. 335,636
g.* \$50.980

* This price includes 2016 shortfall carryover tonnage, received during the period under review.


## SEMINOLE COAL RESOURCES, LLC

a. 03-00-16-007
b. Seminole Coal Resources, LLC
c. Sycamore Surface Mine, Kanawha and Fayette Counties, WV
d. Barge
e. 54,095
f. 60,000
g. $\$ 53.00$

## EMBER ENERGY, LLC

a. 03-00-16-003
b. Ember Energy, LLC
c. Various Mines in Magoffin County Kentucky
d. Barge
e. 43,406
f. 45,000
g. $\$ 49.74$

# KPSC Case No. 2018-00018 <br> Commission Staff's First Set of Data Requests <br> Dated February 16, 2018 

## Page 1 of 2

## DATA REQUEST

1-003
a. As of the last day of the review period, 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. (1) State whether any significant changes in the current coal inventory target are expected within the next 12 months.
(2) If so, state the expected change, and the reasons for this change.

## RESPONSE

a. As of October 31, 2017 Kentucky Power's fifty percent share of coal inventory levels were as follows:
Mitchell High Sulfur: 178,716 tons, or 47 days of supply
Mitchell Low Sulfur: 67,594 tons, or 18 days of supply
b. Days' supply is determined by dividing the Company's share of tons of coal in storage by the full load burn rate (tons per day).

For Mitchell High Sulfur: $\quad 178,716$ tons in storage as of 10/31/2017 $=47$ days
3,840 (full load burn rate* - tons/day)

For Mitchell Low Sulfur: $\quad 67,594$ tons in storage as of 10/31/2017 $=18$ days
3,840 (full load burn rate* - tons/day)
*Company's 50\% share
c. As of October 31, 2017,

Mitchell High Sulfur: Target Inventory Days = 15 days, Actual Inventory Days = 47 days ( 32 days over target)
Mitchell Low Sulfur: Target Inventory Days = 30 days, Actual Inventory Days = 18 (12 days under target)

# KPSC Case No. 2018-00018 <br> Commission Staff's First Set of Data Requests <br> Dated February 16, 2018 

## Page 2 of 2

d. High sulfur inventory remains above target due to contractual supply commitments. The Company currently has pending before the Commission in Case No. 2017-00446 an application seeking authority to sell up to 200,000 tons of its share of high sulfur Northern Appalachian coal scheduled for delivery in 2018 to the Mitchell generating station.
e. (1) No. Kentucky Power does not expect any significant changes in the coal inventory target for the Mitchell plant within the next 12 months.
e. (2) Not Applicable.

Witness: Clinton M. Stutler

## Commission Staff's First Set of Data Requests <br> Dated February 16, 2018

## DATA REQUEST

1-004 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 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. and b. Please refer to KPCO_R_KPSC_1_04_Attachment 1.pdf for information concerning the Company's two written coal-supply solicitations.

Please also refer to KPCO_R_KPSC_1_04_Confidential_Attachment2.pdf and KPCo_R_KPSC_1_04_Confidential_Attachment3.pdf for information relating to the offering vendors, analyses, and ranked proposals for the August 29, 2017 solicitation.

Additionally, refer to KPCO_R_KPSC_1_04_Confidential_Attachment4.pdf for information relating to the offering vendors, analyses, and ranked proposals for the June 15, 2017 solicitation.

Witness: Clinton M. Stutler

KPSC Case No. 2018-00018
Commission Staff's First Set of Data Requests
Dated February 16, 2018
Item No. 4
Attachment 1
Page 1 of 2

| Date of Solicitation | June 15, 2017 |
| :---: | :---: |
| Quantities Solicited | Up to 333,500 tons |
| Type of Solicitation | Spot |
| Coal Heat Content (BTU/Ib) | 12,500 |
| Moisture (\%) | 10.00\% |
| Ash (\%) | 9.00\% |
| lbs. $\mathrm{SO}_{2} / \mathrm{mmBtu}$ | 6.00 |
| Time Period Over Which Deliveries Were Requested | January 1, 2018 - December 31, 2020 |
| Applicable Generating Units | Mitchell Plant |
| Number of Vendors Solicitation was Sent To | 3 |
| Number of Vendors that Responded to Solicitation | 3 |
| Selected Vendor(s) | none |

KPSC Case No. 2018-00018
Commission Staff's First Set of Data Requests
Dated February 16, 2018
Item No. 4
Attachment 1
Page 2 of 2

| Date of Solicitation | August 29, 2017 |
| :---: | :---: |
| Quantities Solicited | Up to 290,000 tons (Q4 2017) Up to 1,375,000 tons (2018) |
| Type of Solicitation | Spot |
| Coal Heat Content (BTU/Ib) | 12,000 |
| Moisture (\%) | 10.00\% |
| Ash (\%) | 12.00\% |
| Ibs. $\mathrm{SO}_{2} / \mathrm{mmBtu}$ | 1.67 |
| Time Period Over Which Deliveries Were Requested | October 1, 2017 - December 31, 2017 <br> January 1, 2018 - December 31, 2018 |
| Applicable Generating Units | Mitchell Plant |
| Number of Vendors Solicitation was Sent To | 70 |
| Number of Vendors that Responded to Solicitation | 14 |
| Selected Vendor(s) | Alpha Coal Sales (2018) |

CY 2018 NYMEX Barge RFP Offers - Mitchell Plant / Attachment B

| Offer / Plant / Year | Quantity |  | Coal Price | Transportation |  |  | Offered Quality |  |  |  | Actual Quality |  |  |  | Quality Adjusted Delivered Pricing |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline \text { Mitchell Plant } \\ \text { CY } 2018 \\ \hline \end{array}$ | Tons | BTU | Coal Price | River | Mile Post | Rate | Btu | lbs. $\mathrm{SO}_{2}$ | Sulfur \% | Ash \% | Btu | lbs. $\mathrm{SO}_{2}$ | Sulfur \% | Ash \% | Quality Adj. | Quality Adjusted Delivered Cost | Delivered \$MMBTU |
| Alpha Coal Sales Co., LLC | 1,375,000 | 33,327,250 | \$52.50 | Kanawha Rvr | 69.0-84.4 | \$7.120 | 12,000 | 1.60 | 0.96 | 12.00 | 12,119 | 1.40 | 0.85 | 12.00 | \$3.114 | \$62.734 | \$2.5882 |

${ }^{1}$ The coal offered does not meet the required quality specifications

| $\mathrm{SO}_{2}$ Allowance Cost | $\$ 2.50$ |
| :--- | :--- |

Removal Cost $\$ /$ Ton \$156.9
$\square \quad$ Highly Sensitive and Confidential

Q4 2017 NYMEX Barge RFP Offers - Mitchell Plant / Attachment B

6/15/2017 NAPP Coal RFP Offers - Mitchell Plant / Attachment B

${ }^{1}$ Argus Coal Daily: 06.23.17
NAPP \& NYMEX forward pricing is not available for CY 2020

## Commission Staff's First Set of Data Requests <br> Dated February 16, 2018

## DATA REQUEST

1-005 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 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

There were no oral coal-supply solicitations during the period under review.

Witness: Clinton M. Stutler

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests

Dated February 16, 2018

## DATA REQUEST

1-006
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 refer to KPCO_R_KPSC_1_06_Attachment1.pdf for the requested information. The Company purchases natural gas only on the spot market. Kentucky Power enters into North American Energy Standards Board (NAESB) Master Agreements with each vendor for the purchase of natural gas. All NAESB Master Agreements and invoices evidencing individual transactions under the master agreement have been filed with the Commission.

Witness: Amy E. Jeffries
Stephen L. Sharp

KPSC Case No. 2018-00018 Commission Staff's First Set of Data Requests Dated February 16, 2018

Item No. 6
Attachment 1
Page 1 of 1


## DATA REQUEST

1-007
For the period under review, state if 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

Kentucky Power Company did not encounter any instances in which Big Sandy Unit 1, its sole natural gas unit, could not be operated, when it otherwise would have run, due to pipeline constraints or natural gas being unavailable, during the period under review

Witness: Amy E. Jeffries

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests

Dated February 16, 2018

## DATA REQUEST

1-008
State if 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

There have been no changes to hedging activities for coal or natural gas purchases since the prior FAC review proceeding.

Witness: Clinton M. Stutler
Amy E. Jeffries

## DATA REQUEST

1-009
a. State whether Kentucky Power has audited any of its fuel or transportation contracts during the period under review.
b. If so, for each audited contract:
(1) Identify the contract;
(2) Identify the auditor and
(3) State the results of the audit and describe the actions that Kentucky Power took as a result of the audit.

## RESPONSE

Kentucky Power did not audit any fuel or transportation contracts during the period under review.

Witness: Clinton M. Stutler
Amy E. Jeffries

## DATA REQUEST

1-010
a. State whether Kentucky Power is currently involved in any litigation with its current or former fuel suppliers or transportation vendors.
b. If yes, for each litigation:
(1) Identify the supplier or vendor;
(2) Identify the contract involved;
(3) State the potential liability or recovery to Kentucky Power;
(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 suppliers or vendors.

## RESPONSE

Kentucky Power is not currently involved in any litigation with current or former fuel suppliers or transportation vendors.

Witness: Clinton M. Stutler
Amy E. Jeffries

## DATA REQUEST

1-011
a. For the period under review, state if there have been any changes to Kentucky Power'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 Kentucky Power'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

There have been no changes during the review period to Kentucky Power's written policies and procedures regarding its fuel procurement. The current fuel procurement policy was last modified on August 31, 2015 and provided to the Commission in Case No. 2016-00230 on August 26, 2016.

Witness: Clinton M. Stutler
Amy E. Jeffries

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests <br> Dated February 16, 2018

## DATA REQUEST

1-012
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 MW, and the purpose of the commitment (i.e., peaking, emergency).

## RESPONSE

(a) Firm power purchases for Kentucky Power for the period from May 1, 2017 through October 31, 2017:

AEP Generating Company (Unit Power Agreement - Rockport Plant Base Load) - 393 MW
(b) Firm power sales: Commitments for Kentucky Power Company, other than retail jurisdictional customers, are the Cities of Olive Hill and Vanceburg, Kentucky as shown below. The numbers listed below represent the customer's peak load during the review period from May 1, 2017 to October 31, 2017. The cities use the power for load-following service to their citizens.

City of Olive Hill 10.8 MW
City of Vanceburg 4.7 MW

Witness: Stephen L. Sharp

## DATA REQUEST

1-013
Provide a monthly billing summary of sales to all electric utilities for the period under review.

## RESPONSE

Please refer to KPCO_R_KPSC_1_13_Attachment1.SG for the requested information.

Witness: Stephen L. Sharp

| Tracking Code | Description |
| :---: | :---: |
| ADPR2 | Advan Promotions, Inc. |
| AMCP2 | Central Illinois Light Company dba AmerenCILCO, Central Illinois Public Service Company |
| AMRX2 | Amerex Power, Ltd |
| APBE2 | ICAP Energy LLC |
| BANG2 | Village of Bangor, Wisconsin |
| BARR2 | City of Barron, Wisconsin |
| BGCF2 | BGC Financial LP |
| BLOO2 | City of Bloomer, Wisconsin |
| CADO2 | Village of Cadott, Wisconsin |
| CECA2 | Commonwealth Edison Co Auctio2 |
| CISO | California ISO |
| CORN2 | City of Cornell, Wisconsin |
| CPX | California Power Exchange |
| DEOI2 | Duke Energy Ohio, Inc. |
| DLPM | Duquesne Light Company |
| DPLG | The Dayton Power and Light Co. |
| DTET | DTE Energy Trading Inc. |
| EOXH2 | EOH Holdings, LLC |
| EVOF2 | Evolution Markets Futures, LLC |
| EVOL2 | Evolution Markets Inc. |
| GFIS2 | GFI Securities LLC |
| ICET2 | ICE Trade Vault LLC |
| IDTE2 | IDT Energy, Inc |
| IVGE2 | IVG Energy, LTD |
| MEDF2 | City of Medford |
| MISO | Midwest ISO |
| MSUI2 | Mizuho Securities USA Inc. |
| NASIA | Systems Integration Agreement |
| OHPA2 | Ohio Power Company (Auction) |
| PJM | PJM Interconnection |
| PJME2 | PJM Environmental Info Sys Inc |
| PREE2 | Tullett Prebon Americas Corp. |
| RBCC2 | RBC Capital Market, LLC |
| RICE2 | City of Rice Lake Utilities |
| SPOO2 | City of Spooner, Wisconsin |
| SPSR2 | Marex Spectron |
| TFS2 | TFS Energy |
| TFSF2 | TFS Energy Futures, LLC |
| TIMB2 | Timber Canyon |
| TOHI2 | Town of Hagerstown Indiana |
| TREM2 | Village of Trempealeau, Wisconsin |
| TVAM | TVA Bulk Power Trading |
| WAKE2 | City of Wakefield, Michigan |


| Pd Year | Unit | Ref | Trkg Cd | Account | Revenue | KWH Metered |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 2017117 |  | PJM | 4470006 | 1,544.08 | - - |
| 5 | 2017117 | PBAS | BANG2 | 4470006 | - | - |
| 5 | 2017117 | Pbas | BARR2 | 4470006 | - | - |
| 5 | 2017117 | PBAS | BLOO2 | 4470006 | - | - |
| 5 | 2017117 | PBAS | CADO2 | 4470006 | - | - |
| 5 | 2017117 | PBAS | CORN2 | 4470006 | - | - |
| 5 | 2017117 | PbAS | MEDF2 | 4470006 | - | - |
| 5 | 2017117 | PbAS | RICE2 | 4470006 | - | - |
| 5 | 2017117 | PBAS | SPOO2 | 4470006 | - | - |
| 5 | 2017117 | PBAS | TOHI2 | 4470006 | - | - |
| 5 | 2017117 | PbAS | TREM2 | 4470006 | - | - |
| 5 | 2017117 | PBAS | WAKE2 | 4470006 | - | - |
| 5 | 2017117 | PHRT | RBCC2 | 4470006 | (94.71) | - |
| 5 | 2017117 | PICT | CECA2 | 4470006 | - | - |
| 5 | 2017117 | PICT | DEOI2 | 4470006 | 58,274.14 | 1,242,000 |
| 5 | 2017117 | PICT | DPLG | 4470006 | 27,162.51 | 526,000 |
| 5 | 2017117 | PICT | MSUI2 | 4470006 | (575.19) | - |
| 5 | 2017117 | PICT | RBCC2 | 4470006 | (848.00) | - |
| 5 | 2017117 | PSHD | DLPM | 4470006 | 237,992.29 | 4,893,000 |
| 5 | 2017117 | PSHD | MSUI2 | 4470006 | (124.14) | - |
| 5 | 2017117 | PSHD | RBCC2 | 4470006 | (180.58) | - |
|  |  |  |  | 4470006 Total | 323,150.40 |  |
| 5 | 2017117 |  | MSUI2 | 4470010 | (671.84) | - |
| 5 | 2017117 |  | PJM | 4470010 | 5.03 | - |
| 5 | 2017117 |  | PJM | 4470010 | $(22,980.84)$ | $(528,059)$ |
| 5 | 2017117 |  | PJM | 4470010 | $(53,729.52)$ | $(1,249,089)$ |
| 5 | 2017117 |  | PJM | 4470010 | (231,170.03) | $(4,868,780)$ |
| 5 | 2017117 |  | PJM | 4470010 | 2.82 | - |
| 5 | 2017117 |  | PJM | 4470010 | (0.28) | - |
| 5 | 2017117 |  | PJM | 4470010 | (48.27) | - |
| 5 | 2017117 |  | PJM | 4470010 | (0.04) | - |
| 5 | 2017117 |  | PJM | 4470010 | (0.04) | - |
| 5 | 2017117 |  | PJM | 4470010 | (0.01) | - |
| 5 | 2017117 | PBAS | ADPR2 | 4470010 | $(2,059.33)$ | - |
| 5 | 2017117 | PbAS | TIMB2 | 4470010 | $(2,059.33)$ | - |
| 5 | 2017117 | PHRT | MSUI2 | 4470010 | (47.66) | - |
| 5 | 2017117 | PHRT | RBCC2 | 4470010 | (85.85) | - |
| 5 | 2017117 | PICT | MSUI2 | 4470010 | (253.54) | - |
| 5 | 2017117 | PICT | RBCC2 | 4470010 | (917.19) | - |
| 5 | 2017117 | PSHD | MSUI2 | 4470010 | (42.52) | - |
| 5 | 2017117 | PSHD | RBCC2 | 4470010 | (135.72) | - |
|  |  |  |  | 4470010 Total | $(314,194.16)$ |  |
| 5 | 2017117 | PHRT | MSUI2 | 4470082 | (413.24) | - |
| 5 | 2017117 | PHRT | RBCC2 | 4470082 | 2,627.38 | - |
| 5 | 2017117 | PICT | MSUI2 | 4470082 | $(12,078.03)$ | - |
| 5 | 2017117 | PICT | RBCC2 | 4470082 | 5,208.34 | - |
| 5 | 2017117 | PSHD | MSUI2 | 4470082 | 5,905.90 | - |
| 5 | 2017117 | PSHD | RBCC2 | 4470082 | $(20,690.11)$ | - |
|  |  |  |  | 4470082 Total | $(19,439.76)$ |  |
| 5 | 2017117 |  | PJM | 4470089 | 472,287.54 | - |
|  |  |  |  | 4470089 Total | 472,287.54 |  |
| 5 | 2017117 |  | PJM | 4470098 | 142.18 | - |
| 5 | 2017117 |  | PJM | 4470098 | $(4,684.63)$ | - |
|  |  |  |  | 4470098 Total | $(4,542.45)$ |  |
| 5 | 2017117 |  | PJM | 4470099 | 242,377.53 | - |
|  |  |  |  | 4470099 Total | 242,377.53 |  |
| 5 | 2017117 |  | PJM | 4470100 | 35,821.67 | - |
|  |  |  |  | 4470100 Total | 35,821.67 |  |
| 5 | 2017117 |  | PJM | 4470103 | 2,413,062.58 | 91,849,600 |
|  |  |  |  | 4470103 Total | 2,413,062.58 |  |
| 5 | 2017117 |  | PJM | 4470107 | (0.31) | - |
|  |  |  |  | 4470107 Total | (0.31) |  |
| 5 | 2017117 |  | PJM | 4470110 | 0.01 | - |
|  |  |  |  | 4470110 Total | 0.01 |  |
| 5 | 2017117 | PHHS | DLPM | 4470112 | - | - |
|  |  |  |  | 4470112 Total | - |  |
| 5 | 2017117 |  | PJM | 4470115 | (231.08) | - |
|  |  |  |  | 4470115 Total | (231.08) |  |
| 5 | 2017117 |  | PJM | 4470126 | 354.41 | - |
| 5 | 2017117 |  | PJM | 4470126 | 4,879.01 | - |
|  |  |  |  | 4470126 Total | 5,233.42 |  |
| 5 | 2017117 |  | PJM | 4470131 | (0.51) | - |
| 5 | 2017117 |  | PJM | 4470131 | 0.05 | - |
| 5 | 2017117 |  | PJM | 4470131 | 0.03 | - |
|  |  |  |  | 4470131 Total | (0.43) |  |
| 5 | 2017117 | PHHS | MSUI2 | 4470143 | 2,525.70 | - |
| 5 | 2017117 | PHHS | RBCC2 | 4470143 | $(4,290.59)$ | - |
|  |  |  |  | 4470143 Total | $(1,764.89)$ |  |
| 5 | 2017117 | Physical | NASIA | 4470175 | $(416,254.16)$ | - |
| 5 | 2017117 | Trading | NASIA | 4470175 | 5,916.79 | - |
|  |  |  |  | 4470175 Total | (410,337.37) |  |
| 5 | 2017117 | Physical | NASIA | 4470176 | 416,254.16 | - |
| 5 | 2017117 | Trading | NASIA | 4470176 | $(5,916.79)$ | - |


|  |  | 4470176 Total | 410,337.37 |
| :---: | :---: | :---: | :---: |
| 2017117 | PJM | 4470206 | 13,239.41 |
|  |  | 4470206 Total | 13,239.41 |
| 2017117 | PJM | 4470209 | $(2,034.17)$ |
| 2017117 | PJM | 4470209 | $(54,458.51)$ |
|  |  | 4470209 Total | $(56,492.68)$ |
| 2017117 | PJM | 4470214 | - |
| 2017117 | PJM | 4470214 | 3.87 |
|  |  | 4470214 Total | 3.87 |
| 2017117 | PJM | 4470215 | 605.93 |
|  |  | 4470215 Total | 605.93 |
| 2017117 | PJM | 4470220 | - |
| 2017117 | PJM | 4470220 | 6,504.43 |
|  |  | 4470220 Total | 6,504.43 |
| 2017117 | PJM | 4470221 | - |
| 2017117 | PJM | 4470221 | (291.30) |
|  |  | 4470221 Total | (291.30) |
| 2017117 | PJM | 4470222 | - |
|  |  | 4470222 Total | - |
| 2017117 | PJM | 5550039 | $(1,358.90)$ |
|  |  | 5550039 Total | $(1,358.90)$ |
| 2017110 | PJME2 | 5570007 | (22.23) |
|  |  | 5570007 Total | (22.23) |
| 2017117 | PJM | 5614000 | - |
| 2017117 | PJM | 5614000 | (0.05) |
| 2017117 | PJM | 5614000 | $(12,791.92)$ |
|  |  | 5614000 Total | $(12,791.97)$ |
| 2017180 | PJM | 5614008 | - |
|  |  | 5614008 Total | - |
| 2017117 | PJM | 5618000 | - |
| 2017117 | PJM | 5618000 | 1.23 |
| 2017117 | PJM | 5618000 | $(4,298.40)$ |
| 2017117 | PJM | 5618000 | (3.51) |
|  |  | 5618000 Total | $(4,300.68)$ |
| 2017117 | PJM | 5757000 | - |
| 2017117 | PJM | 5757000 | (10.20) |
| 2017117 | PJM | 5757000 | $(12,507.25)$ |
| 2017117 | PJM | 5757000 | (172.08) |
|  |  | 5757000 Total | $(12,689.53)$ |
|  |  | Grand Total | 3,084,166.42 |



|  |  |  |  |  |
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|  |  |  |  |  | Attachment 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 2017117 | PJM | 5618000 | (8.44) | Page 10 of 16 |
| 8 | 2017117 | PJM | 5618000 | $(7,547.91)$ | Page 10 of |
| 8 | 2017117 | PJM | 5618000 | (11.15) | - |
|  |  |  | 5618000 Total | $(7,567.50)$ |  |
| 8 | 2017117 | PJM | 5757000 | - | - |
| 8 | 2017117 | PJM | 5757000 | (788.89) | - |
| 8 | 2017117 | PJM | 5757000 | $(24,386.70)$ | - |
| 8 | 2017117 | PJM | 5757000 | (267.47) | - |
|  |  |  | 5757000 Total | $(25,443.06)$ |  |




|  |  |  |  |  | Item No. 13 <br> Attachment 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | 2017117 | PJM | 5618000 | - | Page 13 of 16 |
| 9 | 2017117 | PJM | 5618000 | (7.47) | - |
| 9 | 2017117 | PJM | 5618000 | $(4,799.82)$ | - |
| 9 | 2017117 | PJM | 5618000 | (8.09) | - |
|  |  |  | 5618000 Total | $(4,815.38)$ |  |
| 9 | 2017117 | PJM | 5757000 | - | - |
| 9 | 2017117 | PJM | 5757000 | (665.64) | - |
| 9 | 2017117 | PJM | 5757000 | $(15,075.84)$ | - |
| 9 | 2017117 | PJM | 5757000 | (261.54) | - |
|  |  |  | 5757000 Total | $(16,003.02)$ |  |



|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 |  |  | NASIA | 4470089 | - | Page 15 of 16 |
| 10 | 2017117 |  | PJM | 4470089 | 2,176,271.83 |  |
|  |  |  |  | 4470089 Total | 2,176,271.83 |  |
| 10 | 2017117 |  | NASIA | 4470098 | - | - |
| 10 | 2017117 |  | PJM | 4470098 | 221.07 | - |
|  | 2017117 |  | РJM | 4470098 | $(15,738.88)$ | - |
| 10 |  |  |  | 4470098 Total | $(15,517.81)$ |  |
| 10 | 2017117 |  | NASIA | 4470099 | - | - |
| 10 | 2017117 |  | PJM | 4470099 | 81,717.24 | - |
| 10 | 2017117 |  | PJM | 4470099 | 62,647.06 | - |
|  |  |  |  | 4470099 Total | 144,364.30 |  |
| 10 | 2017117 |  | NASIA | 4470100 | - | - |
| 10 | 2017117 |  | PJM | 4470100 | 11,714.68 | - |
|  |  |  |  | 4470100 Total | 11,714.68 |  |
| 10 | 2017117 |  | NASIA | 4470103 | - | - |
| 10 | 2017117 |  | PJM | 4470103 | 6,825,476.51 | 285,672,397 |
|  |  |  |  | 4470103 Total | 6,825,476.51 |  |
| 10 | 2017117 |  | PJM | 4470107 | (0.31) | - |
|  |  |  |  | 4470107 Total | (0.31) |  |
| 10 | 2017117 |  | PJM | 4470110 | (0.03) | - |
|  |  |  |  | 4470110 Total | (0.03) |  |
| 10 | 2017117 |  | NASIA | 4470112 | - | - |
| 10 | 2017117 | PHHS | DPLG | 4470112 | 115,486.81 | 2,245,000 |
|  |  |  |  | 4470112 Total | 115,486.81 |  |
| 10 | 2017117 |  | NASIA | 4470115 | - | - |
| 10 | 2017117 |  | PJM | 4470115 | (6,480.43) | - |
|  |  |  |  | 4470115 Total | (6,480.43) |  |
| 10 | 2017117 |  | PJM | 4470126 | 75,927.87 | - |
| 10 | 2017117 |  | PJM | 4470126 | 152,124.46 | - |
|  |  |  |  | 4470126 Total | 228,052.33 |  |
| 10 | 2017117 |  | PJM | 4470131 | 131.32 | - |
| 10 | 2017117 |  | PJM | 4470131 | (15.24) | - |
| 10 | 2017117 |  | PJM | 4470131 | (110,870.21) | $(2,308,848)$ |
| 10 | 2017117 |  | PJM | 4470131 | $(349,392.95)$ | $(7,122,861)$ |
|  |  |  |  | 4470131 Total | (460,147.08) |  |
| 10 | 2017117 | PHHS | AMRX2 | 4470143 | (110.99) | - |
| 10 | 2017117 | PHHS | APBE2 | 4470143 | (250.44) | - |
| 10 | 2017117 | PHHS | EVOF2 | 4470143 | - | - |
| 10 | 2017117 | PHHS | ICET2 | 4470143 | (45.59) | - |
| 10 | 2017117 | PHHS | IVGE2 | 4470143 | (143.43) | - |
| 10 | 2017117 | PHHS | MSU12 | 4470143 | $(42,526.31)$ | - |
| 10 | 2017117 | PHHS | PREE2 | 4470143 | - | - |
| 10 | 2017117 | PHHS | RBCC2 | 4470143 | 262,678.21 | - |
|  |  |  |  | 4470143 Total | 219,601.45 |  |
| 10 | 2017117 | Physical | NASIA | 4470175 | 877,934.73 | - |
| 10 | 2017117 | Trading | NASIA | 4470175 | $(24,138.48)$ | - |
|  |  |  |  | 4470175 Total | 853,796.25 |  |
| 10 | 2017117 | Physical | NASIA | 4470176 | (877,934.73) | - |
| 10 | 2017117 | Trading | NASIA | 4470176 | 24,138.48 | - |
|  |  |  |  | 4470176 Total | (853,796.25) |  |
| 10 | 2017117 |  | PJM | 4470206 | 31,279.68 | - |
|  |  |  |  | 4470206 Total | 31,279.68 |  |
| 10 | 20171172017117 |  | PJM | 4470209 | $(76,413.14)$ | - |
| 10 |  |  | PJM | 4470209 | $(173,352.10)$ | - |
|  |  |  |  | 4470209 Total | (249,765.24) |  |
| 10 | 2017117 |  | PJM | 4470214 | 1,984.35 | - |
|  |  |  |  | 4470214 Total | 1,984.35 |  |
| 10 | 2017117 |  | PJM | 4470215 | (876.13) | - |
|  |  |  |  | 4470215 Total | (876.13) |  |
| 1010 | 2017117 |  | PJM | 4470220 | 10,575.01 | - |
|  |  |  |  | 4470220 Total | 10,575.01 |  |
|  | 2017117 |  | PJM | 4470221 | 123.49 | - |
|  |  |  |  | 4470221 Total | 123.49 |  |
| 10 | 2017117 |  | PJM | 5550039 | $(4,546.15)$ | - |
|  |  |  |  | 5550039 Total | $(4,546.15)$ |  |
| 10 | 2017110 |  | DTET | 5570007 | $(6,570.69)$ | $(1,961)$ |
| 10 | 2017110 |  | EVOL2 | 5570007 | (15.30) | (196) |
| 10 | 2017110 |  | PJME2 | 5570007 | (17.21) | $(4,302)$ |
| 10 | 2017110 |  | PREE2 | 5570007 | (131.41) | $(1,961)$ |
| 10101010 | 2017110 |  | TFS2 | 5570007 | (102.97) | $(1,373)$ |
|  |  |  |  | 5570007 Total | (6,837.58) |  |
|  | 2017117 |  | PJM | 5614000 | - | - |
|  | 2017117 |  | PJM | 5614000 | (111.45) | - |
|  | 2017117 |  | PJM | 5614000 | $(24,674.03)$ | - |


|  |  |  | 5614000 Total | (24,785.48) | Attachment 1 Page 16 of 16 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 2017180 | PJM | 5614008 | - | Page 16 |
|  |  |  | 5614008 Total | - |  |
| 10 | 2017117 | PJM | 5618000 | - | - |
| 10 | 2017117 | PJM | 5618000 | (21.46) | - |
| 10 | 2017117 | PJM | 5618000 | $(8,971.01)$ | - |
| 10 | 2017117 | PJM | 5618000 | (5.57) | - |
|  |  |  | 5618000 Total | $(8,998.04)$ |  |
| 10 | 2017117 | PJM | 5757000 | - | - |
| 10 | 2017117 | PJM | 5757000 | $(1,796.18)$ | - |
| 10 | 2017117 | PJM | 5757000 | $(27,805.43)$ | - |
| 10 | 2017117 | PJM | 5757000 | (273.05) | - |
|  |  |  | 5757000 Total | $(29,874.66)$ |  |
|  |  |  | Grand Total | 9,250,250.46 |  |

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests <br> Dated February 16, 2018

## DATA REQUEST

1-01
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. Beginning on June 1, 2007, based on FERC Order EL06-055, PJM modified the Locational Marginal Pricing (LMP) approach to calculate transmission line loss costs on a marginal basis. The LMP calculation reflects the full marginal cost of serving an increment of load at each bus from each resource associated with an eligible energy offer. The LMP price will be the sum of three separate components: System Energy Price, Congestion Price and Loss Price. Therefore, each spot market energy customer pays an energy price that includes the full marginal cost of energy for delivering an increment of energy to the purchaser's location. Market buyers are assessed for their incremental impact on transmission line losses resulting from total load scheduled to be served from the PJM Spot Energy Market in the day-ahead energy market at the same day-ahead loss price applicable at the relevant load bus.

Market sellers are assessed for their incremental impact on transmission line losses resulting from energy scheduled for delivery in the day-ahead market at the day-ahead loss prices applicable to the relevant resource bus.

Transactions are balanced in the real-time market using the same calculation, but are based on deviation at each bus from the day-ahead using the real time loss price.
b. Kentucky Power conducts intersystem sales through its participation in the PJM wholesale markets.

Witness: Stephen L. Sharp

## DATA REQUEST

1-015 Provide a list, in chronological order, showing by unit, any scheduled, actual, and forced outages for the period under review.

## RESPONSE

Please refer to KPCO_R_KPSC_1_15_Attachment1.pdf for the requested information.

Witness: David L. Mell
Russel W. Gwin

| Kentucky Power Company <br> Fuel Adjustment Clause 2018-00018 <br> Generating Unit Plant Outages <br> May 1, 2017 - October 31, 2017 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unit | Event Type | Start | End | Duration (Hrs) | Event Description |
| Big Sandy 1 | PO | 4/21/17 11:00 PM | 5/27/17 11:00 AM | 635.0 | Boiler, turbine, other scheduled repairs |
| Big Sandy 1 | MO | 6/19/17 11:32 PM | 6/23/17 2:50 PM | 87.3 | Boiler feedpump turbine oil system repairs, east and west transformer repairs |
| Big Sandy 1 | FO | 8/23/17 1:15 PM | 8/24/17 7:45 AM | 18.5 | Steam seal regulator valve repair |
| Mitchell 1 | FO | 6/18/17 8:10 PM | 6/19/17 2:00 AM | 5.8 | stator water low flow problem |
| Mitchell 1 | FO | 6/19/17 2:00 AM | 6/19/17 9:34 PM | 19.6 | Fiber Optic System alarm |
| Mitchell 1 | FO | 9/6/17 1:03 PM | 9/6/17 2:19 PM | 1.3 | Low Excess Air |
| Mitchell 1 | MO | 9/7/17 6:00 AM | 9/14/17 6:50 PM | 180.8 | Boiler i/r, Aux. steam header stop valve repair, ID fan lube oil pump $\mathrm{i} / \mathrm{r}, \# 11$ bearing oil leak, expansion joint repair, \#16 pulverizer i/r, \#3 governor valve i/r, economizer hopper clinkers. |
| Mitchell 1 | FO | 9/25/17 8:08 AM | 10/2/17 11:45 PM | 183.6 | Main Turbine Bearing \#11 Temp. |
| Mitchell 1 | FO | 10/13/17 1:35 AM | 10/13/17 10:33 AM | 9.0 | ID fan swings, Furnace Pressure trip |
| Mitchell 1 | FO | 10/25/17 1:39 PM | 10/28/17 2:50 AM | 61.2 | Controlled shutdownSteam lead leak in 2nd Reheat |
| Mitchell 2 | MO | 4/14/17 11:48 PM | 5/13/17 8:12 AM | 296.2 | To i/r suspected leak located in the deaerator, Economizer partition plate i/r (Critical Path), repair 7A High pressure heater head, Precipitator i/r, \#24 Pulverizer Rebuild and yoke replacement and \#22 Air heater i/r. Possibility of a one week extension exists based on Economizer inspection results |
| Mitchell 2 | FO | 5/23/17 4:34 PM | 5/25/17 3:46 AM | 35.2 | Generator Field Ground |
| Mitchell 2 | MO | 6/5/17 11:35 PM | 6/9/17 9:00 PM | 93.4 | $\mathrm{i} / \mathrm{r}$ aux condenser due to back pressure (cleaning), $\mathrm{i} / \mathrm{r}$ leak on common feed pipping to vent stack. i/r coal leak on \# 26 C burner line. i/r small leak on the EHC \#1 control valve to the main turbine, $\mathrm{i} / \mathrm{r}$ boiler. |

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests <br> Dated February 16, 2018

## DATA REQUEST

1-016
For the period under review, provide the monthly capacity factor at which each generating unit operated.

## RESPONSE

Please refer to KPCO_R_KPSC_1_16_Attachment1.pdf for the requested information. The capacity factors reported on KPCO_R_KPSC_1_16_Attachment_1_.pdf for Big Sandy Unit 1 (53.32\%) and Mitchell Unit 2 ( $75.10 \%$ ) for October 2017 vary from the capacity factors for the two units reported in the corresponding back-up filing ( $48.80 \%$ and $71.00 \%$ respectively).

Subsequent to the submission of the back-up filing net generation for the two units for the period was adjusted. The adjustment resulted in a corresponding modification of the capacity factor for the two units.

The adjustment did not have an effect on the amount recovered through the Fuel Adjustment Clause.

Witness: David L. Mell
Russel W. Gwin
Stephen L. Sharp

|  | KPCo Generating Unit <br> Capacity Factor (\%) <br> May 2017 - October 2017 |  |  |
| :---: | :---: | :---: | ---: |
| Month | Big Sandy 1 | Mitchell 1 | Mitchell 2 |
| May | 1.39 | 77.76 | 39.72 |
| June | 19.97 | 66.00 | 61.95 |
| July | 38.26 | 71.45 | 77.89 |
| August | 20.69 | 67.31 | 74.03 |
| September | 24.77 | 36.79 | 71.45 |
| October | 52.32 | 51.22 | 75.10 |

KPSC Case No. 2018-00018

Commission Staff's First Set of Data Requests<br>Dated February 16, 2018

## DATA REQUEST

1-017
a. For the period under review, explain if Kentucky Power made any changes to its-maintenance and operation practices, or completed any specific generation efficiency improvements that affect fuel usage at Kentucky Power's generation facilities.
b. Describe the impact of these changes on Kentucky Power's fuel usage.

## RESPONSE

a). Kentucky Power did not make any changes to its maintenance and operations practices during the period under review. In May 2017 efficiency improvements were implemented at Mitchell Unit 1. The improvements included work on the second reheat turbine, low pressure turbine, and the main condenser. The improvements reduced the unit heat rate (increased efficiency) by a total of $100 \mathrm{Btu} / \mathrm{kWh}$. There were no generation efficiency improvements at Big Sandy Unit 1 or Mitchell Unit 2 during the period under review.
b). The efficiency improvements at Mitchell Unit1 reduced the amount of fuel burned per kWh.

Witness: David L. Mell
Russel W. Gwin

## DATA REQUEST

1-018
State whether Kentucky Power is aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period under review.

## RESPONSE

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

Witness: Clinton M. Stutler
Amy E. Jeffries

## DATA REQUEST

1-019
State whether Kentucky Power is aware of any violations of 807 KAR 5:056 that occurred prior to or during the period under review.

## RESPONSE

Kentucky Power is not aware of any violations of 807 KAR 5:056 not previously disclosed that occurred prior to or during the period under review.

Witness: Stephen L. Sharp

KPSC Case No. 2018-00018
Commission Staff's First Set of Data Requests
Dated February 16, 2018

## DATA REQUEST

1-020
State whether all fuel 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

All fuel contracts related to commodity and/or transportation have been filed with the Commission.

Witness: Stephen L. Sharp

KPSC Case No. 2018-00018

## Commission Staff's First Set of Data Requests

Dated February 16, 2018

## DATA REQUEST

1-021
Provide Kentucky Power's calculations and supporting data for determining the amount of power purchases in excess of the "peaking unit equivalent" that were excluded from recovery through the FAC for each month of the review period May 1, 2017 through October 31, 2017.

## RESPONSE

Please refer to KPCO_R_KPSC_1_21_Attachment1_Confidential.xls for the requested information. Confidential treatment is being sought for portions of this attachment.

Witness: Stephen L. Sharp
Amy E. Jeffries

## VERIFICATION

The undersigned, Clinton M. Stutler, being duly sworn, deposes and says he is the Fuel Buyer Principal for American Electric Power, that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.


Clinton M. Stutler

| State of Ohio | ) Case No. 2018-00018 |
| :--- | :--- | :--- |
| County of Franklin | ) |

Subscribed and sworn before me, a Notary Public, by Clinton M. Stutler this ISt day of March, 2018.


My Commission Expires $\qquad$ Jennarry 4, 20019


## VERIFICATION

The undersigned, Stephen L. Sharp, being duly sworn, deposes and says he is a Regulatory Consultant with Kentucky Power, that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.


Commonwealth of Kentucky )
) Case No. 2018-00018
County of Franklin
)

Subscribed and sworn before me, a Notary Public, by Stephen L. Sharp this
 day of March, 2018


My Commission Expires JuN $\mathcal{J} 16,2021$
\# 581644

## VERIFICATION

The undersigned, David L. Nell, being duly sworn, deposes and says he is a Energy Production Superintendent - Big Sandy for Kentucky Power Company, that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.


David L. Mell
Commonwealth of Kentucky )
) Case No. 2018-00018
County of Boyd )

Subscribed and sworn before me, a Notary Public, by David L. Nell this
$\qquad$ day of March, 2018.


Notary Public
My Commission Expires $03-21-2021$

## VERIFICATION

The undersigned, Amy E. Jeffries, being duly sworn, deposes and says she is the Natural Gas Manager for American Electric Power, that she has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.


State of Ohio
)
) Case No. 2018-00018
County of Franklin
)

Subscribed and sworn before me, a Notary Public, by Amy E. Jeffries this St day of March, 2018.


My Commission Expires $\qquad$


## VERIFICATION

The undersigned, Russel W. Gwin, being duly sworn, deposes and says he is a Maintenance Superintendent Sr. - Mitchell for Kentucky Power Company, that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.


State of West Virginia )
County of Marshall )
Case No. 2018-00018

Subscribed and sworn before me, a*Notarŷ Public, by Russel W. Guin this day of March, 2018.


My Commission Expires $\qquad$ $12-11-23$


