

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF: AN EXAMINATION OF THE :
APPLICATION OF THE FUEL ADJUSTMENT CLAUSE :
OF KENTUCKY POWER COMPANY FROM : **Case No. 2014-00450**
NOVEMBER 1, 2012 THROUGH OCTOBER 31, 2014 :
:

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'s
FIRST SET OF DATA REQUESTS
TO
KENTUCKY POWER COMPANY

Michael L. Kurtz, Esq.
Kurt J. Boehm, Esq.
Jody Kyler Cohn, Esq.
BOEHM, KURTZ & LOWRY
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202
Ph: 513.421.2255 fax: 513.421.2764
mkurtz@BKLlawfirm.com
kboehm@BKLlawfirm.com
jkylercohn@BKLlawfirm.com

**COUNSEL FOR KENTUCKY INDUSTRIAL
UTILITY CUSTOMERS, INC.**

Dated: March 6, 2015

DEFINITIONS

1. “Document(s)” is used in its customary broad sense and includes electronic mail and all written, typed, printed, electronic, computerized, recorded or graphic statements, memoranda, reports, communications or other matter, however produced or reproduced, and whether or not now in existence, or in your possession.
2. “Study” means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, a particular issue or situation, in whatever detail, whether or not the consideration of the issue or situation is in a preliminary stage, and whether or not the consideration was discontinued prior to completion whether preliminary or final.
3. If any document requested herein was at one time in existence, but has been lost, discarded or destroyed, identify such document as completely as possible, including the type of document, its date, the date or approximate date it was lost, discarded or destroyed, the identity of the person (s) who last had possession of the document and the identity of all persons having knowledge of the contents thereof.
4. “Person” means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
5. A request to identify a natural person means to state his or her full name and residence address, his or her present last known position and business affiliation at the time in question.
6. A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), number of code number thereof or other means of identifying it, and its present location and custodian. If any such document was, but is no longer in the Company’s possession or subject to its control, state what disposition was made of it.
7. A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.
8. “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
9. “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.
10. Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise.
11. “You” or “your” means the person whose filed testimony is the subject of these interrogatories and, to the extent relevant and necessary to provide full and complete answers to any request, “you” or “your” may be deemed to include any person with information relevant to any interrogatory who is or was employed by or otherwise associated with the witness or who assisted, in any way, in the preparation of the witness’ testimony.
12. “Kentucky Power” means Kentucky Power Company and/or any of their officers, directors, employees or agents who may have knowledge of the particular matter addressed.

INSTRUCTIONS

1. If any matter is evidenced by, referenced to, reflected by, represented by, or recorded in any document, please identify and produce for discovery and inspection each such document.
2. These interrogatories are continuing in nature, and information which the responding party later becomes aware of, or has access to, and which is responsive to any request is to be made available to Kentucky Industrial Utility Customers. Any studies, documents, or other subject matter not yet completed that will be relied upon during the course of this case should be so identified and provided as soon as they are completed. The Respondent is obliged to change, supplement and correct all answers to interrogatories to conform to available information, including such information as it first becomes available to the Respondent after the answers hereto are served.
3. Unless otherwise expressly provided, each interrogatory should be construed independently and not with reference to any other interrogatory herein for purpose of limitation.
4. The answers provided should first restate the question asked and also identify the person(s) supplying the information.
5. Please answer each designated part of each information request separately. If you do not have complete information with respect to any interrogatory, so state and give as much information as you do have with respect to the matter inquired about, and identify each person whom you believe may have additional information with respect thereto.
6. In the case of multiple witnesses, each interrogatory should be considered to apply to each witness who will testify to the information requested. Where copies of testimony, transcripts or depositions are requested, each witness should respond individually to the information request.
7. The interrogatories are to be answered under oath by the witness(es) responsible for the answer.
8. Responses to requests for revenue, expense and rate base data should provide data on the basis of Total Company as well as Intrastate data, unless otherwise requested.

**KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'s
FIRST SET OF DATA REQUESTS TO
KENTUCKY POWER COMPANY
Docket No. 2014-00450**

Q.1-1 Kelly Pearce's testimony at page 8, lines 5 through 8 references Exhibit KDP-1, which discusses the Company's calculation of \$6.9 million in net benefits from owning Mitchell. Please provide an electronic copy of KDP-1, and the supporting workpapers electronically with all formulas intact supporting the calculation. Also, provide the results found in Exhibit KDP-1, but show the results on a month-by-month basis.

Q.1-2 With regard to Exhibit KDP-1, please provide a version of this table:

- a. Including only the allocation of fuel cost to OSS. In other words, determine the benefits of Mitchell to OSS. However, instead of summing the results by period, provide the results on a month-by-month basis. Please provide this electronically in spreadsheet format with all formulas intact.
- b. Provide these results in the same format as Exhibit KDP-5 from Pearce's Rebuttal Testimony in Case No. 2014-00225, including all columns, and resulting in a \$/MWH calculation. Please provide this electronically in spreadsheet format with all formulas intact.
- c. Please provide the updated analysis in the same form as was provided in Post-Hearing Request 7, attachments 1 and 2 supporting Pearce rebuttal exhibit KDP-5 (Case No. 2014-00225). Please provide this electronically in spreadsheet format with all formulas intact.

Q.1-3 With regard to Kelly Pearce's testimony at page 8, lines 10 through 17.

- a. Please provide the Power Tracker documentation manual, and if a signed confidentiality agreement is necessary, KIUC consultants would be willing to sign one. Also, if the Company has any other written documentation explaining what Power Tracker is and what it is normally used for, please provide such documentation.
- b. Please provide a step-by-step explanation of how the study was performed using Power Tracker. Please be sure to discuss how Power Tracker assigns costs to off-system sales.
- c. When Mitchell was removed as a resource, did Power Tracker re-compute generation by unit, off-system sales, and purchases to account for the fact that Mitchell had been removed? Please explain.
- d. Did Power Tracker account for commitment and operating reserve changes that would have occurred if Mitchell had been removed? If so, please explain how these items were accounted for in the Company's analysis. If not, please explain why the Company believes its analysis is reasonable without accounting for these items.

- e. Please provide the Power Tracker model, and provide all input data that was entered into the model, and all output results that were produced by the model. If the Power Tracker model cannot be supplied, please provide an example of the calculations that were performed for one hour, and still provide all input and output results. Please pick an hour in which the sum of the Company's minimum segments with Mitchell exceeded the Company's native load. Please provide this information electronically, with all formulas intact.
- Q.1-4 With regard to Exhibit KDP-1, please explain why in the Company's analysis, owning Mitchell results in a cost during the May through October period, but results in a benefit during the January through April and November/December period.
- Q.1-5 Assume that Kentucky Power were interested in estimating the projected energy benefits associated with adding a low operating cost generating unit to its capacity mix using a production cost model that dispatched the generating units economically.
- a. Would it be possible, at all, for the Company's production costs to increase with the addition of the generating unit? If so, please identify all assumptions that would have to be made in order for production costs to increase in this hypothetical.
 - b. If in part a, the Company was able to identify assumptions that could account for production costs increasing with the addition of a generating unit, please state if those were the same circumstances that caused fuel costs to increase to native load when Mitchell was added in the Company's analysis during the months of May through October. Please explain fully.
 - c. If not, please explain fully what caused fuel costs to increase to native load when Mitchell was added in the Company's analysis during the months of May through October.
- Q.1-6 In regards to John Rogness' testimony please provide the following electronically in spreadsheet format:
- a. The table provided on page 4, line 2, and all supporting workpapers used to derive these values with all formulas intact.
 - b. Table 2 provided on Page 5, and supporting workpapers used to derive these values with all formulas intact.
 - c. Table 3 provided on Page 7, and all supporting workpapers used to derive these values with all formulas intact.
- Q.1-7 In regards to Charles West's testimony, please provide the following electronically in spreadsheet format:
- a. The table provided on page 5, and all supporting workpapers used to derive these values with all formulas intact.

- b. The table provided on page 5, line 3 and all supporting workpapers used to derive these values with all formulas intact
- Q.1-8 Please provide a calculation of reserve margin by month during the review period beginning November 2012 and ending October 2014, please provide the calculations electronically with formulas intact, and include the buildup of installed capacity (by unit), and the buildup of peak demand.
- Q.1-9 Please provide the Off-System Sales revenue, fuel costs allocated to OSS, and OSS profits earned by Kentucky Power monthly since November 2012; please provide this electronically in spreadsheet format.
- Q.1-10 Please provide the Net Income Earnings to Common Shareholders monthly since November 2012; please provide this electronically in spreadsheet format.
- Q.1-11 Please refer to the Company data response PSC 1-29 parts (d) and (h) in Case Number 2014-00225. Please provide the following data, electronically in spreadsheet format, pertaining to "no load costs" in the same format as was provided in response to PSC 1-29 in Case Number 2014-00225.
- a. By month and generating unit, provide the amount of "no load costs" that have been allocated to native-load customers for the period beginning November 2012 and ending October 2014.
 - b. For each month during the period beginning November 2012 and ending October 2014, and for each generating unit (Big Sandy units 1 and 2, Rockport units 1 and 2, and Mitchell units 1 and 2), provide the following:
 - (1) The total MWh generated;
 - (2) The dollar amount of fuel costs allocated to native-load customers;
 - (3) The amount of MWh allocated to the native-load customers;
 - (4) The dollar amount of fuel costs allocated to off-system sales;
 - (5) The amount of MWh allocated to off-system sales;
 - (6) The percent of each unit's MWh allocated to native-load customers;
 - (7) and Each unit's "no load costs".
 - c. For each month during the period beginning November 2012 and ending October 2014, for purchases, provide the following:
 - (1) The total MWh purchased;
 - (2) The dollar amount of purchase cost allocated to native-load customers;
 - (3) The amount of MWh allocated to the native-load customers;
 - (4) The dollar amount of purchase cost allocated to off-system sales;

(5) The amount of MWh allocated to off-system sales.

Q.1-12 Please provide the average fuel cost incurred, average fuel cost allocated to native load, and average fuel cost allocated to OSS, monthly for the review period beginning November 2012 and ending October 2014. Please provide this electronically in spreadsheet format, with formulas intact.

Q.1-13 Please refer to the Company data response PSC 2-4 in Case Number 2014-00225. Please provide the following data, electronically in spreadsheet format for the period beginning November 2012 and ending October 2014:

- a. Unit Minimums and maximums for each of Kentucky Power's generation units including Rockport
- b. Average dispatch order of each unit for each month

Q.1-14 Please refer to the Company data response KIUC 1-1 in Case Number 2014-00225. With respect to Kentucky Power's sales to its two FERC all-requirements wholesale customers (City of Olive Hill and City of Vanceburg), please provide the following information:

- a. Please provide the fuel adjustment billings to Olive Hill and Vanceburg for the months beginning November 2012 and ending October of 2014. Please provide this electronically, with all formulas attached.
- b. Please provide the fuel adjustment clause filings with FERC used to determine the fuel adjustment billings to Olive Hill and Vanceburg for each month November 2012 through October 2014
- c. For each month November 2012 through October 2014, please indicate whether the FAC rate for retail load in Kentucky was more, less or the same as the FAC rate for Olive Hill and Vanceburg. Please provide the analysis used to support this answer electronically, with all formulas attached. Reconcile and explain all differences between the FAC rate for retail load and the FAC rate for Olive Hill and Vanceburg.

Q.1-15 Please refer to the Company data response KIUC 1-5 in Case Number 2014-00225. With respect to the margins from off-system sales earned by Kentucky Power for each month over the entire review period, beginning November 2012 and ending October 2014, please provide the following

- a. How many MWh were sold off-system?
- b. How much revenue was received?
- c. What was the total fuel cost?
- d. What was the fuel cost per MWh?
- e. What was the total variable cost for each MWh sold?

f. What was Kentucky Power's total margin from off-system sales for each month?

Provide all after the fact (cost reconstruction settlement) analyses and calculations performed to quantify these margins, including the calculations of the credits to fuel and purchased power expense reflected in the FAC. Please provide this electronically with all formulas intact in the same format it was provided Case Number 2014-00225 response KIUC 1-5.

- Q.1-16 Please refer to the Company data response KIUC 1-7 and 2-7 in Case Number 2014-00225. Please provide the allocation of no-load costs between Internal Load and FERC Wholesale customers for the review period beginning November 2012 and ending October 2014, electronically in spreadsheet format. Please provide this hourly by unit.
- Q.1-17 Please refer to the Company data response KIUC 1-8 in Case Number 2014-00225. For each month of the period beginning November 2012 and ending October 2014, please provide the peak demand and total kWh usage for: 1) Kentucky native load; 2) the two FERC all-requirements wholesale customers and 3) off-system sales electronically in spreadsheet format.
- Q.1-18 Please refer to the Company data response KIUC 1-9 in Case Number 2014-00225. Please provide a monthly billing summary of sales to all electric utilities during the period beginning November 2012 and ending October 2014. Indicate if the sale was firm or non-firm. Please provide the information electronically in spreadsheet format.
- Q.1-19 Please refer to the Company data response KIUC 1-10 in Case Number 2014-00225. Please provide a monthly billing summary of purchases from all electric utilities during the review period beginning November 2012 and ending October 2014. Indicate if the purchase was firm or non-firm. Please provide the information electronically in spreadsheet format.
- Q.1-20 Please refer to the Company data response KIUC 1-11 in Case Number 2014-00225. Please provide electronically in spreadsheet format, the hourly load requirements (sales + losses), and also separately, hourly sales data for the period beginning November 2012 and ending October 2014, as used in the post period cost reconstruction settlement process for:
- a. Kentucky Power retail load requirements by hour.
 - b. City of Olive Hill load requirements by hour.
 - c. City of Vanceburg requirements by hour.
- Q.1-21 Please refer to the Company data response KIUC 1-12 in Case Number 2014-00225. For Big Sandy 1 & 2, Rockport 1 & 2, Mitchell 1 & 2, during the period beginning November 2012 and ending October 2014, provide the following, electronically in spreadsheet

format, that was used in the post-period cost reconstruction settlement process and used to develop fuel adjustment costs.

- a. Minimum operating capacity. Provide revised values if and when any changes occurred during the specified period.
- b. Maximum operating capacity. Provide revised values if and when any changes occurred during the specified period.
- c. Unit heat rate curve coefficients (see also Kentucky Power Response to Staff 1-29 (a) in Case Number 2014-00225). Provide revised values if and when any changes occurred during the specified period.
- d. Unit Fuel cost (\$). Provide hourly values.
- e. Unit O&M cost (\$) Provide hourly values.
- f. Unit Emissions costs (\$). Provide this by emissions type and provide hourly values.
- g. Unit environmental consumable costs (\$) (see also Kentucky Power Response to Staff 1-29 (f) in Case Number 2014-00225) Provide this by type of environmental consumable cost and provide hourly values.
- h. Any other type of cost not addressed in parts a through g above (\$). Provide this by type of cost and provide hourly values.
- i. Unit generation by unit by hour during the specified period (MWH).
- j. Unit MBTU consumption by unit by hour during the specified period (MBTU).

Q.1-22 Please refer to the Company data response KIUC 1-13 in Case Number 2014-00225. Please provide the same hourly sales information for sales made to all electric utilities for the review period beginning November 2012 and ending October 2014. For each hour and for each sale, identify the hour, name of the party energy was sold to, sale energy for the hour (MW), sale rate for the hour (\$/MWH), and sale dollars for the hour. Provide this information electronically in spreadsheet format.

Q.1-23 Please refer to the Company data response KIUC 1-14 and 2-14 in Case Number 2014-00225. Please provide the same hourly purchase information for purchases made from all electric utilities for the period beginning November 2012 and ending October 2014. For each hour and for each purchase, identify the hour, name of the party energy was purchased from, purchase energy for the hour (MW), purchase rate for the hour (\$/MWH), and purchase dollars for the hour. Provide this information electronically in spreadsheet format.

Q.1-24 Please refer to the Company data response KIUC 1-20 in Case Number 2014-00225. Please provide the analyses and all workpapers, electronically with all formulas attached, used to perform the Company's cost reconstruction settlement process for the review period beginning November 2012 and ending October 2014

Q.1-25 Please refer to the Company data response KIUC 2-11 in Case Number 2014-00225. Please provide the same data for all hours in the period beginning November 2012 and ending October 2014, for all units. The following data items should be supplied electronically in spreadsheet format, which were initially included in the Company's one hour reconstruction example (KIUC 1- 21 Attachment 1.xlsx in Case Number 2014-00225):

- a. Col H, Incremental Dispatch Cost at Output for Actual
- b. Col BA, Fuel Rate (\$/MBTU)
- c. Col BD, OM Price (\$/MBTU)
- d. Col BB, Handling Rate (\$/MBTU)
- e. Col BC, Chemicals Rate (\$/MBTU)
- f. Col AN, Nox Market Price (\$/Ton)
- g. Col Q, Nox Volume (conversion factor)
- h. Col AW, Nox Curve Slope
- i. Col AX, Nox Curve Intercept
- j. Col AO, Sox Market Price (conversion factor)
- k. Col AL, Nox Inventory Rate
- I. Col AU, SOX Curve Slope
- m. Col AV, SOX Curve Intercept
- n. Col AM, SOX Inventory Rate
- o. Col H, Purchases Inc. Cost
- p. Col AI, Purchases \$/MWH
- q. Col AJ, Purchases MWH
- r. Col F, Row 12 Load Obligation
- s. Col F. Row 13 Marginal Load Adjustment
- t. Col F, Row 14, Spot Market Energy Sales
- u. Though not included in KIUC 1-21, provide the corresponding hourly spot market energy sales revenue.

Q.1-26 Please provide an hourly energy balance showing in each hour of the review period demonstrating that there is a balance of generation plus purchases with all load (Native Load, OSS, other) Please provide this data for the period November 2012 through

October 2014, electronically with formulas intact. Please ensure that all data is reported in the proper time zone.

Q.1-27 Please refer to the testimony of Mr. Rogness at page 9.

- a. Please explain how PJM costs are allocated between off system sales obligations and internal load requirements.
- b. For each month of the review period please show the total PJM costs, PJM costs allocated to off system sales, PJM costs allocated to Kentucky native load and PJM costs allocated to FERC all requirements wholesale customers. Please provide this electronically in spreadsheet format.
- c. For each month of the review period please break out the total PJM cost into each individual billing line item ("BLI"). Please provide this electronically in spreadsheet format.
- d. For each PJM BLI recovered through the FAC, please cite the provision of the FAC regulation that authorizes recovery.

Respectfully submitted,



Michael L. Kurtz, Esq.
Kurt J. Boehm, Esq.
Jody Kyler Cohn, Esq.
BOEHM, KURTZ & LOWRY
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202
Ph: 513.421.2255 fax: 513.421.2764
mkurtz@BKLawfirm.com
kboehm@BKLawfirm.com
jkylercohn@BKLawfirm.com

March 6, 2015

**COUNSEL FOR KENTUCKY INDUSTRIAL
UTILITY CUSTOMERS, INC.**