

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE**  
**PUBLIC SERVICE COMMISSION OF KENTUCKY**

**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 POWER COMPANY RESPONSES TO**  
**KIUC FIRST SET OF DATA REQUESTS**

**March 25, 2015**

VERIFICATION

The undersigned, Kelly D. Pearce, being duly sworn, deposes and says he is the Director Contract and Analysis for American Electric Power, that he has personal knowledge of the matters set forth in the forgoing responses for which he is the identified witness and that the information contained therein is true and correct to the best of his information, knowledge and belief

*Kelly D. Pearce*

Kelly D. Pearce

STATE OF OHIO )

) Case No. 2014-00450

COUNTY OF FRANKLIN )

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Kelly D. Pearce, this the 20<sup>th</sup> day of March, 2015.

*Ann Dawn Clark*

Notary Public



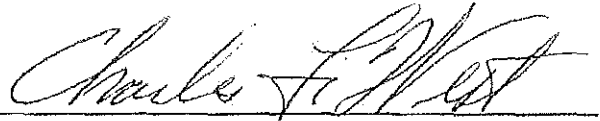
Ann Dawn Clark  
Notary Public-State of Ohio  
My Commission Expires  
November 16, 2015

My Commission Expires: November 16, 2015



**VERIFICATION**

The undersigned, Charles F. West, being duly sworn, deposes and says he is the Manager, Coal Procurement for American Electric Power, that he has personal knowledge of the matters set forth in the forgoing data response for which he is identified as the witness and that the information contained therein is true and correct to the best of his information, knowledge and belief



Charles F. West

STATE OF OHIO

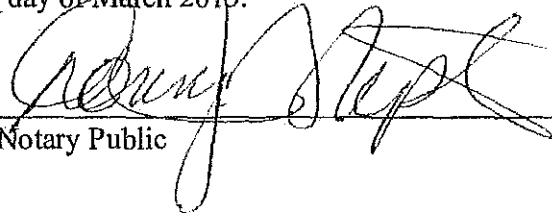
)

) Case No. 2014-00450

COUNTY OF FRANKLIN

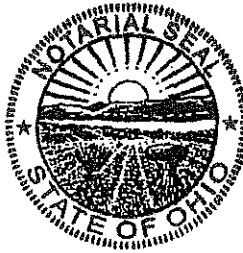
)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Charles F. West, this the 24<sup>th</sup> day of March 2015.



Notary Public

My Commission Expires: 1/4/2019



Donna J. Stephens  
Notary Public, State of Ohio  
My Commission Expires 01-04-2019

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see the Company's response to KPSC-2-3.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

- a-c. Please see KPSC\_2\_3\_Attachment 1.xls. The supporting workpapers are provided in the Company's response to KPSC 2-3.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

- a. Refer to the Company's response to KIUC 2-15 part d. in Case No. 2014-00225.
- b. The study was performed in the following steps:
  - 1) Mitchell was removed as a resource available to Kentucky Power;
  - 2) PJM spot market energy volumes, as off-system sales and third party purchases, were adjusted based on the change in the PJM day-ahead position of KPCo.

- 3) Power Tracker re-computed the allocation of the modified resources (KPCo generation without Mitchell and modified third party purchases) to serve the real time internal load and modified off-system sales.

In the modeling process, the controllable dispatch generation above the unit minimums, and dispatchable purchases are "stacked" on a \$/MWh basis. A "top-down" approach is used to allocate cost to OSS. For each hour, for each resource, the resource with the most expensive \$/MWh cost of the last MWh produced is assigned to OSS. This MWh assignment will continue in this top-down approach whereby the next most expensive \$/MWh cost, selected from among all of the dispatchable resources, is assigned to OSS until all OSS have been accounted for, or if it occurs, a low-load condition is reached, for which the remaining MWhs of OSS are allocated at the average incremental costs of all the resources. The remaining cost, which have not been assigned to OSS remains with internal load.

- c. Please see the response to KIUC 1-3 b. above.
- d. Exhibit KDP-1 provides fuel-related cost savings as a result of the Company's ownership of Mitchell. The Power Tracker analysis did not include the impact on miscellaneous operating reserve charges and credits and how such remaining charges and credits would be reassigned between internal load and OSS had the Company not had Mitchell available to it to serve load. However, based on the Company's experiences operating in the PJM market, such charges and credits would be expected to be small relative to the \$6.9 million benefit presented in Exhibit KDP-1.
- e. Regarding the Power Tracker model, refer to the Company's response to KIUC 2-15 part a. in Case No. 2014-00225.

Power Tracker output results of the Mitchell study can be found in the Company's response to KPSC-2-3.

Regarding the example of calculations performed for one hour in which the sum of the Company's minimum segments with Mitchell exceeded the Company's native load, please see KIUC\_1\_3\_Attachment1.xlsx for output results. For input data to the calculation, please see KIUC\_1\_3\_Attachment2.xls and KIUC\_1\_3\_Attachment3.xls.

**WITNESS:** Kelly D Pearce



## **Kentucky Power Company**

### **REQUEST**

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.

### **RESPONSE**

First, while the fuel costs allocated to the Company's internal load customers and the avoided costs associated with owning Mitchell varied on a month-to-month basis, owning Mitchell resulted in an overall net benefit of \$6.9 million for 2014.

For any period, be it hourly, monthly or the sum total of multiple months, the cost analysis to determine the net customer benefit of Mitchell is a comparison of (a) the Mitchell fuel costs allocated to internal load, which includes no load fuel costs, and (b) the costs of the resources, including other generation and market purchases, that would have replaced Mitchell to serve internal load had Mitchell not been available. For the May through October period, the cost of replacement resources, in total over this period, were less than the Mitchell fuel costs, including the no load costs, that stayed with internal load. This result was generally due to the high equivalent availability of the Company's other plants, Big Sandy and Rockport, and the moderate prices of power during times when additional market purchases would have been required had Mitchell not been available.

For the January through April and November through December periods of 2014, the Mitchell fuel costs allocated to internal load, including no load fuel costs, were cheaper than the costs the Company would have incurred to serve native load had Mitchell not been available. The sum total of all the months for 2014 resulted in a net benefit of \$6.9 million.

Please refer to the Company's response to KPSC 2-3, Attachment 1, for the details on the monthly comparison of Mitchell's fuel cost compared with the costs avoided by the Company due to its ownership of Mitchell.

**WITNESS:** Kelly D Pearce

## **Kentucky Power Company**

### **REQUEST**

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.

### **RESPONSE**

- a. It is possible, and likely, that the Company's production costs at times would increase with the addition of economic generation. All generation is subject to operational constraints. For example, a generator may provide overall cheaper power than the market during summer midday hours or during the winter in the morning and evening, but be more expensive than market purchases overnight. While such units can be backed down and ramped up, they cannot be shut down and restarted without incurring the time and cost required to begin another start-up cycle.

In addition, units generally dispatch economically to a megawatt (MW) level based on a clearing price, not just to provide that MW amount of generation necessary to serve a certain fixed load. However, because all units dispatched are available first and foremost to serve native load, certain fixed fuel costs are allocated to native load to reflect this priority.

- b. Yes they are. Please refer to the Company's responses to subpart a. above and KIUC 1-4.
- c. Not applicable.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

- a. Please see the Company's response to KPSC 2-8 and 2-10.
- b. Please see KIUC\_1\_6\_Attachment1.xls for a revised Table 2 found in Rogness testimony page 5. The revision corrects a typographical error in the Cents Per kWh Above (or Below) Base Fuel Rate column. The supporting workpaper is provided in the attachment also.
- c. Please see the Company's response to KPSC 2-8 and 2-10.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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

**RESPONSE**

- a. Please see KIUC\_1\_7\_Attachment1.xls for the requested information. The Company has discovered that the Percent of Commitment for Arch and Rhino in the Big Sandy Plant Long Term Commitments table was listed in error. The Percent of Commitment for Arch and Rhino have been corrected in KIUC\_1\_7\_Attachment1.xls to 57% and 107%, respectively. As noted in the footnotes, the contractual tonnage commitment for both contracts were met in full over the life of the agreement.
- b. Please see KIUC\_1\_7\_Attachment2.xls for the requested information.

**WITNESS:** Charles F West

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

PJM's installed reserve margin requirement for Fixed Resource Requirement (FRR or "self supply") entities provides the minimum MWs of unforced capacity a PJM load serving entity must have to fulfill its capacity obligation. This is an annual, not monthly, obligation that occurs for 12-month periods from June 1 to May 31. KIUC\_1\_8\_Attachment 1 provides the Company's MWs of length on that basis.

The PJM reserve margin is based on each entity's contribution to PJM's peaks, which occur in the summer months. Consequently, a winter peaking entity such as the Company can have enough capacity to fulfill the PJM capacity requirement and yet have insufficient capacity to satisfy its winter peaks. Such is the case when the Company had a January 2014 peak of 1,645 MW and yet, without Mitchell, would have had resources that totaled only 1,470 MW (assuming all other resources were available).

Provided in KIUC\_1\_8\_Attachment 1 is an alternative computation of the Company's reserve margin in terms of its own peaks non-coincident with the PJM peaks.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please refer to the Company's responses to KIUC 1-12, KIUC 1-15, and KIUC 1-24.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

Please provide the Net Income Earnings to Common Shareholders monthly since November 2012; please provide this electronically in spreadsheet format.

**RESPONSE**

Please see [KIUC\\_1\\_10\\_Attachment1.xls](#) for the response.

**WITNESS:** John A Rogness

## **Kentucky Power Company**

### **REQUEST**

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.

### **RESPONSE**

- a. Please see attachment KIUC\_1\_11\_Attachment1.xls.
- b. Please see attachment KIUC\_1\_11\_Attachment2.xls. For each unit's monthly no load cost, please refer to KIUC\_1\_11\_Attachment1.xls.



c. Please see KPSC\_1\_38\_Attachment1.xls.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_12\_Attachment1.xls.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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

**RESPONSE**

- a. See KIUC\_1\_13\_Attachment1.xlsx for the requested information.
- b. Refer to the Company's response to KPSC 1-39.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

- a. See KIUC\_1\_14\_Attachment1\_Confidential\_in\_Entirety.xls through KIUC\_1\_14\_Attachment49\_Confidential\_in\_Entirety.xls. Confidential treatment is being sought for the entirety of the invoices.
- b. See the Company's response to KIUC-1-1 in Case No. 2014-00225, specifically part c.
- c. The Company cannot prepare the requested reconciliation of these two fuel adjustment calculations because the two fuel adjustment calculations are not comparable. The two calculations differ because the relevant regulatory agency - the Public Service Commission of Kentucky or FERC - have approved recovery of the costs in different manners. Please refer to Attachment KIUC\_1\_14\_Attachment50\_confidential.xls through KIUC\_1\_14\_Attachment52\_confidential.xls for the wholesale FAC calculation and the retail FAC calculations that are included with the response to KIUC 1-15. Also, please see the Company's response to KIUC 1-1, subpart d, in Case No. 2014-00225.

**WITNESS:** John A Rogness/Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

- a. Please see KIUC\_1\_12\_Attachment1.xls.
- b. Please see KIUC\_1\_15\_Attachment1.xls.
- c. Please see KIUC\_1\_12\_Attachment1.xls.
- d. Please see KIUC\_1\_12\_Attachment1.xls.
- e. Please see KIUC\_1\_15\_Attachment26.xls.
- f. Please see KIUC\_1\_12\_Attachment1.xls thru KIUC\_1\_12\_Attachment25.xls.

Please see also the Company's response to KIUC 1-24.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

There is no allocation of no-load costs between "Internal Load" and "FERC Wholesale customers" since FERC Wholesale customers are part of the internal load.

Consequently, the Company assumes what is being requested is the allocation of the no load fuel costs between retail load and FERC Wholesale customers. Please see KIUC\_1\_16\_Attachment1 to this response for the amount of no-load fuel costs assigned to native load, the two FERC all-requirements wholesale customers, and off-system sales.

No-load fuel costs are not associated with specific increments of generation, and thus are not allocated to off-system sales and remain with native load costs.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_17\_Attachment1\_Confidential.xls for the requested information.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_18\_Attachment1.xls for the requested information. The sales are all non-firm.

**WITNESS:** John A Rogness



**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_19\_Attachment1.xls for the requested information. The purchases were all non-firm.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_20\_Attachment1\_Confidential.xls for the requested information.

**WITNESS:** Kelly D Pearce

## **Kentucky Power Company**

### **REQUEST**

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).

**RESPONSE**

(a)-(b) Please see KIUC\_1\_21\_Attachment1.xls.

(c) Please see KIUC\_1\_21\_Attachment2\_Confidential.xls for the periods November to December 2012 and May to October 2014. See KIUC\_1\_21\_Attachment4\_CONFIDENTIAL.xls, originally filed in case 2014-0225, for corresponding data for the January 2013 to April 2014 period.

(d)-(j) Please see KIUC\_1\_21\_Attachment3\_Confidential.xls for the periods November to December 2012 and May to October 2014. See KIUC\_1\_21\_Attachment5\_CONFIDENTIAL.xls, originally filed in case 2014-0225, for corresponding data for the January 2013 to April 2014 period.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_22\_Attachment1.xls for Primary Energy sales data for November through December 2012. There were no Primary Energy Sales in 2014. Please see KIUC\_1\_22\_Attachment2.xls for third party sales data for November through December 2012 and May through October 2014.

The remainder of the period is included in KIUC\_1\_22\_Attachment3.xls and KIUC\_1\_22\_Attachment4.xls, which were originally provided in the Company's response to KIUC 1-13 in Case No. 2014-0225.

Because of differences between the manner in which hourly and monthly data is compiled, the hourly data presented in the responses to KIUC 1-22 and 1-23 do not include non-physical trading reflected in the monthly amounts provided in the responses to KIUC 1-18 and 1-19.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_23\_Attachment1.xls for Primary Energy purchase data for November through December 2012. Please see KIUC\_1\_23\_Attachment2.xls for third party purchase data for November through December 2012 and May through October 2014. There were no Primary Energy purchases in 2014.

The remainder of the period is included in KIUC\_1\_23\_Attachment3.xls and KIUC\_1\_23\_Attachment4.xls, which were originally provided in the Company's response to KIUC 1-14 and KIUC 2-14 in Case No. 2014-0225.

**WITNESS:** John A Rogness

**Kentucky Power Company**

**REQUEST**

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

**RESPONSE**

An index of the Attachments to this response is included as KIUC\_1\_24\_Attachment1. See KIUC\_1\_24\_Attachment2 through KIUC\_1\_24\_Attachment73. The Company provided the files for November 2013 through April 2014 in KIUC\_1\_20\_Attachment2 through KIUC\_1\_20\_Attachment25 in Case No. 2014-00225.

**WITNESS:** Kelly D Pearce

## **Kentucky Power Company**

### **REQUEST**

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
- l. 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.



**RESPONSE**

a.-n. and r.-s. See KIUC\_1\_25\_Attachment1.xls for November 2012 to December 2013 and May 2014 to October 2014. See KIUC\_1\_25\_Attachment2.xls which was filed as KIUC\_2\_11\_Attachment1.xls in Case No. 2014-00225, for the corresponding data for the January to April 2014 period.

o.-p. See KIUC 1-23. Note that the Incremental Cost (o) is the purchase cost in dollars per MWh.

t.-u. See KIUC 1-22.

**WITNESS:** Kelly D Pearce

**Kentucky Power Company**

**REQUEST**

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.

**RESPONSE**

Please see KIUC\_1\_26\_Attachment1.xlsx.

**WITNESS:** Kelly D Pearce

## **Kentucky Power Company**

### **REQUEST**

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 BLI. Please provide this electronically in spreadsheet format.
- d. For each PJM billing line item ("BLI") recovered through the FAC, please cite the provision of the FAC regulation that authorizes recovery.

### **RESPONSE**

- a. Please refer to the Company's responses to KPSC 1-38 and KPSC 2-12.
- b. For total PJM costs recovered through the FAC, please refer to KPSC 1-38.

Please refer to KPSC\_1\_38\_Attachment1 for a breakout of purchases as assigned to internal load and off system sales.

KPSC\_1\_38\_Attachment2 presents the marginal line losses as assigned to internal load, and KIUC\_1\_27\_Attachment1 reflects the marginal line losses assigned to off system sales.

Please see KIUC\_1\_27\_Attachment2.xls for the allocation of purchases and marginal line losses between retail customers and FERC wholesale customers.

- c. Please refer to the Company's response to KPSC 2-12 for a breakout of PJM costs by BLI that have been included in the Company's FAC calculation.
- d. All PJM BLIs recovered through the Company's fuel adjustment clause are recovered pursuant to 807 KAR 5:056, Section 1(3)(a)-(c). The Commission approved Kentucky Power's inclusion of marginal line losses in the FAC in Case No. 2007-00522 and its treatment of purchased power costs in Case Nos. 2000-00495 and 2014-00225.

**WITNESS:** John A Rogness