COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)
POWER COMPANY FOR (1) A GENERAL)
ADJUSTMENT OF ITS RATES FOR ELECTRIC)
SERVICE; (2) AN ORDER APPROVING ITS 2017) Case No. 201700179
ENVIRONMENTAL COMPLIANCE PLAN; (3) AN)
ORDER APPROVING ITS TARIFFS AND RIDERS;)
(4) AN ORDER APPROVING ACCOUNTING)
PRACTICES TO ESTABLISH REGULATORY)
ASSETS AND LIABILITIES; AND (5) AN ORDER)
GRANTING ALL OTHER REQUIRED APPROVALS	\$)
AND RELIEF)

KENTUCKY POWER COMPANY RESPONSES TO KENTUCKY COMMERCIAL UTILITY CUSTOMERS (KCUC) FIRST SET OF DATA REQUESTS

August 28, 2017

The undersigned, Douglas R. Buck, being duly sworn, deposes and says he is Senior Regulatory Consultant for American Electric Power Service Corporation and 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.

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Douglas R. Buck 6

STATE OF OHIO

) Case No. 2017-00179

County of FRANKLIN

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Douglas R. Buck, this the 23^{-1} day of August 2017.



Princess M. Brown Notary Public, State of Ohio My Commission Expires 04-19-2020 Notary Public

My Commission Expires: <u>4/19/2020</u>

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

M Stephen L. Sharp

COMMONWEALTH OF KENTUCKY)
) 2017-00179
COUNTY OF FRANKLIN)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Stephen L Sharp, this the <u>JSW</u> day of August 2017.

Rasquest Notary Public

Notary ID Number: 571144

My Commission Expires: January 23, 2021

The undersigned, Katharine I. Walsh, being duly sworn, deposes and says she is a Regulatory Consultant Principal for American Electric Power that she has personal knowledge of the matters set forth in the forgoing data requests and the information contained therein is true and correct to the best of his information, knowledge and belief

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Katharine I Walsh

STATE OF OHIO

COUNTY OF FRANKLIN

) CASE NO. 2017-00179

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Katharine I Walsh, this the 22^{44} day of August 2017.



Cheryl L. Strawser Notary Public, State of Ohio My Commission Expires 10-01-2021

Notary Public

My Commission Expires: October 152021

The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is the Manager, Regulatory Pricing and Analysis 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.

Alex E. Vaughan

STATE OF OHIO

COUNTY OF FRANKLIN

) Case No. 2017-00179

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Alex E. Vaughan, this the 24% day of August 2017.



Princess M. Brown Notary Public, State of Ohio My Commission Expires 04-19-2020

Notary Public

My Commission Expires: 4/19/2020

DATA REQUEST

KCUC_1_001
Please provide updated versions of the Company's cost-of-service and rate design workpapers and models reflecting the reduced revenue requirement in the Company's August 7, 2017 supplemental filing, including, but not limited to, updated versions of the following files that were originally provided in response to Staff's Data Request 1-73, in Excel format with formulas intact:

a. KPCO_R_KPSC_1_73_Attachment3_Section_V.

b. KPCO_R_KPSC_1_73_Attachment35_KPCO_CCOS_-____Test_Year_2017_-__DRB__-_FINAL__-_KPSC_DR_1-73.
c. KPCO_R_KPSC_1_73_Attachment72_AEVWP2.
d. KPCO_R_KPSC_1_73_Attachment74_AEVWP3.
e. KPCO_R_KPSC_1_73_Attachment74_AEVWP4.
f. KPCO_R_KPSC_1_73_Attachment76_AEVWP6.

RESPONSE

Kentucky Power objects to this request as unduly burdensome to the extent it calls for the Company to re-perform rate design for this case. Without waving this objection, the Company responds as follows.

For part a, refer to KPCO_SR_KPSC_1_73_SupplementalAttachment3_SectionVSchedules_TYE2-28-2017FINAL.xlsx filed as a supplemental response to KPSC 1-73.

The Company has not prepared updated versions of the attachments requested in parts b-f.

DATA REQUEST

KCUC_1_002 Please provide the workpaper that is the source for the pasted values in the "FROM CCOS" section on rows 30 through 38 on the "EX AEV-1" tab of the file KPCO_R_KPSC_1_73_Attachment73_AEVWP3. Specifically, this workpaper should demonstrate how these amounts were derived from the CCOS by linking to the cost-of-service model. Please also provide the comparable workpaper for the updated files reflecting the supplemental revenue requirement requested in KCUC First Data Request, Item 1 above.

RESPONSE

Please see Attachment KPCO_R_KPSC_1_73_Attachment 35_KPCO_CCOS_-_Test_Year_2017_-DRB_-_FINAL_-_ KPSC_DR_1-73.xlsx, the "CCOS" tab. Expand lines 4577 through 4584 for functional costs by rate class. See also the Company's response to KCUC 1-001 for the supplemental revenue requirement workpapers.

DATA REQUEST

KCUC_1_003 Please refer to KPCO_R_KPSC_1_73_Attachment54_CPDEM, provided in response to Staff's Data Request 1-73. Please explain why the system subtransmission coincident peaks at meter on the "Subtran Peaks" tab are significantly lower than the transmission coincident peaks at meter on the "Tran Peaks" tab, excluding transmission voltage classes. For example, the transmission peak at meter in January excluding classes LGS Tran and IGS Tran is 1,168,160 kW, while the subtransmission peak at meter in January in 932,811 kW.

RESPONSE

Not all of the Company's primary distribution system is served from the subtransmission system. A portion of the primary distribution system is served directly from the transmission system. As a result, the system subtransmission coincident peaks are lower than the transmission coincident peaks.

DATA REQUEST

KCUC_1_004 Please provide, in a similar format as the "Tran Peaks" tab of KPCO_R_KPSC_1_73_Attachment54_CPDEM, the monthly, lossadjusted generation coincident peaks by class for calendar years 2012, 2013, 2014, 2015, and 2016.

RESPONSE

Kentucky Power's class data such as transmission peak data and generation peak data by customer class is calculated only in preparation for the filing of a Kentucky Power base rates case. Therefore the data requested is only available for the test year. The Company further notes that transmission peak data and generation peak data are the same in the class cost-of-service study.

DATA REQUEST

KCUC_1_005 Please provide, in a similar format as the "Sch 9" tab of KPCO_R_KPSC_1_73_Attachment3_Section_V, the monthly Kentucky Peaks –Max Load, Kentucky Internal Peak Load, and Retail (KY Jurisdictional) Load for calendar years 2012, 2013, 2014, 2015, and 2016.

RESPONSE

The Company has not prepared the requested analysis in that manner as requested for calendar years 2012, 2013, 2014, 2015, or 2016.

In the Company's most recent base rate case, Case No. 2014-000396, the Company utilized a test year ending September 30, 2014. Please see KPCO_R_KCUC_1_5_Attachment1.xlsx for the requested information in a similar format as the "Sch 9" from Case No. 2014-00396 or the test year ending September 30, 2014

Please see KPCO_R_KCUC_1_5_Attachment2.xlsx for peak date and time and total peak information for calendar years 2012-2016.

WITNESS: Katharine I. Walsh

DATA REQUEST

KCUC_1_006 Please refer to the analysis presented in KPCO_R_KPSC_1_73_Attachment76_AEVWP6, used to determine the Residential Full Cost Basic Service Charge based on the customer-related portions of Accounts 364, 365, 367, and 368. Does Kentucky Power believe that it would be reasonable to utilize the customer-related portions of these accounts developed in this analysis for the purposes of cost allocation (i.e. allocating that portion of plant based on customer count)? If not, please explain why Kentucky Power believes this analysis should be utilized to guide rate design but not for cost allocation.

RESPONSE

While it could be reasonable to utilize such a marginal cost analysis if it were part of a comprehensive marginal cost of service study, the reasonable, generally accepted practice in Kentucky is to prepare an embedded cost of service study. Marginal cost information such as the analysis presented in KPCO_R_KPSC_1_73_Attachment76_AEVWP6 is useful as one of many factors informing rate design for the purpose of providing price signals to customers.

DATA REQUEST

KCUC_1_007 The headers on the "Acct_364", "Acct_365", "Acct_367" and "Acct. 368" tabs of KPCO_R_KPSC_1_73_Attachment76_AEVWP6 state: Test Period Ending September 30, 2014. Does the data on these tabs represent the test period for the current rate case or the last rate case? If the latter, please provide the comparable analysis for the Test Period in this case, in Excel format.

RESPONSE

Refer to the Company's response to KPSC 2-68.

DATA REQUEST

KCUC_1_008
Please indicate whether Kentucky Power has conducted a minimum size study to determine the customer-related portions of the following distribution plant types:

a. Account 364 – Primary
b. Account 364 – Secondary
c. Account 365 – Primary
d. Account 365 – Primary
d. Account 367 – Primary
f. Account 367 – Primary
g. Account 368 – Primary
h. Account 368 – Primary
h. Account 368 – Secondary
If so, please provide the customer-related proportion of each plant type as well at the workpapers related to Kentucky Power's minimum size study, in Excel format.

RESPONSE

A minimum system study has not been performed.

DATA REQUEST

KCUC_1_009The following data requests concern secondary distribution poles
(Account 364):

a. What is the minimum height secondary distribution pole currently installed by Kentucky Power recorded in Account 364?

b. What is the current average cost to install the minimum height secondary distribution pole recorded in Account 364? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of secondary distribution poles (Account 364) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the in-service year of the oldest such pole still in service.

RESPONSE

a, b) Please refer to the respective tab in KPCO_R_KPSC_1_73_Attachment34_Distribution_Plant_Study.xls for the requested data.

c) Please refer to KPCO_R_KCUC_1_9c and 10c_Attachment1.xls.

DATA REQUEST

KCUC_1_010The following data requests concern primary distribution poles (Account
364):

a. What is the minimum height primary distribution pole currently installed by Kentucky Power recorded in Account 364?

b. What is the current average cost to install the minimum height primary distribution pole recorded in Account 364? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of primary distribution poles (Account 364) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the in-service year of the oldest such pole still in service.

RESPONSE

Please refer to the Company's response to KCUC_1_009.

DATA REQUEST

KCUC_1_011 The following data requests concern secondary overhead conductors (Account 365):

a. What is the minimum size secondary overhead conductor currently installed by Kentucky Power recorded in Account 365?

b. What is the current average cost to install the minimum size secondary overhead conductor per mile recorded in Account 365? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of miles of secondary overhead conductor (Account 365) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the in-service year of the oldest such conductor still in service.

RESPONSE

a, b) Please refer to the respective tab in KPCO_R_KPSC_1_73_Attachment34_Distribution_Plant_Study.xls for the requested data.

c) Please refer to KPCO_R_KCUC_1_11c and 12c_Attachment1.xls.

DATA REQUEST

KCUC_1_012The following data requests concern primary overhead conductors
(Account 365):

a. What is the minimum size primary overhead conductor currently installed by Kentucky Power recorded in Account 365?

b. What is the current average cost to install the minimum size primary overhead conductor per mile recorded in Account 365? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of miles of primary overhead conductor (Account 365) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the in-service year of the oldest such conductor still in service.

RESPONSE

Please refer to the Company's response to KCUC_1_011.

DATA REQUEST

KCUC_1_013The following data requests concern secondary underground conductors
(Account 367):

a. What is the minimum size secondary underground conductor currently installed by Kentucky Power recorded in Account 367?

b. What is the current average cost to install the minimum size secondary underground conductor per mile recorded in Account 367? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of miles of secondary underground conductor (Account 367) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the in-service year of the oldest such conductor still in service.

RESPONSE

a, b) Please refer to the respective tab in KPCO_R_KPSC_1_73_Attachment34_Distribution_Plant_Study.xls for the requested data.

c) Please refer to KPCO_R_KCUC_1_13c and 14c_Attachment1.xls

DATA REQUEST

KCUC_1_014 The following data requests concern primary underground conductors (Account 367):

a. What is the minimum size primary underground conductor currently installed by Kentucky Power recorded in Account 367?

b. What is the current average cost to install the minimum size primary underground conductor per mile recorded in Account 367? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of miles of primary underground conductor (Account 367) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the in-service year of the oldest such conductor still in service.

RESPONSE

Please refer to the Company's response to KCUC_1_013.

DATA REQUEST

KCUC_1_015 The following data requests concern secondary transformers (Account 368):

a. What is the minimum size secondary transformer currently installed by Kentucky Power recorded in Account 368?

b. What is the current average cost to install the minimum size secondary transformer recorded in Account 368? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of secondary transformers (Account 368) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the inservice year of the oldest such transformer still in service.

RESPONSE

a, b) Please refer to the respective tab in KPCO_R_KPSC_1_73_Attachment34_Distribution_Plant_Study.xls for the requested data.

c) Please refer to KPCO_R_KCUC_1_15c and 16c_Attachment1.xls

DATA REQUEST

KCUC_1_016 The following data requests concern primary transformers (Account 368):

a. What is the minimum size primary transformer currently installed by Kentucky Power recorded in Account 368?

b. What is the current average cost to install the minimum size primary transformer recorded in Account 368? Please include the cost of materials, labor, and loadings.

c. Please provide, in Excel format, the number of primary transformers (Account 368) placed into service by Kentucky Power annually through 2016 that are still in service. This annual data should begin with the inservice year of the oldest such transformer still in service.

RESPONSE

Please refer to the Company's response to KCUC_1_015.

DATA REQUEST

KCUC_1_017 Please refer to lines 1-9 of page 21 of the testimony of Alex E. Vaughan, in which he states that "3,793 customer accounts moved between the SGS and MGS tariffs." Please provide a more detailed description as to what conditions customers' accounts would move between Tariff S.G.S. and Tariff M.G.S. during the test year. Include in your response whether all moves between these two tariff classifications were determined by Kentucky Power or whether the moves were requested by the customer.

RESPONSE

As detailed in the "Availability of Service" portion of Tariff S.G.S., service under Tariff S.G.S. is available for customers with average monthly demands less than 10 kW and maximum monthly demands of less than 15 kW. A customer on Tariff S.G.S. would be moved to Tariff M.G.S. if it exceeded those parameters. Conversely, a customer receiving service under Tariff M.G.S. would become eligible for SGS if it fell below the 10 kW monthly average demand and the maximum 15 kW demand. The Company does not track whether the moves were initiated by the Company or the customer.

DATA REQUEST

KCUC_1_018 Please refer to footnote 3 of the testimony of Alex E. Vaughan, in which he states that "1,245 SGS customers moved from SGS to MGS, and 2,548 MGS customers moved to SGS."

a. How many customers moved from Tariff S.G.S to Tariff M.G.S. back to Tariff S.G.S within the test year?

b. How many customers moved from Tariff M.G.S to Tariff S.G.S. back to Tariff M.G.S within the test year?

c. Are the number of customers identified in subparts (a) and (b) above reflected in the totals of 1,245 and 2,548 customers mentioned in footnote 3 of Mr. Vaughan's testimony?

RESPONSE

a. - c. Per Kentucky Power's Terms and Conditions of Service, a customer is not eligible to change rate schedules within a 12-month period.

DATA REQUEST

KCUC_1_019Refer to Exhibit I of the Application. Provide detailed calculations for
"Present Average Billing" and General Rate Increase "Proposed Average
Billing" for the Tariff S.G.S., Tariff M.G.S., and Tariff G.S.

RESPONSE

Refer to KPCO_R_KCUC_1_19_Attachment1.xlsx for the requested information . The "Present Average Billing" for SGS and MGS is calculated by taking the current class revenue and dividing by the year-end number of customers in the rate class. For GS, the SGS and MGS current revenue is summed, and then divided by the sum of the year-end customers in SGS and MGS. The GS "Proposed Average Billing" is calculated in the same manner.

DATA REQUEST

KCUC_1_020 Refer to Page 7 of 35 of Exhibit J of the Application.

(a) Please confirm that there is no proposed revenue for demand charges from former Tariff S.G.S. customers.

(b) State whether Kentucky Power anticipates that any of its Tariff S.G.S. customers will incur demand charges under the proposed Tariff G.S. If so, why is there no demand-charge revenue shown on Page 7 of 35 of Exhibit J?

RESPONSE

a. Because there are no demand charges on proposed rate GS for customers with average monthly demands less than 10 kW, there is no proposed demand revenue from former SGS customers. See also the Company's response to KPSC 1-73, specifically KPCO_R_KPSC_1_73_Attachment72_AEVWP2.xlsx.

b. Neither tariff SGS or proposed tariff GS includes demand charges for customers with average monthly demands less than 10 kW, so former SGS customers will not incur demand charges under the proposed rate.

DATA REQUEST

KCUC_1_021 If a customer previously moved from Tariff M.G.S. to Tariff S.G.S., did Kentucky Power remove any demand meters?

RESPONSE

No, the Company does not typically remove demand meters.

DATA REQUEST

KCUC_1_022	Identify the costs to Kentucky Power for a demand meter and an
	equivalent consumption-only meter that does not measure demand.

RESPONSE

See the Company's response to Staff 1-73, specifically the "meter" tab of attachment 32 "CCOS Support Workpapers".

DATA REQUEST

KCUC_1_023 State whether Kentucky Power recovers any costs incurred for a demand meter from a customer through any rate mechanism other than general rates, such as the "extension of service" tariff provisions or other nonrecurring charge.

RESPONSE

Meter costs are only recovered through general rates.

DATA REQUEST

KCUC_1_024 State whether all Kentucky Power customer accounts within the S.G.S. class currently have a demand meter installed for their service. If not, state the number of customer accounts within this class that (a) have and (b) do not have a demand meter installed.

RESPONSE

Not all SGS customers have demand meters and the Company's proposal does not require all former S.G.S. customers to have demand meters.

a & b. The Company has not performed the requested analysis. In general, for tariff classes without required demand charge billings, the only meters capable of registering kW demand readings are those meters for customers that in the past were on a demand billing tariff and the meter was not changed when the customer changed tariffs and those meters used for the Company's load research samples.

DATA REQUEST

KCUC_1_025 Kentucky Power's proposed Tariff G.S. indicates that a demand charge shall only apply to monthly billings in excess of 10 kW. For each month during the historical test year, identify.

a. the number of total customers in Tariff S.G.S. and

b. the number of total customers who exceeded 10kW demand during that month.

RESPONSE

a. Please see KPCO_R_KCUC_1_25_Attachment1.xls.

b. The Company has not performed the requested analysis. See also the Company's response to KCUC 1-24.

DATA REQUEST

KCUC_1_026 Kentucky Power's proposed Tariff G.S. indicates that a demand charge shall only apply to monthly billings in excess of 10 kW. For each month during the historical test year, identify.

a. the number of total customers in Tariff M.G.S. and

b. the number of total customers who exceeded 10kW demand during that month.

RESPONSE

a. Refer to KPCO_R_KCUC_1_26_Attachment1.xls.

b. The Company has not performed the requested analysis. See the Company's response to Staff 1-73, specifically the MGS tabs of KPCO_R_KPSC_1_73_Attachment72_AEVWP2.xlsx for the total test year billing units of kW demands greater than 10kW.

DATA REQUEST

KCUC_1_027 Please explain how and why Kentucky Power determined that customers on the proposed Tariff G.S. would not incur a demand charge until the customer exceeded 10 kW.

RESPONSE

The Company kept the applicability of demand charges for the proposed tariff GS consistent with the current SGS tariff. The Company did so to facilitate the combination of the SGS and MGS Tariffs and limit rate design impacts to the affected customers.

DATA REQUEST

KCUC_1_028 Refer to page 64 of 205 of Exhibit E to the Application. The proposed tariff indicates that the monthly billing demand will be the greatest of three items, one of which is the customer's metered kW demand. A provision on page 63 of Exhibit E to the Application states that the demand charge will only be applied to a monthly billing demand in excess of 10 kW. Please confirm that there will be no demand charge under the proposed Tariff G.S. if a customer's monthly billing demand is less than 10 kW.

RESPONSE

There will be no demand charge under tariff GS if a customer's monthly billing demand is less than 10 kW.

DATA REQUEST

KCUC_1_029 In Case No. 2014-00396, Kentucky Power proposed and was authorized different rates for demand charges. For example, on Tariff L.G.S. Secondary, Kentucky Power proposed a demand charge of \$4.67 per kW and agreed to a charge of \$4.53 per kW. On Tariff M.G.S. Secondary, Kentucky Power proposed a significantly lower demand charge of \$2.05 per kW and agreed to a charge of \$1.91 per kW. Tariff S.G.S. customers paid no demand charge. In the current Case No. 2017-00179, Kentucky Power proposes a unified demand charge for Tariff G.S. and L.G.S. (e.g., a demand charge of \$7.84 per kW for the Secondary Service under both customer classifications). Explain why it is appropriate to unify the demand charge for these customer classifications.

RESPONSE

A uniform demand charges simplifies the transition from GS to LGS as customers' load changes.

DATA REQUEST

KCUC_1_030Please provide a detailed description of how the proposed demand charge
for each customer classification, if applicable, was calculated. When
appropriate, provide specific references to page numbers of exhibits and
other documents in the record to demonstrate the calculations.

RESPONSE

See the testimony of Company Witness Vaughan beginning at page 9. See also KPCO_R_1_73_Attachment73_AEVWP3.xlsx, for the detailed calculations. Each tab is labeled by tariff.

DATA REQUEST

KCUC_1_031 Please refer to lines 12-21 of page 2 of the testimony of Stephen L. Sharp, Jr., that was initially filed in PSC Case No. 2017-0231. Mr. Sharp mentions that Kentucky Power obtained information through a survey performed on its residential customers. Please state whether Kentucky Power has ever performed or commissioned a survey or other study to obtain information on the satisfaction of Kentucky Power's commercial customers. If so, please provide a copy of the most recent survey or study, and any other survey or study performed during the past 10 years.

RESPONSE

In the past ten years Kentucky Power has performed commercial customer surveys with both Market Strategies International (2008 to 2015) and The MSR Group (2016 through current). The latest questionnaire for those two commercial customer studies are provided as KPCO_R_KCUC_1_31_Attachment3.pdf and KPCO_R_KCUC_1_31_Attachment4.pdf.

Kentucky Power has also participated in AEP's semi-annual Managed/Key Accounts study. This study targets those large commercial and industrial customers that have an assigned account manager. Please see KPCO_R_KCUC_1_31_Attachment1.pdf, KPCO_R_KCUC_1_31_Attachment2.pdf, KPCO_R_KCUC_1_31_Attachment5.pdf, and KPCO_R_KCUC_1_31_Attachment6.pdf for the 2014 through 2017 questionnaires. This survey was designed for top energy managers at large corporations and, therefore, is short and only capture the key items of interest to large managed commercial and industrial accounts. As such, these surveys do not include questions relating to the electric bills those companies receive from Kentucky Power.

WITNESS: Stephen L. Sharp