VERIFICATION

The undersigned, Edgar J Clayton, being duly sworn, deposes and says he is the Energy Efficient & Consumer Programs Manager for Kentucky 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

Edgar J Clayton

Edgar J Clayton

COMMONWEALTH OF KENTUCKY) Case No. 2017-00097
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Edgar J Clayton, this the 1st day of May, 2017.

Trisha M. Young Blum

Notary Public

Notary ID: 530202

My Commission Expires: 3-18-2019

TRISHA M. YOUNG
NOTARY ID 530202
COMMISSION EXPIRES 3-18-19

VERIFICATION

The undersigned, John A. Rogness III being duly sworn, deposes and says he is the Director Regulatory Services for Kentucky Power Company, 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

John A Rogness III

COMMONWEALTH OF KENTUCKY	)	
	)	Case No. 2017-00097
COUNTY OF FRANKLIN	)	

Subscribed and sworn to before me, a Notary Public in and before said County and State, by John A Rogness III, this the 4th day of May, 2017.

Notary Public Judy K Rosquist

Notary ID: 571144

My Commission Expires: January 23, 2021

Q - 1 Refer to KPC's response to Commission Staff's First Set of Data Requests, Request No. 4. Please explain what KPC tells its industrial customers in response to inquiries "seeking general information on company sponsored energy efficiency programs," and provide all supporting documentation.

A - 1 The Company's response to industrial customer inquiries concerning the availability of Company-sponsored industrial DSM program is that Kentucky Power currently does not offer any DSM program for Industrial customers. Kentucky Power also informs industrial customers inquiring about such programs that any Company-sponsored industrial DSM programs would be supported by a DSM charge paid by industrial customers.

There is no documentation responsive to this inquiry.

Q - 2 Please describe KPC's efforts to deliver DSM programs to households with incomes below the federal poverty line.

A - 2

The Targeted Energy Efficiency ("TEE") program provides supplemental funding to local Community Action Agencies. These agencies in turn use the funding to provide weatherization services to qualifying low-income residential households. This includes both site-built and manufactured housing construction.

In 2016, the TEE program provided $274,654 for weatherization and education services to 89 households. In addition, the program funded the retrofit of 55 low-income customer high efficiency heating systems. Weatherization services provided to low-income customers include air leakage testing, sealing for HVAC ducts and building envelope, insulation for building envelope, insulation for water supply piping and electric water heater tanks, and retrofit to high efficiency lighting.

Please refer to KPCO_R_SC_1_2_Attachment1.pdf for a more complete description of services provided under the TEE program to low-income customers.

The TEE program also partially funds weatherization auditors at three Community Action Agencies serving the Kentucky Power service area.

Low-income customers can utilize other DSM programs that are available to all residential customers. These programs include company-sponsored community events where EE kits are provided at no cost, participation in the Whole House Efficiency program, which provides a no cost assessment for single and multi-family households and the receipt of discounted high efficiency lighting or appliances offered through the Efficient Products program.

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Witness: Edgar J. Clayton

Q - 3 Refer to KPC's response to Commission Staff's First Set of Data Requests, Request No. 6. Please provide any estimates KPC has of the number of full-time equivalent jobs associated with the vendor contracts implementing the currently approved programs.

A - 3 Please refer to KPCO_R_SC_1_3_Attachment1.pdf for the requested estimates.

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Q - 4 Refer to KPCO_R_KPSC_1_5_Attachment2, included in KPC's response to Commission Staff's First Set of Data Requests, Request No. 5.

Please provide the source of the values used for the avoided cost categories listed below and state whether the values are in nominal dollars or in real, inflation-adjusted dollars.

a. Energy cost

b. Capacity cost i. If this value includes capacity reserves, please explain how the capacity reserve value was derived.

c. Capacity reserves, if not included in capacity costs

d. Natural gas price

e. Environmental externalities

f. Line losses, for energy and peak (please specify if the estimate is based on average or marginal line loss rates).

A - 4 a through e.

The values used in the in the avoided cost analysis are based upon the Company's fundamental analysis of energy. The prices noted are in real dollars. The avoided capacity cost does not include capacity reserves.

f.

The forecast line losses are based on the Company's most recent line loss study. The line losses are averages.

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Witness: Edgar J. Clayton

Q - 5 Refer to KPCO_R_KPSC_1_5_Attachment2, included in KPC's response to Commission Staff's First Set of Data Requests, Request No. 5.

Please state whether any of the following avoided cost categories listed below are included in the Company's avoided cost calculation and if so, please provide the value, source of the value, and state whether the value is in nominal dollars or in real, inflation-adjusted dollars.

a. Ancillary services
b. Transmission and distribution
c. Non-energy benefits (NEBs) (specifying which NEBs are included)
d. Increased reliability
e. Reduced risk (e.g., reduced exposure to future fuel price volatility, future environmental regulation compliance costs, uncertainties of demand forecasts and related capital investments, etc.)
f. Reduced credit and collection costs g. Any other avoided cost values incorporated into cost-effectiveness analyses.

A - 5 The avoided cost categories listed are not included in the Company's fundamental price analysis used in the Company's avoided cost estimates.

Q - 6 Please confirm that KPC uses net savings for cost-effectiveness analyses and provide the source of KPC's net to gross ratios.

A - 6

Confirmed. Net savings are used for the cost-effectiveness analyses.

The net to gross ratios can be calculated from the yearly gross and net savings tables in the Demand Side Management Program Plan report filed case 2015-00271. Please see KPCO_R_SC_1_6_Attachment1.pdf for a copy of the report.

The exceptions are the Community Outreach and Energy Education for Students programs. These two programs, which have not yet been evaluated, are believed to be cost effective. Both programs are part of the ongoing evaluation of the existing DSM portfolio.

The Community Outreach and Energy Education for Students programs are not currently used to calculate shared savings benefits in connection with the portfolio approved in Case No. 2016-00281.

Witness: Edgar J. Clayton

Q - 7 Please provide KPC's DSM cost-effectiveness screening model or tool, in machine readable format with formulas and assumptions intact.

A - 7 Please refer to KPCO_R_KPSC_1_5_Attachment2.xlsx..

Q - 8 Refer to Case No. 2015-00271. Please explain the discrepancy in the data contained in KPC_JAR EX 1 _DSM Plan Final Report.pdf, dated July 31, 2015, and KPC Application_Ex 6 – DSM Plan Final Report.pdf, dated August 10, 2015, and state which of these reports, if any, is the basis of KPC's current DSM portfolio.

A - 8

The August 10, 2015 report is the final report and was used as the basis for the DSM portfolio. The August 10, 2015 report was correctly attached to the application as Exhibit 6.

The July 31, 2015 report was a preliminary version of the Applied Energy Group's "Final Report" and was inadvertently attached to Mr. Rogness testimony in lieu of the August 10, 2015 version. The minor differences between the preliminary and August 10, 2015 versions of the report reflect formatting, proofing, and verification modifications inherent in the editorial process.

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Witness: Edgar J. Clayton

Q - 9 Please provide the most recent evaluation conducted for each DSM program in the Company's current portfolio.

A - 9 See attachment KPCO_R_SC_1_9_Attachment1.pdf for most recent evaluation. The attachment was originally filed with DSM Case 2014-00271. Programs not included with the most recent evaluation are new, and are currently being evaluated as p art of the Process and Market Evaluation and Impact Savings reports scheduled for filing in August 2017 and August 2018, respectively.

Q - 10 Please provide the most recent three full years of reported DSM data (including program planned budgets and savings, actual spending and savings, and planned and actual participation) by program, in executable Excel format by program. Please also provide any DSM Annual Reports that were prepared for this period.

A - 10 Please refer to attachments KPCO_R_SC_1_10_Attachment1.xlsx; KPCO_R_SC_1_10_Attachment2.pdf; KPCO_R_SC_1_10_Attachment3.pdf; and KPCO_R_SC_1_10_Attachment4.pdf.

Q - 11 Please describe the cost recovery methodology (including recovery of program costs, lost revenues and incentives) upon which KPC bases its DSM rates and provide all supporting documentation.

A - 11 Kentucky Power's DSM rates are designed to recover the sum of each approved program's (a) total actual cost; plus (b) each approved program's total net lost revenue; plus (c) either an efficiency incentive, or, if program savings cannot be measured, a maximizing incentive for each program; plus (d) a credit for any over-recovery, or the recovery of any under-recovery. Kentucky Power has used this methodology to calculate the amount to recovered through its DSM rates since it first implemented its DSM portfolio in 1996.

Each program's actual cost includes the approved program's implementation costs.

The total net lost revenue for each approved program is calculated by multiplying the total energy savings produced by each program (expressed as kWh) by the net lost revenue factor for each program (expressed as $/kWh). The total energy savings produced by each program is calculated by multiplying the cumulative number of participants in each program over the lagging three-year period by the net energy savings per cumulative participant.

A cumulative participant is equal to a single participant in an approved program for the entirety of a six-month period. Participants participating only for a portion of a six-month period are "combined" to yield six months of participation. For example, two participants joining a program on April 1 of the January to June six month period equal one cumulative participant for that period.

Please refer to the Company's response to KPSC 1-5(c) in Case No. 2016-00281[1] for a more detailed explanation of the lost revenue and cumulative participants calculations. A copy of the response is attached as KPCO_R_SC 1_11_Attachment1.pdf.

The Efficiency Incentive is equal to 15 percent of the estimated net savings associated with each approved program. Estimated net savings for each program are calculated using the California Standard Practice Manual's Total Resource Cost test. If net program savings have not been calculated (because the program has not been evaluated) the Company uses the Maximizing Incentive in lieu of the Efficiency Incentive. The Maximizing Incentive is equal to five percent of the approved program's actual cost for each six month period.

The total amount to be recovered and the resulting rates are filed with the Commission at least annually. The calculation is made on Schedule C filed with the Company's application. Kentucky Power's most recent Schedule C was filed on August 15, 2016 in Case No. 2016-00281.[2] Attached as KPCO_R_SC 1_11_Attachment2.xlsx to this response is the revised version of the Schedule C filed on September 26, 2016 in Case No. 2016-00281.

The tabs labeled 2015-2nd Half and Year 2016 - 1st Half calculate the historic actual program cost, lost revenue, and incentives for the indicated periods. The tabs labeled Year 2016 - 2nd Half, and Year 2017 - 1st Half calculate the forecasted program cost, lost revenue, and incentives for the indicated periods.

The proposed DSM factors for residential and commercial customers are calculated independently on the summary tab. Using the residential factor as an example, the Company calculates a floor and ceiling rate using the values for the first and second six month forecasted periods (Column D; Year 2016 plus Col. E; Year 2017 1st Half) shown on the Summary tab. The floor factor is calculated by dividing the Cumulative Over/Under Collection amount (the sum of Column D, Line 2 plus Column E, Line 2) by the forecasted sector kWh (the sum of Column D, line 10 plus Column E, Line 10). The ceiling factor is calculated by dividing the Total To Be Recovered (the sum of Column D, Line 4 plus Column E, Row 4) by the forecasted sector kWh (the sum of Column D, line 10 plus Column E, Line 10). The Company then calculates a factor (Column E, Line 12) at the midpoint between the Floor Factor and Ceiling Factor. Kentucky Power seeks approval to use the midpoint factor.

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[1] Response to KPSC 1-5(c), *In The Matter Of: Application Of Kentucky Power Company For (1) Authority To Expand Its Appliance Recycling Program To Include Commercial Customers; (2) Authority To Recover Costs And Net Lost Revenues, And To Receive Incentives Associated With The Implementation Of The Programs (3) Report In Compliance With The Commission's March 11, 2015 Order In Case No. 2015-0027 Regarding Industrial Customers; (4) Leave To Dispense With Filing Monthly DSM Reports; and (5) All Other Required Approvals and Relief*, Case No. 2016-00281 (Ky. P.S.C. Filed September 12, 2016).

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[2] *In The Matter Of: Application Of Kentucky Power Company For (1) Authority To Expand Its Appliance Recycling Program To Include Commercial Customers; (2) Authority To Recover Costs And Net Lost Revenues, And To Receive Incentives Associated With The Implementation Of The Programs (3) Report In Compliance With The Commission's March 11, 2015 Order In Case No. 2015-0027 Regarding Industrial Customers; (4) Leave To Dispense With Filing Monthly DSM Reports; and (5) All Other Required Approvals and Relief*, Case No. 2016-00281 (Ky. P.S.C. Filed August 15, 2016).

Q - 12 If not answered in request no. 1.11 above, please provide a detailed explanation of KPC's methodology for calculating lost revenues to be recovered in rates.

A - 12 Please see the response to SC 1-11. The lost revenue factors used to calculate lost revenue for the residential and commercial sectors are calculated on the Residential Net Lost Revenue and Commercial Net Lost Revenue tabs of KPCO_R_SC_1_11_Attachment1.xls.

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Witness: John A. Rogness

Q - 13 Please provide the following information in executable Excel format: a. The DSM factors, or surcharges, for the residential and commercial customer classes for the last ten years, including each time the DSM factor changed in amount during this period. b. Referring to subpart (a), the corresponding total rate for residential and commercial customers for this same period.

A - 13 Please see KPCO_R_SC_1_13_Attachment1.xls for this response.

Q - 14 Regarding the current DSM surcharge: a. Please state how much, if any, of the current DSM surcharge is intended to make up for past under-collection of expenditures that have already been made. b. If the answer to subpart (a) is anything but zero, please state when KPC expects that collections of past expenditures will be complete such that DSM surcharge collections will be sufficient to collect an ongoing annual expenditure of $6M. c. If the answer to subpart (a) is anything but zero, please state whether KPC has considered different approaches to resolving past under-collection that would ease the rate impacts on customers and provide all supporting documentation.

A - 14 a. and b. Because money is fungible, and the factor is not allocated between the recovery of current program costs, lost revenues, incentives, and past under-recoveries, it is not possible to provide the requested information.

c. The Company has not considered a different approach. In Kentucky Power Company's Revised Exhibit 4 in Case No. 2016-00281 ("KPCO_R_1_5_Attachment1.xls") the Company forecasted that at the end of the first half of 2017 the residential programs balance would be an under-recovery of $1,507,615 and the commercial programs balance would be and under-recovery of $1,031,701. Neither of these balances can be allocated between current program expenditures, the recovery of lost revenues, incentives, and the recovery of past period under-recoveries. Please also refer to the Company's response to SC 1-15.

Q - 15 Please refer to KPC's Revised Exhibit 4 in Case No. 2016-00281 (Excel spreadsheet labeled "KPCO_R_1_5_Attachment1.xls" provided in response to the Commission's request for information, request no. 5, in that case). a. Please confirm that the "summary" tab indicates a total Residential under collection amount of $19,484,380 through the first half of 2017. b. Please confirm that the "summary" tab indicates a total Commercial under collection amount of $6,234,087 through the first half of 2017.

A - 15 a. The $19,484,380 amount shown Row (9), Column (F) and referred to in part (a) is the net total of all over-collection and under-collection balances associated with the Company's residential programs since the DSM program was implemented in 1996 through the forecasted end of the first half of 2017. It is the functional equivalent of adding each December 31 balance on a mortgage to date. It does not represent the forecasted under-recovery balance for residential programs at the end of the first half of 2017.

KPCO_R_1_5_Attachment1.xls indicates that at the end of the first half of 2017 the residential program balance is projected to be an under-recovery $1,507,615 (Row (9), Column (E)).

b. The $6,234,087 amount shown Row (22), Column (F) and referred to in part (b) is the net cumulative total of all over-collection and under-collection amounts associated with the Company's commercial programs since the DSM program was implemented in 1996 through the forecasted end of the first half of 2017. It is the functional equivalent of adding each December 31 balance on a mortgage to date. It does not represent the forecasted under-recovery balance for commercial programs at the end of the first half of 2017.

KPCO_R_1_5_Attachment1.xls indicates that at the end of the first half of 2017 the commercial program balance is projected to be an under-recovery of $1,031,701 (Row (22), Column (E)).

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Q - 16 Please provide the amount of the Residential DSM surcharge and the Commercial DSM surcharge needed to collect an ongoing annual expenditure of $6M, assuming the current ratio of residential to commercial DSM spending. a. Please provide this amount including associated lost revenues and incentives. b. Please provide this amount excluding associated lost revenues and incentives.

A - 16 Please see the response to KPCO_R_SC_1_16_Attachment1.xls.

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Witness: John A. Rogness

Q - 17 Regarding industrial customers who implement DSM measures on their own: a. Please state whether KPC recovers any costs for DSM expenditures related to these customers. b. Please state whether KPC tracks these customers' energy efficiency savings. c. Please state whether KPC is eligible for lost revenue recovery and/or incentives based on these customers' savings. If so, please state how much is KPC currently collecting.

A - 17 a. No

b. No

c. No

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Q - 18 Please state whether KPC applies net-to-gross ratios to reported savings. a. If so, please provide the ratios, by program, for the most recent three full years of reported DSM implementation, and state whether lost revenues are calculated before or after net-to-gross ratios are applied to savings estimates

A - 18 Net to gross ratios are included with program savings submitted with the DSM Status Reports. Lost revenues for all programs are calculated from net savings or after net to gross ratios are applied. Ratios for most recent three full years of DSM operation are included with the attachment KPCO_R_SC_1_18_Attachment1.xlsx.

Q - 19 Please describe the process for determining the savings for which KPC is eligible to receive incentives, including whether the savings estimate is based on third-party evaluations and whether net or gross savings are used.

A - 19 Kentucky Power follows the incentive guidelines contained in the DSM Tariff.

Incentives are a shared-savings incentive plan consisting of one of the following elements:

The efficiency incentive, which is defined as 15 percent of the estimated net savings associated with the programs. Estimated net savings are calculated based on the California Standard Practice Manual's definition of the Total Resources Cost (TRC) test, or the maximizing incentive which is defined as 5 percent of actual program expenditures if program savings cannot be measured.

A third party evaluator provides economic modeling of the DSM programs including calculation of the TRC test. The economic model includes the net present value of program benefits and cost used to determine eligible shared savings benefits.

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Witness: John A. Rogness

Q - 20 Please state whether KPC has bid any DSM into the PJM capacity market over the past five years.

A - 20 No.