VERIFICATION

The undersigned, Amy J. Elliott, being duly sworn, deposes and says she is a Regulatory Consultant Sr. in Regulatory Services for Kentucky Power, that she has personal knowledge of the matters set forth in the forgoing responses for which she is the identified witness and that the information contained therein is true and correct to the best of her information, knowledge, and belief

Amy J. Elliott

Amy J. Elliott

COMMONWEALTH OF KENTUCKY)
) Case No. 2017-00072
COUNTY OF FRANKLIN)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Amy J. Elliott, this 21st day of March 2017.

Judy K Rosquist

Notary Public

Notary ID 571144

My Commission Expires: January 23, 2021

Q - 1 Provide a summary schedule showing the calculation of E(m) and the surcharge factor for the expense months covered by the billing periods under review. Use ES Form 1.00as a model for this summary. Include the two expense months subsequent to the billing periods in order to show the over-and under-recovery adjustments for the months included in the billing period under review. Include a calculation of any additional over- or under-recovery amount Kentucky Power believes needs to be recognized for the six month review. Provide the schedule and all supporting calculations and documentation in Excel spreadsheet format with all cells and formulas intact and unprotected.

A - 1 Please refer to KPCO_R_KPSC_1_1_Attachment1.xls.

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Q - 2 The net gain or loss from sulfur dioxide and nitrogen oxide emission allowance sales are reported on ES form 300, Calculation of current Period Revenue Requirement, Third Component. For each expense month covered by the billing period under review, provide an explanation of how the gain or loss reported in the expense month was calculated and describe the transaction(s) that was/were the source of the gain or loss.

A - 2 Please refer to KPCO_R_KPSC_1_2_Attachment1.xls.

Q - 3 Reference ES Forms 3.11A and 3.11B for each expense month covered by the billing period under review.

a. For each month in the six-month review period, provide the calculation that supports the total cost of allowances consumed that is then carried to ES Form 3.13.

b. Provide an explanation and the reasons for the fluctuations in the monthly average cost of allowances determined in 3.a.

A - 3 a-b. Please refer to KPCO_R_PSC_1_3_Attachment1.xls. There are two steps to the calculation. The first step determines the average weighted cost per allowance for the total inventory for the Company. The second step, as demonstrated on the "allocation" tab of KPCO_R_PSC_1_3_Attachment1.xls, allocates allowance consumption by plant based on emitted tons.

This calculation methodology is consistent with the calculation methodology used in by Company in its environmental surcharge filings prior to this review period and reviewed in prior environmental surcharge review cases.

Q - 4 Refer to ES Form 3.13, Mitchell Environmental Costs for each expense month covered by the billing period under review. Explain the reason(s) for any change in the expense levels from month to month if that change is greater than plus or minus 10 percent for each of the following operating and maintenance costs listed:

a. Line14 MonthlyDisposal{5010000)

b. Line15 MonthlyUreaExpense{5020002)

c. Line16 MonthlyTronaExpense(5020003)

d. Line17 MonthlyLimeStoneExpense(5020004)

e. Line18 MonthlyPolymerExpense(5020005)

f. Line19 MonthlyLimeHydrateExpense(5020007)

g. Line20 MonthlyWVAirEmissionFee

h. Line26 MonthlyFGD MaintenanceExpense

i. Line27 MonthlyNon-FGDMaintenanceExpense

A - 4 Please refer to KPCO_R_PSC_1_4_Attachment 1.xls for the variation analysis. Variation in individual expenses, or, where appropriate, groups of expenses, during the review period are described below.

a. <u>Monthly Disposal</u>. Monthly Disposal expense includes revenues derived from sales of gypsum to the neighboring wallboard plant. The variations during the review period reflect monthly changes in the wallboard plant's demand for gypsum from the Mitchell generating station.

b-f. Consumables. The consumable costs reflected on ES Form 3.13 for the September 2016 expense month inadvertently included the entirety of the Mitchell Plant consumable costs rather than Kentucky Power's 50% share. A correcting entry was included in the calculation of the surcharge factor for the February 2017 expense month.

b & d. Urea and Limestone. Usage of urea and limestone at Mitchell also varies directionally (but not necessarily directly in order of magnitude) with changes in the level of plant operation including variations resulting from outages and deratings. For example, a planned outage at Mitchell Unit 1 during May 2016, resulted in reduced urea and limestone expense during May. When generation increased in June, urea and limestone consumption also increased.

c & f. Trona and Lime Hydrate. Trona and lime hydrate are expensed upon delivery to the plant. The monthly variations in trona and lime hydrate expense reflect the monthly variations in the deliveries of those two consumables to the plant.

e. Polymer. There were no polymer expenses booked to account 5020005 during the review period.

g. Air Emission Fees. The Company receives its invoice for West Virginia Department of Environmental Protection air emission fees once annually. The June 2016 invoice reflected a higher emission fee amount. This increase includes an under-recovery of air emission fees from the prior year.

h & i. Maintenance Expense. The monthly variations in maintenance expense result primarily from variability in maintenance activities at the plant. Plant management makes maintenance decisions to ensure the safe, reliable, and compliant operation of the Mitchell Plant.

More specifically, maintenance events during the review period that led to monthly variability included:

Expense Month	FGD Maintenance Activity	Amount (approx.)
May	Casing leak repairs on absorber recycle pump	$66,000.00
September/October	Inspection of Unit 1 Induction Draft Fan	$51,000.00
September/October	Service Water Piping Repairs	$49,000.00
September/October	FGD Inspections	$23,000.00

Similarly, for non-FGD Maintenance expenses, variability in expense was a result of variability in maintenance activity. In the May 2016 expense month, maintenance expense was reduced because of the increased maintenance activities during the prior month's maintenance outage on Unit 2. Additional maintenance events during the review period that led to monthly variability included:

Expense Month	Non-FGD Maintenance Activity	Amount (approx.)
September	Precipitator Inspection & Repairs	$76,000.00
October	Precipitator Inspection & Repairs	$247,000.00
September/October	Casing Leak Repairs	$27,000.00
September/October	Routine Monitoring Equipment Repairs	$10,000.00

Additionally, the Company's total Non-FGD maintenance expense for the July 2016 expense month inadvertently included the entire annual amount of air emission fees, approximately $132,000. Because the Company recovers 1/12 of its annual air emission fees each month, the Company should have excluded the full amount from its non-FGD maintenance expenses. This amount was credited against expenses in the February 2017 expense month. Customers will see the effects of this credit in their April billing statements.

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Q - 5 Refer to ES Form 3.20, Rockport Environmental Costs for each expense month covered by the billing period under review. explain the reason(s) for any change in the expanse levels from month to month if that change is greater than plus or minus 10 percent for each of the following operating and maintenance costs listed::

a. Line10 MonthlyBrominatedSodiumBicarbonate(5020028)

b. Line11 MonthlyActivatedCarbon(5020008)

c. Line12 MonthlyINAirEmissionFee

d. Line15 MonthlyMaintenanceExpense

A - 5 Please refer to KPCO_R_PSC_1_5_Attachment1.xls for the variation analysis.

a&b. Consumables. Consumable usage generally varies directionally (but not necessarily directly in order of magnitude) with changes in the level of plant operation, including variations resulting from outages and deratings. Relative to the previous month, generation was down in The consumable variation greater than plus or minus 10% follows this generation profile. Reduced generation in May and June can be attributed to maintenance outages on Rockport Unit 1. Likewise, there was planned outage on Rockport Unit 1 during September 2016.

c. Air Emission Fees. There was no variance in monthly air emission fees paid to IDEM during the review period.

d. Maintenance Expense. The monthly variations in maintenance expense result primarily variability in maintenance activities at the plant. Plant management makes maintenance decisions to ensure the safe, reliable, and compliant operation of the Rockport Plant.

More specifically, maintenance events during the review period that led to increased monthly variability included:

Expense Month	Maintenance Activity	Amount (approx.)
June	ACI System feeder assembly repairs	$40,000.00
June	Precipitator roof repairs	$30,000.00
September	Precipitator internal inspections	$50,000.00

Q - 6 Provide the 12-month average residential customer's monthly usage as of October 31, 2016. Based on this usage amount, provide the dollar impact any over-or under-recovery will have on the average residential customer's bill for the required recovery period. Provide all calculations in the electronic spreadsheet format with all intact and unprotected and all rows and columns accessible.

A - 6 The 12-month average residential customer's monthly usage as of October 31, 2016 was 1,267 kWh. The Company is not proposing any over- or under-recovery adjustments in this proceeding. The Company did make a correcting entry to the February 2017 expense month to credit customers for inadvertently including (1) the full year's WV DEP air emission fee in the July 2016 expense month and (2) the full costs of consumables used at Mitchell (not the Company's 50% share) in the September 2016 expense month. Based on the October 2016 average residential customer monthly usage and using October 2016 adjustment factors, the impact of this credit would have been $1.36.

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Q - 7 If the response to Item 1 to this request proposes additional adjustments to environmental costs for the review period, explain whether the adjustments impact the environmental costs assigned to non-associated utilities under the System Sales Clause. Provide a detailed analysis of any necessary adjustments to the environmental costs assigned to non-associated utilities resulting from the adjustments proposed in Item 1.

A - 7 No adjustment is being proposed in the response to Item No.1. As described in the Company's response to KPSC 1-6, the made a correcting entry to its February 2017 expense month calculation. The Company included its non-associated utilities monthly environmental costs a corresponding adjustment of ($8,101). The amount was calculated by multiplying the correcting entry amount ($405,065) by 2% the percentage of non-associated utilities revenues for the expense month.