

ES FORM 1.00

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Net Group E(m) and
Group Environmental Surcharge Billing Factors
For the Expense Month of**

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 16 =

Group 1 ES Billing Factor -- ES Form 1.10, line 18 =

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 16 =

Group 2 ES Billing Factor -- ES Form 1.10, line 18 =

Effective Date for Billing:

Submitted by: _____

Title: Manager, Revenue Requirement/Cost of Service

Date Submitted:

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Calculation of Total E(m) and
Group Surcharge Billing Factors

For the Expense Month of

Calculation of Total E(m)

$E(m) = [(RB / 12) (ROR + (ROR - DR)(TR / (1 - TR)))] + OE - BAS + BR$, where

RB = Environmental Compliance Rate Base
ROR = Rate of Return on the Environmental Compliance Rate Base
DR = Debt Rate (both short-term and long-term debt)
TR = Composite Federal & State Income Tax Rate
OE = Pollution Control Operating Expenses
BAS = Total Proceeds from By-Product and Allowance Sales
BR = Beneficial Reuse Operating Expenses

	Pre-2020 Environmental Compliance Plans	2020 Environmental Compliance Plan
(1) RB	=	
(2) RB / 12	=	
(3) $(ROR + (ROR - DR) (TR / (1 - TR)))$	=	
(4) OE	=	
(5) BAS	=	
(6) BR	=	
(7) E(m) (2) x (3) + (4) - (5) + (6)	=	
(8) Total E(m) = sum of Pre-2020 E(m) + 2020 E(m)	=	

Calculation of Adjusted Net Jurisdictional E(m)

(9) Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=	
(10) Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(8) x (9)]	=	
(11) Adjustment for (Over)/Under-collection pursuant to Case No.	=	
(12) Prior Period Adjustment (if necessary)	=	
(13) Revenue Collected through Base Rates	=	
(14) Adjusted Net Jurisdictional E(m) [(10) + (11) + (12) - (13)]	=	

Calculation of Group Environmental Surcharge Billing Factors

	<u>GROUP 1</u> <u>(Total Revenue)</u>	<u>GROUP 2</u> <u>(Net Revenue)</u>
(15) Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	
(16) Group E(m) [(14) x (15)]	=	
(17) Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	
(18) Group Environmental Surcharge Billing Factors [(16) ÷ (17)]	=	

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Revenue Requirements of Environmental Compliance Costs
For the Expense Month of

Determination of Environmental Compliance Rate Base

	Pre-2020 Environmental Compliance Plans	2020 Environmental Compliance Plan
Eligible Pollution Control Plant		
Eligible Pollution CWIP Excluding AFUDC		
Subtotal		
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33, and 2.34		
Cash Working Capital Allowance		
Net Unamortized Closure Cost Balance ¹		
Subtotal		
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant		
Pollution Control Deferred Income Taxes		
Subtotal		
Environmental Compliance Rate Base		

Determination of Pollution Control Operating Expenses

	Pre-2020 Environmental Compliance Plans	2020 Environmental Compliance Plan
Monthly Operations & Maintenance Expense		
Monthly Depreciation & Amortization Expense		
Less: Investment Tax Credit Amortization		
Monthly Taxes Other Than Income Taxes - Eligible Plant		
Monthly Taxes Other Than Income Taxes - Closure Costs		
Amortization of Monthly Closure Costs		
Amortization of Excess ADIT with gross-up		
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33, and 2.34		
Monthly Surcharge Consulting Fees		
Construction Monitoring Consultant Fee		
Total Pollution Control Operations Expense		

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	
Net Beneficial Reuse Operations Expense	

Note 1: The net unamortized closure cost balance is comprised of CCR closure cost expenditures less accumulated amortization, accumulated deferred income taxes and amount in base rates.

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Amortization of Monthly CCR Closure Costs

For the Month Ended:

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Description	Accumulated CCR Closure Costs	Accumulated Amortization (Prior Month)	Current Month Amortization	Accumulated Amortization (Current Month)	Accumulated Deferred Income Taxes (ADIT)	Unamortized CCR Closure Cost Balance (Net of ADIT)
			$[(2)-(3)] / \text{Remaining Amort Months}$	(3)+(4)		(2)-(5)-(6)
2016 Plan: Project 29 - Mill Creek Station Project 30 - Trimble County Station						
Net Total - All Projects:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note 1: The Accumulated Deferred Income Taxes (ADIT) includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Plant, CWIP & Depreciation Expense

For the Month Ended:

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Description	Eligible Plant In Service	Eligible Accumulated Depreciation	CWIP Amount Excluding AFUDC	Eligible Net Plant In Service	Deferred Tax Balance as of Date	Monthly ITC Amortization Credit	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan: Project 22 - Cane Run CCP Storage (Landfill - Phase I) [CANCELLED] Project 23 - Trimble County Ash Treatment Basin (BAP/GSP) Project 24 - Trimble County CCP Storage (Landfill - Phase I) Project 25 - Beneficial Reuse								
Subtotal								
Less Retirements and Replacement resulting from implementation of 2009 Plan								
Net Total - 2009 Plan:								
2011 Plan: Project 26 - Mill Creek Station Air Compliance Project 27 - Trimble County Unit 1 Air Compliance								
Subtotal								
Less Retirements and Replacement resulting from implementation of 2011 Plan								
Net Total - 2011 Plan:								
2016 Plan: Project 28 - Supplemental Mercury Control Project 29 - Mill Creek New Process Water Systems Project 30 - Trimble County New Process Water Systems								
Subtotal								
Less Retirements and Replacement resulting from implementation of 2016 Plan								
Net Total - 2016 Plan:								
2020 Plan: Project 31 - Mill Creek ELG Water Treatment System and Diffuser Project 32 - Trimble County ELG Water Treatment System								
Subtotal								
Less Retirements and Replacement resulting from implementation of 2020 Plan								
Net Total - 2020 Plan:								
Net Total - All Plans:								

Note 1: Trimble County projects for the 2009 Plan and 2020 Plan are proportionately shared by KU at 48% and LG&E at 52%.

Note 2: Effective with the September 2012 expense month, Project 22 is cancelled and the previous CWIP balance is included on ES Form 2.50 as an expense for the September 2012 expense month.

Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

Inventory of Emission Allowances

For the Month Ended:

Vintage Year	Number of Allowances				Total Dollar Value Of Vintage Year				Comments and Explanations
	SO ₂ CAIR	SO ₂ CSAPR	NO _x Ozone Season	NO _x Annual	SO ₂ CAIR	SO ₂ CSAPR	NO _x Ozone Season	NO _x Annual	
Current Year									
2021									
2022									
2023									
2024									
2025									
2026									
2027									
2028									
2029									
2030									
2031									
2032									
2033									
2034									
2035									
2036									
2037									
2038									
2039									
2040									
2041 - 2050									

In the "Comments and Explanation" Column, describe any allowance inventory adjustment other than the assignment of allowances by EPA. Inventory adjustments include, but are not limited to, purchases, allowances acquired as part of other purchases, and the sale of allowances.

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Inventory of CAIR Emission Allowances (SO₂) - Current Vintage Year

For the Expense Month of

	Beginning Inventory	Allocations/Purchases	Utilized (Coal Fuel)	Utilized (Other Fuels)	Sold	Ending Inventory	Allocation, Purchase, or Sale Date & Vintage Years
TOTAL EMISSION ALLOWANCES IN INVENTORY, ALL CLASSIFICATIONS							
Quantity							
Dollars							
\$/Allowance							
ALLOCATED ALLOWANCES FROM EPA: COAL FUEL							
Quantity							
Dollars							
ALLOCATED ALLOWANCES FROM EPA: OTHER FUELS							
Quantity							
Dollars							
ALLOWANCES FROM PURCHASES:							
From Market:							
Quantity							
Dollars							
\$/Allowance							
From KU							
Quantity							
Dollars							
\$/Allowance							

Emission Allowance Expense for Other Power Generation is excluded from expense reported on Form 2.00 for recovery through the monthly billing factor

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Inventory of CSAPR Emission Allowances (SO₂) - Current Vintage Year

For the Expense Month of

	Beginning Inventory	Allocations/ Purchases	Utilized (Coal Fuel)	Utilized (Other Fuels)	Sold	Ending Inventory	Allocation, Purchase, or Sale Date & Vintage Years
TOTAL EMISSION ALLOWANCES IN INVENTORY, ALL CLASSIFICATIONS							
Quantity							
Dollars							
\$/Allowance							
ALLOCATED ALLOWANCES FROM EPA: COAL FUEL							
Quantity							
Dollars							
ALLOCATED ALLOWANCES FROM EPA: OTHER FUELS							
Quantity							
Dollars							
ALLOWANCES FROM PURCHASES:							
From Market:							
Quantity							
Dollars							
\$/Allowance							
From KU							
Quantity							
Dollars							
\$/Allowance							

Emission Allowance Expense for Other Power Generation is excluded from expense reported on Form 2.00 for recovery through the monthly billing factor

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Inventory of Emission Allowances (NOx) - Ozone Season Allowance Allocation

For the Expense Month of

	Beginning Inventory	Allocations/ Purchases	Utilized (Coal Fuel)	Utilized (Other Fuels)	Sold	Ending Inventory	Allocation, Purchase, or Sale Date & Vintage Years
TOTAL EMISSION ALLOWANCES IN INVENTORY, ALL CLASSIFICATIONS							
Quantity							
Dollars							
\$/Allowance							
ALLOCATED ALLOWANCES FROM EPA: COAL FUEL							
Quantity							
Dollars							
ALLOCATED ALLOWANCES FROM EPA: OTHER FUELS							
Quantity							
Dollars							
ALLOWANCES FROM PURCHASES:							
From Market:							
Quantity							
Dollars							
\$/Allowance							
From KU:							
Quantity							
Dollars							
\$/Allowance							

Emission Allowance Expense for Other Power Generation is excluded from expense reported on Form 2.00 for recovery through the monthly billing factor.

ES FORM 2.34

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Inventory of Emission Allowances (NOx) - Annual Allowance Allocation

For the Expense Month of

	Beginning Inventory	Allocations/Purchases	Utilized (Coal Fuel)	Utilized (Other Fuels)	Sold	Ending Inventory	Allocation, Purchase, or Sale Date & Vintage Years
TOTAL EMISSION ALLOWANCES IN INVENTORY, ALL CLASSIFICATIONS							
Quantity							
Dollars							
\$/Allowance							
ALLOCATED ALLOWANCES FROM EPA: COAL FUEL							
Quantity							
Dollars							
ALLOCATED ALLOWANCES FROM EPA: OTHER FUELS							
Quantity							
Dollars							
ALLOWANCES FROM PURCHASES:							
From Market:							
Quantity							
Dollars							
\$/Allowance							
From KU:							
Quantity							
Dollars							
\$/Allowance							

Emission Allowance Expense for Other Power Generation is excluded from expense reported on Form 2.00 for recovery through the monthly billing factor.

ES FORM 2.40

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
O&M Expenses and Determination of Cash Working Capital Allowance

For the Month Ended:

Environmental Compliance Plan		
O&M Expenses	Pre-2020 Environmental Compliance Plans	2020 Environmental Compliance Plan
11th Previous Month		
10th Previous Month		
9th Previous Month		
8th Previous Month		
7th Previous Month		
6th Previous Month		
5th Previous Month		
4th Previous Month		
3rd Previous Month		
2nd Previous Month		
Previous Month		
Current Month		
Total 12 Month O&M		

Determination of Working Capital Allowance		
12 Months O&M Expenses		
One Eighth (1/8) of 12 Month O&M Expenses	1/8	1/8
Pollution Control Cash Working Capital Allowance		

ES FORM 2.50

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Pollution Control - Operations & Maintenance Expenses
For the Month Ended:

O&M Expense Account	Mill Creek	Trimble County	Total
2009 Plan			
502013 - ECR Landfill Operations			
512107 - ECR Landfill Maintenance			
Adjustment for CCP Disposal in Base Rates (ES Form 2.51)			
Net 2009 Plan O&M Expenses			
2011 Plan			
502056 - ECR Scrubber Operations			
512055 - ECR Scrubber Maintenance			
506159 - ECR Sorbent Injection Operation			
506152 - ECR Sorbent Reactant - Reagent Only			
512152 - ECR Sorbent Injection Maintenance			
506156 - ECR Baghouse Operations			
512156 - ECR Baghouse Maintenance			
506151 - ECR Activated Carbon			
Adjustment for Base Rates Baseline Amounts			
Total 2011 Plan O&M Expenses			
2016 Plan			
506153 - ECR Liquid Injection - Reagent Only			
Total 2016 Plan O&M Expenses			
2020 Plan			
502015 - ECR Effluent Water Chemicals			
502017 - ECR Effluent Water Operations			
512157 - ECR Effluent Water Maintenance			
Total 2020 Plan O&M Expenses			
Current Month O&M Expense for All Plans			

Note 1: Trimble County projects for the 2009 Plan and 2020 Plan are proportionately shared by KU at 48% and LG&E at 52%.

ES FORM 2.51

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**CCP Disposal Facilities Expenses
For the Month Ended:**

On-Site CCP Disposal O&M Expense		Trimble County
Existing CCP Disposal Facilities (Pre 2009 Plan Project)		
(1)	12 Months Ending with Expense Month	
(2)	Monthly Amount [(1) / 12]	
2009 Plan Project		
(3)	Monthly Expense	
Total Generating Station		
(4)	Monthly Expense [(2) + (3)]	
Base Rates		
(5)	Annual Expense Amount (12 Mo Ending with Last Test Year)	
(6)	Monthly Expense Amount [(5) / 12]	
(7)	Total Generating Station Less Base Rates [(4) - (6)]	
(8)	Less 2009 Plan Project [(7) - (3)]	
If Line (8) Greater than Zero, No Adjustment		
If Line (8) Less than Zero, Adjustment for Base Rates		
Adjustment for Base Rate Amount (to ES Form 2.50)		

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%.

Note 2: ES Form 2.51 will not be utilized until O&M costs associated with the 2009 Plan are incurred.

ES FORM 2.61

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Beneficial Reuse Opportunities
For the Month Ended:**

On-Site CCP Disposal O&M Expense	Mill Creek	Trimble County	Total
Existing Beneficial Reuse Opportunities (Pre 2009 Plan Project)			
(1) 12 Months Ending with Expense Month			
(2) Monthly Amount [(1) / 12]			
2009 Plan Project 25			
(3) Monthly Amount (Expense/Revenue)			
Total Beneficial Reuse - Generating Station			
(4) Monthly Expense [(2) + (3)]			
Beneficial Reuse in Base Rates			
(5) Annual Expense Amount (12 Mo Ending with Last Test Year)			
(6) Monthly Expense Amount [(5) / 12]			
(7) Total Generating Station Less Base Rates [(4) - (6)]			
(8) Less 2009 Plan Project 25 [(7) - (3)]			
If Line (8) Greater than Zero, No Adjustment			
If Line (8) Less than Zero, Adjustment for Base Rates			
Adjustment for Base Rate Amount (to ES Form 2.60)			

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%.

Note 2: \$0 is included in the Mill Creek beneficial reuse in base rates (Line 5) as filed in Case Number 2018-00295.

ES FORM 3.10

**LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Reconciliation of Reported Revenues**

For the Month Ended:

	Revenues per Form 3.00	Revenues per Income Statement
Kentucky Retail Revenues		
(1) Base Rates (Customer Charge, Energy Charge, Demand Charge)		
(2) Fuel Adjustment Clause including Off System Sales Tracker		
(3) DSM		
(4) Environmental Surcharge		
(5) CSR Credits		
(6) EDR Credits		
(7) Total Kentucky Jurisdictional Revenues for Environmental Surcharge Purposes =		
Non -Jurisdictional Revenues		
(8) InterSystem (Total Less Transmission Portion Booked in Account 447)		
(9) Total Non-Jurisdictional Revenues for Environmental Surcharge Purposes =		
(10) Total Company Revenues for Environmental Surcharge Purposes =		
Jurisdictional Allocation Ratio for Current Month [(7) / (10)] =		
Reconciling Revenues		
(11) Brokered		
(12) InterSystem (Transmission Portion Booked in Account 447)		
(13) Unbilled		
(14) Miscellaneous		
(15) Total Company Revenues per Income Statement =		

NOTE (1): Base Rates (Line 1) includes the TCJA credit of \$0.00 for this month.

NOTE (2): Revenues per Form 3.00 do not include solar and therefore will not always reflect Revenues per Income Statement.