

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

ELECTRONIC APPLICATION FOR REVISED)	
QUARTERLY GAS COST RECOVERY SCHEDULES)	CASE NO.
FOR KENTUCKY FRONTIER GAS, LLC)	2023-00067

**RESPONSES TO COMMISSION STAFF'S
SECOND REQUEST FOR INFORMATION TO
KENTUCKY FRONTIER GAS, LLC DATED AUGUST 15, 2023**

Filed: August 30, 2023

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION


IN THE MATTER OF:

ELECTRONIC APPLICATION FOR REVISED)	
QUARTERLY GAS COST RECOVERY)	CASE NO.
SCHEDULES OF KENTUCKY)	2023-00067
FRONTIER GAS, LLC)	


VERIFICATION OF STEVEN SHUTE

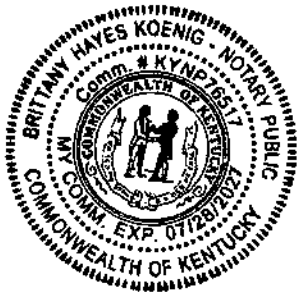
COMMONWEALTH OF KENTUCKY)
)
 COUNTY OF FAYETTE)

Steven Shute, Sole Member of Kentucky Frontier Gas, LLC, being duly sworn, states that he has supervised the preparation of the Responses to Staff's Second Request for Information in the above-referenced case and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.


 Steven Shute

The foregoing Verification was signed, acknowledged and sworn to before me this 30th day of August, 2023, by Steven Shute.


 Notary Commission No. KYNP76517
 Commission expiration: 7-28-2027



KENTUCKY FRONTIER GAS, LLC
PSC CASE NO. 2023-00067
RESPONSE TO REQUEST FOR INFORMATION

PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 1

RESPONSIBLE PARTY: Steve Shute

Request 1. Refer to Kentucky Frontier's response to Commission Staff's First Request for Information (Staff's First Request), Item 2b. Explain why Kentucky Frontier has not proposed modifications to its Pipeline Replacement Program (PRP) and the PRP surcharge since Kentucky Frontier expanded the PRP program in its last general rate Case No. 2017-00263.¹

Response 1.

In its last rate case in 2017, Frontier asked the Commission to increase the PRP surcharge as established in Case No. 2011-00443, from \$1.25 to \$2.00 per meter per month. Frontier also asked the Commission to increase its monthly service charge from \$10 to \$16 per meter per month like similar utilities in Kentucky, and to enable Frontier to make payroll in the summer months with negligible gas volume sales.

Instead, without any consultation on what was possible, the Commission ordered Frontier to increase its PRP by 4x to \$5.00 per month, and increase the monthly service fee to \$13 not \$16 per month. Frontier was forced to allocate employees, trucks and equipment directly to PRP instead

¹ Case No. 2017-00263, *Electronic Application of Kentucky Frontier Gas, LLC for Alternative Rate Adjustment* (filed June 30, 2017).

of regular utility work funded by general rates. As a result, the unit costs (\$ per foot) of PRP projects were necessarily quite a bit higher because they were no longer subsidized by utility revenue.

The current PRP surcharges and expenditures of about \$260,000 are about all we can do, with present forces. Frontier is constantly running leakage surveys, finding leaks and repairing them. It's not clear how Frontier could do more, with more funding. A contractor could run our leakage surveys (at 2-300% of current cost), but it's not clear they would find more leaks, faster. Contractors could install replacement pipe (again, at 200% of our cost), but Frontier doesn't have a ready backlog of PRP projects until more leaks are found.

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PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 2

RESPONSIBLE PARTY: Steve Shute

Request 2. Refer to Kentucky Frontier's response to Staff's First Request, Item 3, page 2 of 6. Explain whether Kentucky Frontier attempted to recoup the losses from the damaging party for the gas leaked from the line or for the cost related to repairing the damage made to the line.

Response 2.

The Sigma damage and leak was discovered just a few days before the response to the Staff's First Request. The estimate of gas lost was made for the response. This damage was reported to the Commission by Frontier, and to Frontier's knowledge has not yet been investigated by the Commission. The digging was either by the landowner (who lives next door) or someone in their direct control. When the actual excavator is known, Frontier asks the Commission to levy the maximum \$5,000 penalty against the excavator for no 811 call, since (from past history on this land) this is likely a repeat offender.

With a Commission finding and substantial fine against the perpetrator, then Frontier might have a slim chance at winning a judgement in Magoffin County Court. Frontier would have to spend several years of delays and \$20,000 or more in litigation cost for \$12,000 in lost gas and repairs. Without a Commission action, Frontier has zero chance in any such court action.

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PSC’S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 3

RESPONSIBLE PARTY: Steve Shute

Request 3. Refer to Kentucky Frontier’s response to Staff’s First Request, Item 3, page 1 of 6. Provide a detailed breakdown of the steps Kentucky Frontier has taken over the last five-years to locate and map its gas system lines.

Response 3.

In January 2018 after the PRP surcharge was greatly increased in Case No. 2017-00263, Frontier reported its PRP strategy to the Commission: “Frontier hasn’t attempted to forecast specific projects. The ongoing leak surveys are the basis for prioritizing replacements. This allows for a timely reaction to potential safety issues and reduction in line loss. Frontier has developed GIS base maps for the Belfry, Mike Little and Public Gas systems that are the worst offenders for L&U. Over the next few weeks, Frontier will update these GIS maps (that are based on 1980s drawings) with the current pipe size & material, then add leak data from the 2016 and 2017 leak surveys, and line losses by segment (if known). Using these maps and leak data, Frontier will prioritize replacement projects in order of their expected “yield” of reduced volume of lost gas, or enhanced safety in densely populated areas. We will then assign 2018 projects to company and contractor forces. We expect to replace about 5 miles of steel pipe in 2018, but the final footage will greatly depend on conditions along each segment.”

From a response to the Commission order of 11/16/22 in Case 2022-00363 on 811 locate calls:

“Frontier purchased new specialized line locating equipment to increase the accuracy of locating unmapped or un-tonable lines. The GIS mapping system is consistently being updated as unknown lines are found during the regular course of work or on construction jobs. Marker balls or subsurface line markers are placed in the ground when un-tonable lines are uncovered, and are recorded in the mapping system. Kentucky Frontier Gas purchased a vacuum excavator for projects where all traditional methods of line locating have failed. The use of the vac trailer has shown to be a safe and effective way to remove ground cover in areas of where a gas line is suspected to be. The change of policy and implementation of new procedures has resulted in a significant decrease in line damages due to unmapped or un-tonable lines.”

In consolidating a dozen tiny gas companies regulated by the Commission, Frontier received almost zero construction or operating records. For most systems, Frontier got paper copies of original maps from the 1960s or 1980s, with few if any subsequent updates. Frontier captured these maps in ArcGIS as well as possible, and has since made many improvements to the use of the GIS database:

- Line segment alignment, pipe size and material of original lines, or any replacements;
- Line location details as found in recent 811 locates, marker balls, and other cues for lines without marker wire;
- GPS locations of nearly all meters relative to the structure; this also helps to locate and define service lines, which weren't all on the old maps;
- Leak survey results and leak locations by year; helps to plan & prioritize PRP segments;
- Field and office notes on the history of any segment or feature;

- GIS smartphone field application distributed to all operating employees, to indicate the location and nature of all known Frontier facilities.

The system operators have taken an active role in continually improving the GIS database, in order to know what's out there and to improve our detection of leaks and reduction of third-party line damage.

KENTUCKY FRONTIER GAS, LLC
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RESPONSE TO REQUEST FOR INFORMATION

PSC’S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 4

RESPONSIBLE PARTY: **Steve Shute**

Request 4. Refer to Application, pages 2–4, paragraphs 6–7, 9–10.

- a. Explain how Kentucky Frontier’s proposed method for calculating the Balancing Adjustment differs from the method described in paragraph 9 of the Application.
- b. Explain in detail how Kentucky Frontier’s proposed method for calculating the Balancing Adjustment more accurately “compensates for any under or over collections which have occurred as a result of prior adjustments.”

Response 4a.

The prescribed current GCR procedure has never kept nor presented the actual balance of the Gas Balancing Account in the public record. The proposed GBA method will track the actual balance of the GBA, will react more quickly with every quarterly filing, and should mitigate large under-recovery and over-recovery balances that can run for years.

Response 4b.

The proposed GBA method considers the current balance, whether over or under-recovered, whether recent or distant, and amortizes with a Balance Adjustment over the next 12 months of

sales. The GBA balance is projected to the end of the current rate cycle, not the last one. The last June 30 filing used April 30 figures, where the GBA method projects to July 31. In future quarterly filing, the updated GBA uses all known actual figures and good projections using known index prices and estimated volumes. The new GBA is again amortized for 12 months, which can be a small or large change to the present Balance Adjustment, but is an accurate snapshot of where GCR rates should be.

The current GCR method has many inaccuracies. The unrealistic 5% L&U is further worsened by applying the same penalty to the former Public Gas volumes, with low L&U but very high gas cost. The AA/BA adjustments can be substantial, but still have the overhang of the prior 5 quarters still setting the rates. (In the last filing for rates through October 2023, the AA/BA still included adjustments from May 2022.) In rapidly changing gas markets, this is a disaster.

As can be seen on the long-term GBA table in the proposed method XLS file, the GBA balance went negative in November 2020, but the GCR method continued to impose large negative surcharges for 9 more months, ending at \$235,000 under-recovered.

The BA surcharge went positive in August 2021, but was reduced by the residual negative quarters that held back recovery. By August 2022, under-recovery was at a company-threatening \$600,000, and Frontier was forced to propose this change in methods. In any of the 6 quarterly filings from November 2021 to August 2022, the proposed GBA method would have been more nimble in making timely adjustments to avoid this large balance.

The improved timing of the proposed GBA keeps the running balance in the quarterly filings and allows the customers to view any adjustments required in billing in more relevant nexus with the changes in the gas market as well. The proposed GBA method will make

adjustments next quarter for where we are headed, today. The old GCR method is still carrying grievances from 17 months ago.

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PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 5

RESPONSIBLE PARTY: Steve Shute

Request 5. Refer to the Application, page 10, paragraph 14. Explain how Kentucky Frontier selected 7.5 percent as the proposed gas loss limit.

Response 5.

The Commission unilaterally imposed a 5% limit without evidence whether Frontier was capable of reaching that threshold in any reasonable timeframe. In Response 8, the average actual system loss for 2018-22 was about 8%. Frontier will stipulate a limit of 7.5% as a reasonable goal for the company, absent numerous third-party incidents such as the one discussed in Response 3.

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RESPONSE TO REQUEST FOR INFORMATION

PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 6

RESPONSIBLE PARTY: Steve Shute

Request 6. Provide example calculations, in as straightforward a manner as possible and using simple example numbers that show how four quarterly GCA filings would be calculated and how subsequent proposed Balancing Adjustments incorporate recoveries from previous adjustments.

Response 6.

Kentucky Frontier would be available to meet for an informal conference to explain any element of the proposal to Commission Staff, if needed. Two examples are given, in PDF and XLS form attached:

- 1) The Simple version, attached as Exhibit A, is a made-up run from November 2022 to July 2023. Every month has 1000 mcf of sales, with varying volumes of purchased gas at \$5 per mcf. In the first quarter we under-recover by \$500 and make a new Rate Determination and GBA update for the February 2023 rates. The ending quarterly balance is amortized with a surcharge (+/-) over the next 12 months of sales. This example continues with 3 more GBA rate adjustments for May, August and November 2023. The running GBA calculation shows the end balance for each quarter (shaded blue), that is carried to the quarterly Rate Determination sheet to calculate a surcharge.

- 2) The Comparison version, attached as Exhibit B, uses the same method, with actual numbers from Frontier's operation November 2022 to July 2023, with a few estimates for gas costs that aren't finalized. As with the Simple model, the running GBA calculation shows the ending balance for each quarter (shaded blue), that is carried to the quarterly Rate Determination sheet to calculate a surcharge. As shown on the far right of the GBA table, the current GCA balances are slower to react to changes, and is currently \$175,000 further out than the GBA method would have wrought.

The current GBA balance is the cumulative total of every previous transaction, like a bank balance reflects every past check and deposit. On either XLS model, making any change anywhere trickles immediately down to the current balance, and will be addressed in the next quarterly surcharge.

Frontier has several suppliers that don't bill timely, or change their measurement figures after audit, often months later. These revisions are not refunds, and are difficult to capture in the current GCR method, but are easy to incorporate into the GBA model.

The current GCR method smears out transactions over 5 quarters and multiple GCA filings, but nobody in the Company or Commission or Public ever has an indication of where we are, with the actual cumulative Gas Balance.

Work on this case has turned up an unexpected concern. In Case No. 2023-00222, Frontier filed Schedule I for the current August rates, attached as Exhibit C. As noted here the GCR method has 2 huge quarterly AA/BA adjustments for almost \$3 per mcf. While these work through 4 GCR filings, Frontier would have to exactly predict gas costs, then operate on \$1 total margin over the next 6-9 months including winter. On a leash this tight, Frontier *may struggle to make payroll*. The GBA method gets to the same result in the same 12 months, with a much softer \$1.13 /mcf adjustment.

The current GCR method is cumbersome, confusing and slow to react to changing conditions for Kentucky Frontier.

EXHIBIT A

Kentucky Frontier Gas SCHEDULE III

Month	Purch Mcf	Purch	Sales Mcf	Gas Sales	O/U Recov Cost	Cum O/U Recov GBA Balance	Expected Gas Cost \$/MCF	AA + BA Adjst	Gas Cost Reconcil'n	GCA Rate \$/Mcf
Oct-22						ending balance \$0				
Nov-22	1,100	\$5,500	1,000	\$5,000	(\$500)	(\$500)	\$ 5.000	\$ -	\$ 5.000	
Dec-22	950	\$4,750	1,000	\$5,000	\$250	(\$250)				
Jan-23	1,050	\$5,250	1,000	\$5,000	(\$250)	(\$500)				
Feb-23	950	\$4,750	1,000	\$5,292	\$542	\$42	\$ 5.250	\$ 0.042	\$ 5.292	
Mar-23	1,050	\$5,250	1,000	\$5,292	\$42	\$84				
Apr-23	1,100	\$5,500	1,000	\$5,292	(\$208)	(\$124)				
May-23	1,050	\$5,250	1,000	\$5,260	\$10	(\$114)	\$ 5.250	\$ 0.010	\$ 5.260	
Jun-23	1,100	\$5,500	1,000	\$5,260	(\$240)	(\$354)				
Jul-23	950	\$4,750	1,000	\$5,260	\$510	\$156				
Aug-23	950	\$4,750	1,000	\$5,237	\$487	\$643	\$ 5.250	\$ (0.013)	\$ 5.237	
Sep-23	1,100	\$5,500	1,000	\$5,237	(\$263)	\$380				
Oct-23	1,050	\$5,250	1,000	\$5,237	(\$13)	\$367				
Nov-23							\$ 5.250	\$ (0.031)	\$ 5.219	

SCHEDULE I
Kentucky Frontier Gas, LLC - unified utility
RATE DETERMINATION

for Feb23

theoretical simple example using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months 12,000 MCF *from Schedule III*

EXPECTED GAS COST *from Schedule II*

EXPECTED GAS COST of sales \$ 5.00 per MCF of sales, next period

BALANCING ADJUSTMENT *from Schedule III*

CUMULATIVE OVER/(UNDER) RECOVERY \$ (500) *Gas Bal Acct, at January 31, 2*

UNDER-Recovered Gas Cost to amortize \$ (500) *Balance to amortize over 12 r*

GAS COST RECOVERY RATES:

EXPECTED GAS COST per MCF of sales \$ 5.000 EGC
PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt \$ 0.042 Balance Adjustment

TOTAL Gas Cost Recovery RATE \$ 5.042 per MCF of sales, next period

for May23

SCHEDULE I
Kentucky Frontier Gas, LLC - unified utility
RATE DETERMINATION

theoretical simple example using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months	12,000 MCF	<i>from Schedule III</i>
<u>EXPECTED GAS COST</u>	<i>from Schedule II</i>	
EXPECTED GAS COST of sales	\$ 5.25	<i>per MCF of sales, next period</i>
<u>BALANCING ADJUSTMENT</u>	<i>from Schedule III</i>	
CUMULATIVE OVER/(UNDER) RECOVERY	\$ (124)	<i>Gas Bal Acct, at April 30, 2023</i>
UNDER-Recovered Gas Cost to amortize	\$ (124)	<i>Balance to amortize over 12 r</i>
<u>GAS COST RECOVERY RATES:</u>		
EXPECTED GAS COST per MCF of sales	\$ 5.250	<i>EGC</i>
PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt	\$ 0.010	<i>Balance Adjustment</i>
TOTAL Gas Cost Recovery RATE	\$ 5.260	<i>per MCF of sales, next period</i>

SCHEDULE I
Kentucky Frontier Gas, LLC - unified utility
RATE DETERMINATION

for Nov23

theoretical simple example using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months	12,000 MCF	<i>from Schedule III</i>
<u>EXPECTED GAS COST</u>		<i>from Schedule II</i>
EXPECTED GAS COST of sales	\$ 5.25	<i>per MCF of sales, next period</i>
<u>BALANCING ADJUSTMENT</u>		<i>from Schedule III</i>
CUMULATIVE OVER/(UNDER) RECOVERY	\$ 367	<i>Gas Bal Acct, at October 31, 2</i>
UNDER-Recovered Gas Cost to amortize	\$ 367	<i>Balance to amortize over 12 r</i>
<u>GAS COST RECOVERY RATES:</u>		
EXPECTED GAS COST per MCF of sales	\$ 5.250	<i>EGC</i>
PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt	\$ (0.031)	<i>Balance Adjustment</i>
TOTAL Gas Cost Recovery RATE	\$ 5.219	<i>per MCF of sales, next period</i>

EXHIBIT B

Kentucky Frontier Gas		SCHEDULE III			GAS BALANCING ACCOUNT					PSC DR-2 Exhibit B 2023-00067 1			
Month	System	Purch Mcf	Purch	Purch \$/Mcf	Sales Mcf	L&U	Gas Sales	O/U Recov Cost	Cum O/U Recov GBA Balance	Expected Gas Cost \$/MCF	AA + BA Adjst	Gas Cost Reconcil'n	GCA Rate \$/Mcf
Oct-22	KFG	19,438	\$123,468	\$ 6.352	16,518	15%	\$167,484	\$44,016					
	PGC	6,809	\$85,493	\$ 12.556	6,003	12%	\$60,867	(\$24,626)					
	Total	26,247	\$208,961	\$ 7.961	22,521	14%		\$19,391	(\$721,460)	Sales/limtr	Excess L&U		
L&U Limit calcs		301,817	\$ 2,045,009	\$ 6.78	264,444	12.4%	\$ 2,145,890	\$ 21,718	Excess L&U	285,885	15,932		
	PGC	105,880	\$ 1,391,070	\$ 13.14	109,711	-3.6%	\$ 882,184			118,606	(12,726)		
	Total	407,697	\$ 3,436,079	\$ 8.43	374,155	8.2%	\$ 3,028,074	\$ 21,718	(\$699,742)	404,492	3,205		
Nov-22	KFG	31,812	\$184,231	\$ 5.791	30,535	4%	\$404,887	\$220,657		\$ 11.290	\$ 1.970		\$ 13.260
	PGC	14,117	\$161,867	\$ 11.466	12,948	8%	\$171,696	\$9,829					
	Total	45,929	\$346,097	\$ 7.535	43,483	5%		\$230,486	(\$469,256)				
Dec-22	KFG	45,376	\$345,573	\$ 7.616	45,474	0%	\$602,988	\$257,415		\$ 11.290	\$ 1.970		\$ 13.260
	PGC	20,145	\$295,862	\$ 14.687	20,016	1%	\$265,406	(\$30,457)					
	Total	65,521	\$641,436	\$ 9.790	65,490	0%		\$226,958	(\$242,298)				
Jan-23	KFG	45,650	\$284,853	\$ 6.240	39,077	14%	\$518,161	\$233,308					
	PGC	16,655	\$189,292	\$ 11.365	16,495	1%	\$218,718	\$29,427					GCA Bal
	Total	62,305	\$474,145	\$ 7.610	55,572	11%		\$262,734	\$20,437				\$ (188,751)
Feb-23	KFG	36,722	\$174,631	\$ 4.755	36,301	1%	\$333,347	\$158,716		\$ 9.240	\$ (0.057)		\$ 9.183
	PGC	17,270	\$164,703	\$ 9.537	16,600	4%	\$152,439	(\$12,264)					
	Total	53,992	\$339,334	\$ 6.285	52,901	2%		\$146,452	\$166,889				
Mar-23	KFG	34,705	\$138,433	\$ 1.800	31,900	8%	\$292,934	\$154,501					
	PGC	13,312	\$120,290	\$ 9.036	12,851	3%	\$118,009	(\$2,281)					
	Total	48,017	\$258,723	\$ 5.388	44,750	7%		\$152,221	\$319,110				
Apr-23	KFG	18,452	\$66,181	\$ 1.800	17,396	6%	\$159,751	\$93,571					
	PGC	8,245	\$63,291	\$ 7.676	6,383	23%	\$58,619	(\$4,673)					GCA Bal
	Total	26,697	\$129,472	\$ 4.850	23,780	11%		\$88,898	\$408,008				\$ 561,267
May-23	KFG	15,677	\$48,977	\$ 3.570	11,913	24%	\$56,990	\$8,014		\$ 5.930	\$ (1.146)		\$ 4.784
	PGC	2,879	\$24,898	\$ 8.648	3,293	-14%	\$15,756	(\$9,142)					
	Total	18,556	\$73,874	\$ 3.981	15,206	18%		(\$1,128)	\$406,880				
Jun-23	KFG	8,800	\$29,304	\$ 3.330	7,948	10%	\$38,023	\$8,719					
	PGC	2,296	\$19,166	\$ 9.780	1,956	15%	\$9,357	(\$9,809)					
	Total	11,096	\$48,470	\$ 4.368	9,904	11%		(\$1,090)	\$405,790				
Jul-23	KFG	6,600	\$22,374	\$ 3.390	5,958	10%	\$28,503	\$6,129					
	PGC	1,838	\$15,484	\$ 9.840	1,459	21%	\$6,978	(\$8,505)					GCA Bal
	Total	8,438	\$37,858	\$ 4.487	7,417	12%		(\$2,377)	\$403,413				\$ 579,658
										\$ 6.530	\$ (1.133)		\$ 5.397

estimated projected
forecast Gas Balancing Acct to end of current rates

ending balance ^^ to Sched I

SCHEDULE I

Kentucky Frontier Gas, LLC - unified utility

for Nov22

RATE DETERMINATION

theoretical using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months	356,000 MCF	<i>from Schedule III</i>
<u>EXPECTED GAS COST</u>		<i>from Schedule II</i>
<u>GAS SALES VOLUMES, next period:</u>	170,000 MCF	<i>(calculated on pg. 2)</i>
<u>GAS PURCHASE COSTS, next period:</u>	\$ 1,919,300	<i>(calculated on pg. 2)</i>
EXPECTED GAS COST of sales	\$ 11.29 per MCF of sales, next period	
<u>BALANCING ADJUSTMENT</u>		<i>from Schedule III</i>
CUMULATIVE OVER/(UNDER) RECOVERY	\$ (699,742)	<i>Gas Bal Acct, at October 31, 2</i>
UNDER-Recovered Gas Cost to amortize	\$ (699,742)	<i>Balance to amortize over 12 r</i>
<u>GAS COST RECOVERY RATES:</u>		
EXPECTED GAS COST per MCF of sales	\$ 11.2900	<i>EGC</i>
PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt	\$ 1.9656	<i>Balance Adjustment</i>
TOTAL Gas Cost Recovery RATE	\$ 13.2556 per MCF of sales, next period	

SCHEDULE I

Kentucky Frontier Gas, LLC - unified utility

for Feb23

RATE DETERMINATION

theoretical using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months 356,000 MCF *from Schedule III*

EXPECTED GAS COST *from Schedule II*

GAS SALES VOLUMES, next period: 141,000 MCF *(calculated on pg. 2)*

GAS PURCHASE COSTS, next period: \$ 1,302,840 *(calculated on pg. 2)*

EXPECTED GAS COST of sales **\$ 9.24** *per MCF of sales, next period*

BALANCING ADJUSTMENT *from Schedule III*

CUMULATIVE OVER/(UNDER) RECOVERY **\$ 20,437** *Gas Bal Acct, at January 31, 2*

UNDER-Recovered Gas Cost to amortize **\$ 20,437** *Balance to amortize over 12 r*

GAS COST RECOVERY RATES:

EXPECTED GAS COST per MCF of sales **\$ 9.2400** *EGC*
 PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt **\$ (0.0574)** *Balance Adjustment*

TOTAL Gas Cost Recovery RATE **\$ 9.1826** *per MCF of sales, next period*

SCHEDULE I

Kentucky Frontier Gas, LLC - unified utility

for May23

RATE DETERMINATION

theoretical using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months	356,000 MCF	<i>from Schedule III</i>
<u>EXPECTED GAS COST</u>		<i>from Schedule II</i>
<u>GAS SALES VOLUMES, next period:</u>	32,000 MCF	<i>(calculated on pg. 2)</i>
<u>GAS PURCHASE COSTS, next period:</u>	\$ 189,760	<i>(calculated on pg. 2)</i>
EXPECTED GAS COST of sales	\$ 5.93	<i>per MCF of sales, next period</i>
<u>BALANCING ADJUSTMENT</u>		<i>from Schedule III</i>
CUMULATIVE OVER/(UNDER) RECOVERY	\$ 408,008	<i>Gas Bal Acct, at April 30, 2023</i>
UNDER-Recovered Gas Cost to amortize	\$ 408,008	<i>Balance to amortize over 12 r</i>
<u>GAS COST RECOVERY RATES:</u>		
EXPECTED GAS COST per MCF of sales	\$ 5.9300	<i>EGC</i>
PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt	\$ (1.1461)	<i>Balance Adjustment</i>
TOTAL Gas Cost Recovery RATE	\$ 4.7839	<i>per MCF of sales, next period</i>

SCHEDULE I

Kentucky Frontier Gas, LLC - unified utility

for Aug23

RATE DETERMINATION

theoretical using GBA method starting Nov22 rates

GAS SALES VOLUMES, last 12 months 356,000 MCF *from Schedule III*

EXPECTED GAS COST *from Schedule II*

GAS SALES VOLUMES, next period: 30,500 MCF *(calculated on pg. 2)*

GAS PURCHASE COSTS, next period: \$ 199,165 *(calculated on pg. 2)*

EXPECTED GAS COST of sales **\$ 6.53** *per MCF of sales, next period*

BALANCING ADJUSTMENT *from Schedule III*

CUMULATIVE OVER/(UNDER) RECOVERY **\$ 403,413** *Gas Bal Acct, at July 31, 2023*

UNDER-Recovered Gas Cost to amortize **\$ 403,413** *Balance to amortize over 12 r*

GAS COST RECOVERY RATES:

EXPECTED GAS COST per MCF of sales **\$ 6.5300** *EGC*
 PLUS (Under) / MINUS (Over) -Recovery Bal Adjustmt **\$ (1.1332)** *Balance Adjustment*

TOTAL Gas Cost Recovery RATE **\$ 5.3968** *per MCF of sales, next period*

EXHIBIT C

KFG UNIFIED GAS COST RECOVERY RATE
as filed June 30
 SCHEDULE I

GAS COST RECOVERY RATE SUMMARY

<u>Component</u>	<u>Unit</u>	<u>Amount</u>	
Expected Gas Cost (EGC)	\$/Mcf	\$ 6.5309	<i>EGC for 3Q23</i>
+ Refund Adjustment (RA)	\$/Mcf	\$ -	
+ Actual Adjustment (AA)	\$/Mcf	\$ (2.9276)	<i>huge \$2.92 Adjs ~ \$4.21 margin</i>
+ Balance Adjustment (BA)	\$/Mcf	\$ 0.0119	
= Gas Cost Recovery Rate (GCR)		\$ 3.6151	<i>Gas Cost in rates for 3Q23</i>

GCR to be effective for service rendered from: August 1, 2023

A	<u>EXPECTED GAS COST CALCULATION</u>	<u>Unit</u>	<u>Amount</u>
	Total Expected Gas Cost (Schedule II)	\$	\$ 2,273,147
/	Sales for the 12 months ended <u>April 30, 2023</u>	Mcf	348,061
=	Expected Gas Cost (EGC)	\$/Mcf	\$ 6.5309

B	<u>REFUND ADJUSTMENT CALCULATION</u>	<u>Unit</u>	<u>Amount</u>
	Supplier Refund Adjustment for Reporting Period (Sch. III)	\$	-
+	Previous Quarter Supplier Refund Adjustment	\$/Mcf	\$ -
+	Second Previous Quarter Supplier Refund Adjustment	\$/Mcf	\$ -
+	Third Previous Quarter Supplier Refund Adjustment	\$/Mcf	\$ -
=	Refund Adjustment (RA)	\$/Mcf	\$ -

C	<u>ACTUAL ADJUSTMENT CALCULATION</u>		<u>Amount</u>
	Actual Adjustment for the Current Reporting Period (Sch. IV)	\$/Mcf	\$ (1.9183) <i>from Feb23-Apr23</i>
+	Previous Quarter Reported Actual Adjustment	\$/Mcf	\$ (1.1671) <i>from Nov22-Jan23</i>
+	Second Previous Quarter Reported Actual Adjustment	\$/Mcf	\$ - <i>from Aug-Oct22</i>
+	Third Previous Quarter Reported Actual Adjustment	\$/Mcf	\$ 0.1578 <i>from May-Jul22</i>
=	Actual Adjustment (AA)	\$/Mcf	\$ (2.9276)

D	<u>BALANCE ADJUSTMENT CALCULATION</u>	<u>Unit</u>	<u>Amount</u>
	Balance Adjustment for the Reporting Period (Sch. V)	\$/Mcf	\$ (0.0090) <i>1Q23</i>
+	Previous Quarter Reported Balance Adjustment	\$/Mcf	\$ 0.0016 <i>4Q22</i>
+	Second Previous Quarter Reported Balance Adjustment	\$/Mcf	\$ - <i>3Q22</i>
+	Third Previous Quarter Reported Balance Adjustment	\$/Mcf	\$ 0.0193 <i>2Q22</i>
=	Balance Adjustment (BA)	\$/Mcf	\$ 0.0119

2023-00222

ATTACHMENTS
ARE EXCEL
SPREADSHEETS
AND UPLOADED
SEPARATELY

KENTUCKY FRONTIER GAS, LLC
PSC CASE NO. 2023-00067
RESPONSE TO REQUEST FOR INFORMATION

PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 7

RESPONSIBLE PARTY: Steve Shute

Request 7. Refer to Kentucky Frontier's Application, Exhibit C, Excel spreadsheet.

- a. State whether Kentucky Frontier proposes that the Cumulative Over/Under Recovery GBA Balance continue to include all over- and under-recoveries of gas cost from previous quarters as shown in Exhibit C, Excel spreadsheet.
- b. If so, explain why there is no adjustment for amounts recovered or returned in previous Balancing Adjustments.
- c. Also, if Kentucky Frontier's proposed method achieves the same kind of reconciliation for past under-/over-recoveries of gas cost as the current method, explain how.

Response 7a.

Yes. Like a bank account balance, the Gas Balancing Account is the cumulative balance of all gas costs and gas cost recoveries over time. Any month's Balance reflects all over- and under-recoveries of gas cost over each prior month-quarter-year.

Response 7b.

Same response. The Gas Balancing Account is the cumulative balance of all gas costs and gas cost recoveries over time, over all past quarters. The effects of all previous Balancing Adjustments are used to arrive at the current GBA balance.

Response 7c.

In theory, both methods should achieve the same goal of reconciling all past under-/over-recoveries of gas cost. In actuality, it is not clear the current method actually does that, ever; and in recent examples, it takes years to reconcile. Frontier proposes to continually keep and state the current balance of the Gas Balancing Account, and make quarterly adjustments based on the *present* balance, not 4-5 quarters of past activity.

KENTUCKY FRONTIER GAS, LLC
PSC CASE NO. 2023-00067
RESPONSE TO REQUEST FOR INFORMATION

PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 8

RESPONSIBLE PARTY: Mike Harris

Request 8. Provide the annual percentage of lost and unaccounted for gas for the years 2018–2022.

Response 8.

System losses for calendar year January to December:

2018 - 7%

2019 - 7%

2020 - 11%

2021 - 7%

2022 - 7%

KENTUCKY FRONTIER GAS, LLC
PSC CASE NO. 2023-00067
RESPONSE TO REQUEST FOR INFORMATION

PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 9

RESPONSIBLE PARTY: **Steven Shute**

Request 9. Provide a percentage breakdown of the type of gas loss and unaccounted for gas on the Kentucky Frontier gas system. The breakdown should differentiate between gas that is unaccounted for and gas that is lost due to line damage, theft, leaks, meters, etc.

Response 9.

This is very difficult to determine with accuracy in our rural system. Gas loss to meter error has been reduced in the AMR or Automated Meter Reading program that has run concurrent with the PRP since 2013. Frontier standardized on a few styles and sizes of meter (after inheriting about 20 flavors), and has replaced about 2000 outdated meters; has tested, refurbished and temperature-compensated over 3000 meters; and has implemented automated radio meter reading and a new billing system, to minimize losses from metering error and mistakes. We suspect that such losses are maybe 1% of volume.

Gas theft is a significant threat, but nearly impossible to detect. Most of the Frontier systems were built by producers as gathering lines, off which distribution customers were a minor cash stream (and often irritating necessity). Some landowners with wells were given free gas when it was cheap; some gas users helped themselves with a clandestine gas tap, using garden hoses and

fittings from the hardware store (and not DOT-approved); and some gas users were just lost to time in the poor records of these tiny entities. Some old maps have hundreds of service lines that aren't in current use; we retire and remove these as able, but doubtless there are many old gas services that have been put back into clandestine service, above- and below-ground that we can only stumble across. The volume of lost gas is somewhat cyclical by season, like gas usage by all customers. To date, no county sheriff or DA has been willing to prosecute the felony theft of gas when discovered, so there is no downside for bad actors. The overall impact could be felt, if Frontier had 250 parasites (5% of current customers) stealing the typical 60 mcf per year used by an average small customer, the resulting 15,000 mcf loss is about 4% of sales. This seems higher than our actual theft rate.

Frontier has several systems with known defective PE pipe or butt fusion practices that have failed in the past and will fail in the future, causing large line losses. Line hits like the splashy one in Response 2 are infrequent, and rarely as quantifiable. These are impossible to predict and infeasible to replace, so we have to monitor daily line volumes to watch for the big ones. This daily vigilance did not detect the Sigma line break, when the excavator didn't report the very energetic gas leak and just covered it up; that took a month of bills to figure out.

The majority of system loss is likely from corrosion on the original steel pipe systems in Belfry and others. These systems have been the focus of most PRP work and more-than-required leak surveys, and Frontier has made significant progress in reducing line losses on the worst systems. Frontier's biggest handicap on achieving 5% line loss is simply size:

- If a gas leak were like a small drip-drip-drip from a water container,
- Urban utilities are like a 1-gallon jug (in terms of gas sales per length of pipe),
- Frontier has an 8-ounce juice cup (1:17 in first DR, Resp #3), so
- The exact same drip-drip leak is far more consequential in percentage to Frontier.

And, with 60 customers per mile, leaks on Urban systems are reported at far higher rates and lesser delay than for Frontier's very rural pipelines, that can go miles between humans.

KENTUCKY FRONTIER GAS, LLC
PSC CASE NO. 2023-00067
RESPONSE TO REQUEST FOR INFORMATION

PSC'S SECOND REQUEST FOR INFORMATION – 08/15/23
REQUEST 10

RESPONSIBLE PARTY: Mike Harris

Request 10. Provide the annual amount of investment Kentucky Frontier allocated to its PRP program for the years 2018–2022.

Response 10.

As reported to the Commission, Frontier has allocated the following expenditures in its PRP:

2018 – \$373k

2019 – \$231k

2020 – \$232k

2021 – \$306k

2022 – \$264k final figures not yet submitted

2023 - is expected to be the same as 2021-22