

May 31, 2023

Ms. Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120-0093

Re: Annual Resource Planning Report (ARPR)  
Docket: M-2023-3037450

Dear Secretary:

Enclosed is a copy of the National Fuel Gas Distribution Corporation (NFGDC) submittal of the Annual Resource Planning Report (ARPR) pursuant to Title 52, Pennsylvania Code § 59.81 through § 59.84.

In accordance with the Emergency Order at Docket #M-2020-3019262 issued on March 20, 2020, this Report is being filed electronically. No additional paper copies will be sent.

General inquires concerning this submission and specific questions regarding FORMs-IRP-GAS-1A,1B, 3, 4A and 4B should be made to Cathy Cherven-Oczytko at (716) 857-7691.

Specific questions concerning FORMs-IRP-GAS-2A-Table 1, 2A-Table 2, 2B and 2C should be made to Nick Pasquarella at (716) 857-7010.

Definitive inquiries pertaining to FORMs-IRP-GAS-5, 6, 7, 8 or 9 should be directed to Michelle Kosko at (814) 871-8140.

Sincerely,



Cathleen Cherven-Oczytko  
Assistant Manager-Market Planning  
Rates & Regulatory Affairs

Enclosures

cc: Office of Consumer Advocate  
Office of Small Business Advocate  
Bureau of Investigation and Enforcement

Form-IRP-GAS-1A: Annual Gas Demand Requirements  
Reporting Utility: National Fuel Gas Distribution Corporation - Pennsylvania Division  
(Volumes in MMcf)

Index Year: Actual Year:	Historical Data		Current Year	Three Year Forecast		
	-2 2021	-1 2022	0 2023	1 2024	2 2025	3 2026
Firm Sales:						
Retail Residential	16,297	18,089	18,035	18,279	18,398	18,596
Retail Commercial	2,952	3,370	2,964	2,987	2,990	3,005
Retail Industrial	252	347	238	240	239	240
Electric power generation	0	0	0	0	0	0
Exchange with other utilities	0	0	0	0	0	0
Unaccounted for Gas	(67)	(209)	32	33	33	33
Company Use	7	8	15	15	15	15
Other (Off-system)	0	0				
Subtotal Firm Sales	19,441	21,605	21,285	21,553	21,674	21,889
Interruptible Sales:						
Retail	0	0	0	0	0	0
Electric power generation	0	0	0	0	0	0
Company's Own Plant	0	0	0	0	0	0
Subtotal Interruptible	0	0	0	0	0	0
Subtotal Firm and Interruptible Sales:	19,441	21,605	21,285	21,553	21,674	21,889
Transportation:						
Firm Residential	1,956	2,004	1,935	1,881	1,813	1,751
Firm Commercial	6,342	6,596	6,932	7,010	7,061	7,149
Firm Industrial	17,812	16,903	18,728	19,699	20,116	20,291
Interruptible Residential	0	0	0	0	0	0
Interruptible Commercial	0	0	0	0	0	0
Interruptible Industrial	0	0	0	0	0	0
Electric power generation	0	0	0	0	0	0
Subtotal Transportation	26,110	25,502	27,594	28,590	28,990	29,191
Total Gas Requirements	45,551	47,107	48,878	50,143	50,664	51,080
Increase (Decrease)		1,556	1,771	1,265	521	415
Percent Change (%)		3.4%	3.8%	2.6%	1.0%	0.8%

FORM-IRP-GAS-1B: PEAK DAY REQUIREMENTS  
 REPORTING UTILITY: National Fuel Gas Distribution Corporation - Pennsylvania Division  
 (volumes in Mmcf)

Index Year: Actual Year:	Historical Data		Current Year	Three Year Forecast		
	-2 2021	-1 2022	0 2023	1 2024	2 2025	3 2026
<b>Firm Sales</b>						
Retail Residential	137.100	139.700	219.435	223.181	224.255	226.653
Retail Commercial	24.800	27.900	39.039	39.399	39.283	39.396
Retail Industrial	2.000	2.500	2.189	2.211	2.202	2.211
Electric Power Generation Exchanges with Other Utilities						
Unaccounted for Gas			0.392	0.398	0.399	0.403
Company Use			0.055	0.055	0.055	0.055
Other						
Subtotal Firm Sales	163.900	170.100	261.110	265.244	266.194	268.718
<b>Interruptible Sales</b>						
Retail						
Electric Power Generation						
Company's Own Plant						
Subtotal Interruptible Sales	0.000	0.000	0.000	0.000	0.000	0.000
<b>SUBTOTAL FIRM AND INTERRUPTIBLE SALES:</b>	163.900	170.100	261.110	265.244	266.194	268.718
<b>Transportation</b>						
Firm Residential	14.500	16.700	23.815	23.243	22.378	21.615
Firm Commercial	40.300	53.000	84.415	85.587	85.991	87.199
Firm Industrial	63.100	80.500	79.901	80.499	80.862	81.374
Interruptible Residential						
Interruptible Commercial						
Interruptible Industrial						
Electric Power Generation						
Subtotal Transportation	117.900	150.200	188.131	189.329	189.231	190.188
<b>TOTAL GAS REQUIREMENTS</b>	281.800	320.300	449.241	454.573	455.425	458.906
Increase (Decrease)		38.500	128.941	5.332	0.852	3.481
Percent Change (%)		13.66%	40.26%	1.19%	0.19%	0.76%





Form-IRP-GAS-2B: Natural Gas Transportation  
 Reporting Utility: National Fuel Gas Distribution Corporation - Pennsylvania Division  
 (Volumes in MMcf)

Index Year Actual Year	Historical Data				Current Year		Three Year Forecast					
	-2 2021		-1 2022		0 2023		1 2024		2 2025		3 2026	
	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak
City Gate Transportation Contracts (List); <sup>1</sup>												
1. N.F.G.S.C. - EFT	19,823.3	163.9	21,133.8	170.1	21,521.5	261.1	21,785.9	265.2	21,900.2	266.2	22,108.8	268.7
Other - Transportation to end users	26,110.0	117.9	25,502.0	150.2	27,594.0	188.1	28,590.0	189.3	28,990.0	189.2	29,191.0	190.2
<b>Total</b>	<b>45,933.3</b>	<b>281.8</b>	<b>46,635.8</b>	<b>320.3</b>	<b>49,115.5</b>	<b>449.2</b>	<b>50,375.9</b>	<b>454.6</b>	<b>50,890.2</b>	<b>455.4</b>	<b>51,299.8</b>	<b>458.9</b>
Upstream Transportation Contracts:	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak
1. TGP Zone 4	4,738.9	17.4	7,330.5	58.9	14,327.7	60.7	15,037.5	61.1	14,937.5	61.6	15,564.1	62.1
2. Columbia G. T.	1,328.8	12.7	2,031.7	1.7	334.8	1.7	332.9	1.7	333.5	1.7	330.5	1.7
3. Texas Eastern	3,444.1	9.5	3,012.8	9.5	3,813.9	9.5	3,823.5	9.5	3,813.9	9.5	3,813.9	9.5
Other (NFGSC & NFGDC)	-	44.8	-	36.8		34.3		34.3		34.3		34.3
<b>Total</b>	<b>9,511.7</b>	<b>84.4</b>	<b>12,375.0</b>	<b>106.9</b>	<b>18,476.4</b>	<b>106.2</b>	<b>19,193.9</b>	<b>106.6</b>	<b>19,084.9</b>	<b>107.1</b>	<b>19,708.5</b>	<b>107.6</b>
Storage Related Transportation Contracts <sup>2</sup> :	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak
1. ESS - NFGSC	5,973.8	54.0	6,063.0	21.1	5,734.4	113.2	5,612.9	117.0	5,859.9	117.4	5,561.2	119.5
2. FSS - NFGSC	153.9	9.5	212.3	9.5	187.4	10.2	152.7	10.2	148.9	10.2	148.9	10.2
3. FSS 2 - NFGSC	292.4	12.4	200.2	13.4	530.9	13.4	460.4	13.4	466.1	13.4	466.1	13.4
4. FSS-SST Col.	405.1	4.7	478.9	16.9	647.3	17.6	484.4	17.6	484.4	17.6	484.4	17.6
Other	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>6,825.2</b>	<b>80.6</b>	<b>6,954.5</b>	<b>60.9</b>	<b>7,100.0</b>	<b>154.4</b>	<b>6,710.4</b>	<b>158.2</b>	<b>6,959.3</b>	<b>158.6</b>	<b>6,660.6</b>	<b>160.7</b>

<sup>1</sup> Rank contracts in order of magnitude for the current year. Reporting should proceed along rank ordering until 75% of total contract supplies is accounted for, or until ten contracts have been listed, whichever occurs first. Provide a separate sheet identifying the supplier for each contract listed. (Note: rank ordered based on annual).

<sup>2</sup> Storage should net to zero (Net withdrawal activity on Sheet 2-C)

Form-IRP-GAS-2C: Natural Gas Storage  
 Reporting Utility: National Fuel Gas Distribution Corporation - Pennsylvania Division  
 (Volumes in MMcf)

Index Year Actual Year	Historical Data				Current Year		Three Year Forecast					
	-2 2021		-1 2022		0 2023		1 2024		2 2025		3 2026	
	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak
Storage Contracts (List); <sup>1</sup>												
1. NFGSC (ESS 1)	5,973.8	54.0	6,063.0	21.1	5,734.4	113.2	5,612.9	117.0	5,859.9	117.4	5,561.2	119.5
2. NFGSC (FSS)	153.9	9.5	212.3	9.5	187.4	10.2	152.7	10.2	148.9	10.2	148.9	10.2
3. NFGSC (FSS 2)	292.4	12.4	200.2	13.4	530.9	13.4	460.4	13.4	466.1	13.4	466.1	13.4
4. Columbia (FSS)	405.1	4.7	478.9	16.9	647.3	17.6	484.4	17.6	484.4	17.6	484.4	17.6
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total	6,825.2	80.6	6,954.5	60.9	7,100.0	154.4	6,710.4	158.2	6,959.3	158.6	6,660.6	160.7

<sup>1</sup> Rank contracts in order of magnitude for the current year. Reporting should proceed along rank ordering until 75% of total contract supplies is accounted for, or until ten contracts have been listed, whichever occurs first. Provide a separate sheet identifying the supplier for each contract listed. (Note: rank ordered based on MDQ).

FORM-IRP-GAS-3: NUMBER OF CUSTOMERS (YEAR END)  
 REPORTING UTILITY: National Fuel Gas Distribution Corporation - Pennsylvania Division

	Historical Data		Current Year	Three Year Forecast			
	Index Year: Actual Year:	-2 2021	-1 2022	0 2023	1 2024	2 2025	3 2026
Sales Service:							
Retail Residential		178,806	179,151	181,032	182,095	183,158	184,221
Retail Commercial		11,455	11,655	11,527	11,566	11,606	11,645
Retail Industrial		172	178	169	167	165	163
Other							
Subtotal Sales Service		190,433	190,984	192,728	193,828	194,928	196,029
Electric Power Generation							
Transportation Service		23,350	22,551	21,598	20,948	20,298	19,646
<b>CUSTOMER TOTAL</b>		<b>213,783</b>	<b>213,535</b>	<b>214,326</b>	<b>214,776</b>	<b>215,226</b>	<b>215,675</b>
Increase (Decrease)			(247)	791	450	450	449
Percent Change (%)			-0.1%	0.4%	0.2%	0.2%	0.2%

FORM-IRP-GAS-4A: ANNUAL SUPPLY AND REQUIREMENTS SUMMARY  
 REPORTING UTILITY: National Fuel Gas Distribution Corporation - Pennsylvania Division  
 (volumes in MMcf)

	Index Year: Actual Year:	Historical Data		Current Year	Three Year Forecast		
		-2 2021	-1 2022	0 2023	1 2024	2 2025	3 2026
Gas Supply:							
Supply Contracts		15,702	13,290	21,284	21,553	21,674	21,889
Spot Purchases		3,739	8,315				
Subtotal Gas Supply		19,441	21,605	21,284	21,553	21,674	21,889
Transportation		26,110	25,502	27,594	28,590	28,990	29,191
<b>TOTAL GAS SUPPLY</b>		<b>45,551</b>	<b>47,107</b>	<b>48,878</b>	<b>50,143</b>	<b>50,664</b>	<b>51,080</b>
Requirements:							
Firm Requirements		19,441	21,605	21,285	21,553	21,674	21,889
Interruptible Requirements							
Subtotal Firm & Interruptible		19,441	21,605	21,285	21,553	21,674	21,889
Transportation		26,110	25,502	27,594	28,590	28,990	29,191
Load Reductions		-	-	-	-	-	-
<b>TOTAL GAS REQUIREMENTS</b>		<b>45,551</b>	<b>47,107</b>	<b>48,878</b>	<b>50,143</b>	<b>50,664</b>	<b>51,080</b>
Surplus (Deficiency)		-	-	-	-	-	-

FORM-IRP-GAS-4B: PEAK DAY SUPPLY AND REQUIREMENTS SUMMARY  
 REPORTING UTILITY: National Fuel Gas Distribution Corporation - Pennsylvania Division  
 (volumes in MMcf)

	Historical Data		Current Year	Three Year Forecast			
	Index Year: Actual Year:	-2 2021	-1 2022	0 2023	1 2024	2 2025	3 2026
Gas Supply:							
Supply Contracts		163.900	170.100	261.100	265.200	266.200	268.700
Spot Purchases		0.000	0.000	0.000	0.000	0.000	0.000
Subtotal Gas Supply		163.900	170.100	261.100	265.200	266.200	268.700
Transportation		117.900	150.200	188.100	189.300	189.200	190.200
TOTAL GAS SUPPLY		281.800	320.300	449.200	454.500	455.400	458.900
Requirements:							
Firm Requirements		163.900	170.100	261.110	265.244	266.194	268.718
Interruptible Requirements		0.000	0.000	0.000	0.000	0.000	0.000
Subtotal Firm & Interruptible		163.900	170.100	261.110	265.244	266.194	268.718
Transportation		117.900	150.200	187.785	189.710	189.999	190.871
Load Reductions		0.000	0.000	0.000	0.000	0.000	0.000
TOTAL GAS REQUIREMENTS		281.800	320.300	448.895	454.954	456.193	459.589
Surplus (Deficiency)		0.000	0.000	0.305	(0.454)	(0.793)	(0.689)

**FORM IRP - GAS - 5 - PROGRAM DESCRIPTION**

**COMPANY:** NATIONAL FUEL GAS DISTRIBUTION CORPORATION 2022

**CONTACT:** MICHELLE KOSKO (814) 871-8140

**PROGRAM:** RESIDENTIAL HEAT SURVEYS

EXISTING

PROPOSED

**OBJECTIVE:**

To promote conservation measures and practices for residences containing four units or less and to respond to inquiries concerning heating systems, to assist in resolving high bill inquiries and to provide appropriate information for customers to evaluate conversion to natural gas from an alternate fuel.

**2022 Goals - 9** Residential Heat Surveys, Air Conditioning Surveys, High Bill Inquiries and Conversions (all at customer request)

**2023 Goals – 9** Residential Heat Surveys, Air Conditioning Surveys, High Bill Inquiries and Conversions (all at customer request)

**DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Provided 3 Residential Heat Surveys in 2022. Customer requirements determined the course of action which could include: an evaluation of the heating/cooling equipment and distribution system; insulation and ventilation; water heating; storm windows and doors; and calibrating some equipment. Customers are notified verbally and in writing of the findings and recommendations. Similar action is taken on high bill inquiries (2 in 2022) after obtaining a two-year history printout. An education session highlighting actions, which impact on energy reduction, is provided to each customer. All activities are performed free of charge to the requesting customer.

**ACTUAL AND/OR ANTICIPATED RESULTS:**

YEAR	<u>PEAK LOAD</u>		<u>ENERGY SAVINGS</u>		
	REDUCTION KW	ELECTRIC MWH	GAS MCF	OIL GALLONS	OTHER RESULTS
2022		N/A	N/A	N/A	
2023		N/A	N/A	N/A	

(Activity and savings are dependent on action taken by program recipient.)

**MONETARY AND PERSONNEL RESOURCES:**

YEAR	<u>PERSONNEL</u>		<u>CATEGORIZED PROGRAM EXPENSES</u>			
	ESTIMATED MANHOURS	LABOR	TRANSP	SERVICES	OTHER	TOTAL
2022	15	\$ 405	\$ 176	\$ 0	\$ 49	\$ 630
2023	45	\$ 1,224	\$ 180	\$ 0	\$ 50	\$ 1,454

**FORM IRP - GAS - 5 - PROGRAM DESCRIPTION**

**COMPANY:** NATIONAL FUEL GAS DISTRIBUTION CORPORATION - 2022

**CONTACT:** MICHELLE KOSKO (814) 871-8140

**PROGRAM:** COMMERCIAL HEAT SURVEYS

EXISTING

PROPOSED

**OBJECTIVE:**

To evaluate the heating system at a commercial establishment and to advise and educate the customer concerning conservation measures and practices for energy savings.

**2022 Goal - 4**

**2023 Goal - 5**

**DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Provided 4 Commercial Heat Surveys in 2022. A written report containing the results of an evaluation of the establishment is presented to the customer. This may include insulation, boiler or furnace performance, heat and cooling distribution systems, a fuel analysis for conversion from alternate fuels, modifications to correct comfort problems and energy savings recommendations. Work patterns and schedules are discussed to determine if changes here will have an impact on energy usage. There is no charge for the service, which is based on customer request.

**ACTUAL AND/OR ANTICIPATED RESULTS:**

<u>YEAR</u>	<u>PEAK LOAD</u>	<u>ELECTRIC</u>	<u>GAS</u>	<u>ENERGY SAVINGS</u>		<u>OTHER</u>
	<u>REDUCTION</u>			<u>OIL</u>	<u>RESULTS</u>	
	<u>KW</u>	<u>MWH</u>	<u>MCF</u>	<u>GALLONS</u>		
2022			N/A			
2023			N/A			

(Activity and savings are dependent on actions taken by program recipient.)

**MONETARY AND PERSONNEL RESOURCES:**

<u>YEAR</u>	<u>PERSONNEL</u>		<u>CATEGORIZED PROGRAM EXPENSES</u>			
	<u>ESTIMATED</u>	<u>LABOR</u>	<u>TRANSP</u>	<u>SERVICES</u>	<u>OTHER</u>	<u>TOTAL</u>
	<u>MANHOURS</u>					
2022	18	\$ 540	\$ 176	\$0	\$49	\$ 765
2023	22.5	\$ 680	\$ 180	\$0	\$50	\$ 910

**FORM IRP - GAS - 5 - PROGRAM DESCRIPTION**

**COMPANY:** NATIONAL FUEL GAS DISTRIBUTION CORPORATION 2022

**CONTACT:** MICHELLE KOSKO (814) 871-8140

**PROGRAM:** ENERGY CONSERVATION SURVEYS (ECS)

EXISTING

PROPOSED

**OBJECTIVE:**

To perform free Energy Surveys for customers who demonstrate ability - to - pay problems and determine if the customers are eligible for LIURP.

**2022 Goal - 225**  
**2023 Goal - 208**

(Per customer request when payment arrangements are made.)

**DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

A National Fuel conservation representative will identify procedures and measures, which will impact energy savings and comfort. Items discussed could include attic, wall and basement insulation, caulking and weather-stripping, heating and ventilation, comfort zone and behavior changes in lifestyle, which may significantly impact energy usage. A site specific report identifying deficiencies or actions to be taken is provided at each surveyed residence. Recipients of ECS, are often customers who have ability-to-pay problems. Many of these customers are also referred to the Low Income Usage Reduction Program for further services. There were 28 surveys completed in 2022. There were also 251 customers that were sent a Low-Cost, No-Cost Energy Saving Tips flier.

**ACTUAL AND/OR ANTICIPATED RESULTS:**

<u>YEAR</u>	<u>PEAK LOAD</u>	<u>ENERGY SAVINGS</u>			
	<u>REDUCTION</u> <u>KW</u>	<u>ELECTRIC</u> <u>MWH</u>	<u>GAS</u> <u>MCF</u>	<u>OIL</u> <u>GALLONS</u>	<u>OTHER</u> <u>RESULTS</u>
2022			N/A		
2023			N/A		

(Savings are dependent upon actions taken by a survey recipient.)

**MONETARY AND PERSONNEL RESOURCES:**

<u>YEAR</u>	<u>PERSONNEL</u>		<u>CATEGORIZED PROGRAM EXPENSES</u>			
	<u>ESTIMATED</u> <u>MANHOURS</u>	<u>LABOR</u>	<u>TRANS</u>	<u>SERVICES</u>	<u>OTHER</u>	<u>TOTAL</u>
2022	126	\$ 3,780	\$ 176	\$ 0	\$ 49	\$ 4,005
2023	936	\$ 28,288	\$ 180	\$ 0	\$ 50	\$ 28,518

**FORM IRP - GAS - 5 - PROGRAM DESCRIPTION**

**COMPANY:** NATIONAL FUEL GAS DISTRIBUTION CORPORATION - 2022

**CONTACT:** MICHELLE KOSKO (814) 871-8140

**PROGRAM:** LOW INCOME USAGE REDUCTION PROGRAM (LIURP)

**EXISTING**

**PROPOSED**

**OBJECTIVE:**

To reduce the energy usage of qualifying low-income customers through weatherization and education, reduction of uncollectible accounts, collection and termination expenses of National Fuel as mandated by the PUC.

**2022 Goal - 344 Homes**

**2023 Goal - 486 Homes**

**DETAILS OF ACTIVITY AND IMPLEMENTATION SCHEDULE:**

Households, which qualify by having high consumption, high arrearage and income at or below the 200%, Federal Poverty Guidelines will be considered for LIURP. There were 76 households that received full services, which include a furnace safety check, a clean and tune, an energy audit, education sessions, weatherization measures, infiltration measures and in approximately 25% of the jobs, a post inspection by a National Fuel Representative. Major measures installed allow for a targeted goal of a twelve-year payback that may include attic insulation, wall insulation and furnace and/or water heater replacement. The average expenditure per household was \$5409.39 for the 76 houses that received full services in 2022. There were 5 furnaces/boilers and 10 water heaters replaced for those who received weatherization measures. An additional 2 customers received partial services. National Fuel's Emergency Repair/Replacement Program provides repair or replacement of defective heating systems or water heaters for customers at or below the 200% of poverty guidelines and who are not eligible for weatherization under LIURP. In 2022, National Fuel repaired 13 furnaces/boilers, 2 water heaters, 1 houseline, replaced 49 furnaces/boilers, and replaced 59 water heaters.

**ACTUAL AND/OR ANTICIPATED RESULTS:**

<u>YEAR</u>	<u>PEAK LOAD</u>	<u>ENERGY SAVINGS</u>			
	<u>REDUCTION</u> <u>KW</u>	<u>ELECTRIC</u> <u>MWH</u>	<u>GAS</u> <u>MCF</u>	<u>OIL</u> <u>GALLONS</u>	<u>OTHER</u> <u>RESULTS</u>
2022			2,774		
2023			12,344 (EST)		

**MONETARY AND PERSONNEL RESOURCES:**

<u>YEAR</u>	<u>PERSONNEL</u>		<u>CATEGORIZED PROGRAM EXPENSES</u>			
	<u>ESTIMATED</u> <u>MANHOURS</u>	<u>LABOR COST</u>	<u>TRANSP</u>	<u>SERVICES</u>	<u>OTHER</u>	<u>TOTAL</u>
2022	3,328	\$23,960	\$ 773	\$ 820,633	\$ 2,134	\$ 847,500
2023	3,328	\$20,223	\$ 773	\$3,365,440	\$ 2,160	\$3,388,596

**FORM IRP - GAS - 6 - ENERGY USERS**

**COMPANY: NATIONAL FUEL GAS DISTRIBUTION CORPORATION – 2022**

<b><u>ENERGY USERS</u></b>	<b><u>NUMBER OF CUSTOMERS</u></b> <b><u>(YEAR-END)</u></b>	<b><u>ANNUAL ENERGY CONSUMPTION*</u></b> <b><u>MCF</u></b>	<b>CONSERVATION IMPACT (MW REDUCTION OF MCF SAVINGS)</b>	
			<b><u>TARGET</u></b>	<b><u>ACTUAL</u></b>
RESIDENTIAL HEAT & NON HEATING	196,870	19,737,172.2		
COMMERCIAL	14,964	7,478,869.6		
INDUSTRIAL	595	17,178,704.6		
PUBLIC AUTHORITY	1,203	2,389,258.9		
RAILROADS				
RESALE INTERRUPTIBLE				
INTERDEPARTMENTAL				
TRANSPORTATION	22,637*			
<b>TOTALS</b>	<b>213,632</b>	<b>46,784,005.3</b>		

\* These accounts are already included in the numbers above and the totals.

## **OTHER CONSERVATION ACTIVITIES**

### **OUTREACH AND EDUCATION**

*Program expenses: None*

Presentations are offered yearly to diverse agencies throughout the National Fuel 14 county territory. This presentation details the National Fuel Gas Universal Service programs offered, which includes weatherization and conservation measures. Our Universal Services Advisory Committee meets twice a year obtaining feedback from various agencies and community partner to improve our current Programs. Our goal is to outreach to various agency staff, increasing their awareness of NFG's Universal Service programs which will increase referrals and assistance to our customers.

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**FORM IRP - GAS - 7 - PROGRAM SUMMARY**  
**2022 EXISTING**

**COMPANY: NATIONAL FUEL GAS DISTRIBUTION**  
**CONTACT: Michelle Kosko (814) 871-8140**

**CATERGORIZED PROGRAM EXPENSES**

<u><b>PROGRAM NAME</b></u>	<u><b>PEAK LOAD REDUCTION</b></u>	<u><b>ENERGY USE CHANGE MCF</b></u>	<u><b>ALLOCATED MANHOURS</b></u>	<u><b>LABOR</b></u>	<u><b>TRANS/TOOLS</b></u>	<u><b>SERVICES</b></u>	<u><b>OTHER</b></u>	<u><b>TOTAL</b></u>
ECS	N/A	N/A	126	\$3,780	\$176	\$0	\$49	\$4,005
RESIDENTIAL HEAT SURVEY	N/A	N/A	15	\$405	\$176	\$0	\$49	\$630
COMMERCIAL HEAT SURVEY	N/A	N/A	18	\$540	\$176	\$0	\$49	\$765
LIURP	N/A	2,774	3,328	\$23,960	\$773	\$820,633	\$2,134	\$847,500
<b>TOTALS</b>	<b>N/A</b>	<b>2,774</b>	<b>3,487</b>	<b>\$28,685</b>	<b>\$1,301</b>	<b>\$820,633</b>	<b>\$2,281</b>	<b>\$852,900</b>

**FORM IRP - GAS - 7 - PROGRAM SUMMARY**  
**2023 EXISTING AND PROPOSED**

**COMPANY: NATIONAL FUEL GAS DISTRIBUTION**  
**CONTACT: Michelle Kosko (814) 871-8140**

<u>PROGRAM NAME</u>	<u>PEAK LOAD REDUCTION</u>	<u>ENERGY USE CHANGE MCF</u>	<u>ALLOCATED MANHOURS</u>	<u>CATERGORIZED PROGRAM EXPENSES</u>				
				<u>LABOR</u>	<u>TRANS/TOOLS</u>	<u>SERVICES</u>	<u>OTHER</u>	<u>TOTAL</u>
ECS	N/A	N/A	936	\$28,288	\$180	\$0	\$50	\$28,518
RESIDENTIAL HEAT SURVEY	N/A	N/A	45	\$1,224	\$180	\$0	\$50	\$1,454
COMMERCIAL HEAT SURVEY	N/A	N/A	22.5	\$680	\$180	\$0	\$50	\$910
LIURP	N/A	12,344 (Est)	3,328	\$20,223	\$773	\$3,365,440	\$2,160	\$3,388,596
<b>TOTALS</b>	<b>N/A</b>	<b>12,344 (Est)</b>	<b>4,332</b>	<b>\$50,415</b>	<b>\$1,313</b>	<b>\$3,365,440</b>	<b>\$2,310</b>	<b>\$3,419,478</b>

**FORM IRP - GAS - 8 - BENEFIT ANALYSIS INPUTS 2022**

**COMPANY: NATIONAL FUEL GAS DISTRIBUTION CORPORATION**

**PROGRAM: LIURP**

<b>YEAR</b>	<b>Energy Savings (E) MCF</b>	<b>Average Energy Costs (ACE) \$ PER/MCF</b>	<b>Avoided Energy Costs (MCE) \$PER/MCF</b>	<b>Participant Demand Savings (D) KW</b>	<b>Utility Capacity Savings (G) \$/KW</b>	<b>Average Demand Costs (ACD) \$/KW</b>	<b>Avoided Demand Costs (MCD) \$/KW</b>	<b>Participant Costs (PC) \$</b>	<b>Tax Credits (TC) \$</b>
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2022	2,774	10.70	7.00	N/A	N/A	N/A	N/A	0	0
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<b>Incentive Cost (1) \$</b>	<b>Utility Costs (UC) \$</b>	<b>Participants (D) %</b>	<b>Non-Participant (D) %</b>	<b>Utility (D) %</b>	<b>Escalation Rate _____ %</b>	<b>System Sales or Demand (S) MCF</b>	<b>Sales or Demand Ratio (F) %</b>	<b>Uncollectible Accounts Reduction (UA) \$</b>
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0	847,500	*	*	*	4	19,735,172	0	0
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**FORM IRP - GAS - 9 - COST BENEFIT ANALYSIS RESULTS 2022**

**COMPANY: NATIONAL FUEL GAS DISTRIBUTION CORPORATION**

**PROGRAM: LIURP**

Period of Analysis		Total Utility Benefits	Total Utility Costs	Revenue Reduction Cost	Participant Revenue Requirement	Total Participant Benefits	Total Participant Costs	Total All Ratepayers Benefits	Total All Ratepayers Costs
Beginning Year	Ending Year	(Bu)	(Cu)	(Cr)	(Rp)	(Bp)	(Cp)	(Ba)	(Ca)
		\$	\$	\$	\$	\$	\$	\$	\$
1/1/2022	12/31/2022	19,418	847,500	29,682	0	29,682	19,418	19,418	847,500

Discounted Payback Period	Net Present Value				Benefit-Cost Ratio				Rate Impact
	Participant (NPVp)	Non-Participant (NPVnp)	Utility (NPVu)	Ratepayers (NPVa)	Participant (BCR_p)	Non-Participant (BCRnp)	Utility (BCR_u)	Ratepayer (BCR_a)	Non-Participant (RIMnp)
	\$	\$	\$	\$		\$			\$Per MCF
	29,682	857,764	828,082	828,082	N/A	0.022	0.023	0.023	0.043