

NATIONAL FUEL GAS DISTRIBUTION CORPORATION
NEW YORK DIVISION
RESPONSE TO FORMAL ADMINISTRATIVE LAW JUDGE STEIN'S REQUEST
FOR INFORMATION
CASE 07-M-0548

- Q. Please provide actual annual sales data for 2006 and an annual sales forecast (electric in MWhs, gas in Decatherms) for your service territory for each year 2007 through 2015. The data should be broken down by and include every service class (even the ones you might deem irrelevant) and transportation/sales. Please identify the source of the forecasts.
- A. Please refer to the attached spreadsheet. 2006 actual values are based on the Calendar Year. All forecasted values are based on the twelve months ended September Fiscal Year. NFGDC does not have a forecast beyond Fiscal Year 2011. The source of the forecasts is the NFGDC Long-Range Master Estimate.

National Fuel Gas Distribution Corporation
 New York Division
 Volumes in Dth

	Actual 2006	Forecast				
		2007	2008	2009	2010	2011
Retail Sales						
Residential						
Residential less LIRA and EBD	38,959,705	43,226,830	42,792,402	41,745,625	40,828,115	39,768,458
Low Income Residential Assistance (LIRA)	2,129,423	2,745,038	2,759,893	2,745,038	2,745,038	2,745,038
Elderly, Blind or Disabled (EBD)	66,119	93,846	94,353	93,846	93,846	93,846
Residential Retail Sales	41,155,247	46,065,715	45,646,649	44,584,510	43,666,999	42,607,342
Commercial						
Commercial	5,687,657	7,230,107	7,354,747	7,344,610	7,299,391	7,198,038
Commercial Retail Sales	5,687,657	7,230,107	7,354,747	7,344,610	7,299,391	7,198,038
Industrial						
Small Industrial (< 55,000 Mcf/Yr)	166,389	211,263	212,537	211,263	211,263	211,263
Large Industrial (> 55,000 Mcf/Yr)	0	0	0	0	0	0
SC 10-Cogeneration	406,126	1,534,499	1,536,156	1,534,499	1,534,499	1,534,499
Industrial Retail Sales	572,514	1,745,762	1,748,694	1,745,762	1,745,762	1,745,762
Public Authority						
Public Authority	661,942	868,856	1,016,747	1,137,353	1,256,932	1,373,109
Street Lighting	2,141	2,259	2,262	2,259	2,259	2,259
Public Authority Retail Sales	664,083	871,115	1,019,009	1,139,612	1,259,191	1,375,368
Company Use	81,264	100,583	100,953	100,583	100,583	100,583
Total Retail Sales	48,160,766	56,013,281	55,870,052	54,915,076	54,071,927	53,027,093

National Fuel Gas Distribution Corporation
 New York Division
 Volumes in Dth

	Actual 2006	Forecast				
		2007	2008	2009	2010	2011
Residential Transportation Service						
<u>NFGDC Consolidated Billing</u>						
Aggregated MMT-Purchase of Receivables						
Residential Transportation SC 1	2,560,950	2,880,710	2,985,240	3,088,698	3,254,547	3,489,521
General Transportation SC 3	358,682	344,587	334,221	331,980	335,046	339,390
TC 1.1 (5-25 MMcf/Yr)	105,761	115,440	112,885	112,722	114,425	116,834
Subtotal Aggregated MMT-POR	<u>3,025,393</u>	3,340,737	3,432,346	3,533,400	3,704,017	3,945,745
Department of Social Service (DSS)						
DSS	649,602	739,598	754,768	761,985	773,315	784,881
Subtotal DSS	<u>649,602</u>	739,598	754,768	761,985	773,315	784,881
NFGDC Consolidated Billing	3,674,995	4,080,336	4,187,114	4,295,385	4,477,332	4,730,626
Dual Billing						
Aggregated MMT-No Purchase of Receivables						
TC-R Residential (<5,000 Mcf/Yr)	920	0	0	0	0	0
TC 1.0 (<5,000 Mcf/Yr)	1,926	0	0	0	0	0
TC 1.1 (5-25,000 Mcf/Yr)	40,140	42,228	42,461	42,228	42,228	42,228
Subtotal Aggregated MMT	<u>42,986</u>	42,228	42,461	42,228	42,228	42,228
Dual Billing	42,986	42,228	42,461	42,228	42,228	42,228
Marketer Consolidated Billing						
Aggregated MMT-No Purchase of Receivables						
Residential Transportation SC 1	1,808,816	2,202,498	2,283,726	2,363,666	2,491,432	2,672,448
General Transportation SC 3	135,379	179,126	185,734	192,235	202,626	217,348
TC 1.1 (5-25,000 Mcf/Yr)	83,732	96,296	99,849	103,343	108,929	116,843
TC 2.0 (25-55,000 Mcf/Yr)	124,398	120,338	124,773	129,141	136,123	146,014
TC 3.0 (55-150,000 Mcf/Yr)	166,983	78,869	81,778	84,639	89,214	95,697
Subtotal Aggregated MMT	<u>2,319,307</u>	2,677,127	2,775,859	2,873,025	3,028,323	3,248,349
Marketer Consolidated Billing	2,319,307	2,677,127	2,775,859	2,873,025	3,028,323	3,248,349
Residential Transportation	6,037,288	6,799,691	7,005,434	7,210,638	7,547,884	8,021,204

National Fuel Gas Distribution Corporation
New York Division
Volumes in Dth

	Actual 2006	Forecast				
		2007	2008	2009	2010	2011
Commercial						
Transportation Service						
NFGDC Consolidated Billing						
Aggregated MMT-Purchase of Receivables						
Residential Transportation SC 1 (Best Rate)	624	0	0	0	0	0
General Transportation SC 3	1,470,425	1,356,729	1,378,413	1,391,363	1,419,626	1,454,401
TC 1.1 (5-25,000 Mcf/Yr)	280,376	241,046	244,643	246,640	251,209	256,830
TC 2.0 (25-55,000 Mcf/Yr)	57,580	57,436	58,363	58,923	60,140	61,634
Subtotal Aggregated MMT-POR	1,809,005	1,655,212	1,681,419	1,696,926	1,730,975	1,772,865
NFGDC Consolidated Billing	1,809,005	1,655,212	1,681,419	1,696,926	1,730,975	1,772,865
Dual Billing						
Aggregated MMT-No Purchase of Receivables						
General Transportation SC 3	166,937	43,510	44,246	44,706	45,682	46,881
TC 1.1 (5-25,000 Mcf/Yr)	889,129	1,017,026	1,034,180	1,044,955	1,067,744	1,095,783
TC 2.0 (25-55,000 Mcf/Yr)	661,811	651,581	662,571	669,474	684,078	702,042
TC 3.0 (55-150,000 Mcf/Yr)	678,011	696,272	708,015	715,393	730,994	750,192
TC 4.1 (Non-Ind >150,000 Mcf/Yr)	260,477	255,750	256,451	255,750	255,750	255,750
Subtotal Aggregated MMT	2,656,365	2,664,140	2,705,463	2,730,278	2,784,248	2,850,649
TC 1.1 (5-25,000 Mcf/Yr)-Negotiated	43,334	105,893	106,198	105,893	105,893	105,893
SC 17 Cogeneration	109,328	45,905	46,033	45,905	45,905	45,905
Subtotal Negotiated	152,662	151,798	152,231	151,798	151,798	151,798
Aggregated MMT-No Purchase of Receivables	2,809,028	2,815,937	2,857,693	2,882,075	2,936,046	3,002,447
Dual Billing						
Daily Metered Transportation (DMT)						
TC 1.1 (5-25,000 Mcf/Yr)	45,913	0	0	0	0	0
TC 2.0 (25-55,000 Mcf/Yr)	44,502	0	0	0	0	0
TC 3.0 (55-150,000 Mcf/Yr)	221,271	155,582	158,207	159,854	163,341	167,629
Subtotal DMT	311,685	155,582	158,207	159,854	163,341	167,629
Dual Billing	3,120,713	2,971,519	3,015,900	3,041,929	3,099,387	3,170,075
Marketer Consolidated Billing						
Aggregated MMT-No Purchase of Receivables						
General Transportation SC 3	3,203,764	3,501,554	3,558,154	3,592,338	3,666,411	3,757,557
TC 1.1 (5-25,000 Mcf/Yr)	1,472,100	1,407,975	1,430,733	1,444,479	1,474,263	1,510,914
TC 2.0 (25-55,000 Mcf/Yr)	286,257	239,588	243,462	245,801	250,870	257,106
Total Aggregated MMT	4,962,121	5,149,117	5,232,348	5,282,619	5,391,543	5,525,577
Marketer Consolidated Billing	4,962,121	5,149,117	5,232,348	5,282,619	5,391,543	5,525,577
Commercial Transportation	9,891,839	9,775,848	9,929,668	10,021,474	10,221,906	10,468,518

National Fuel Gas Distribution Corporation
New York Division
Volumes in Dth

	Actual 2006	Forecast				
		2007	2008	2009	2010	2011
Industrial						
Transportation Service						
NFGDC Consolidated Billing						
Aggregated MMT-Purchase of Receivables						
General Transportation SC 3	41,459	39,959	40,210	39,959	39,959	39,959
TC 1.1 (5-25,000 Mcf/Yr)	33,068	27,650	27,823	27,650	27,650	27,650
TC 2.0 (25-55,000 Mcf/Yr)	3,523	40,921	41,178	40,921	40,921	40,921
Subtotal Aggregated MMT-POR	78,050	108,530	109,210	108,530	108,530	108,530
NFGDC Consolidated Billing	78,050	108,530	109,210	108,530	108,530	108,530
Dual Billing						
Aggregated MMT-No Purchase of Receivables						
General Transportation SC 3	13,537	9,293	9,351	9,293	9,293	9,293
TC 1.1 (5-25,000 Mcf/Yr)	1,057,075	1,312,982	1,321,208	1,312,982	1,312,982	1,312,982
TC 2.0 (25-55,000 Mcf/Yr)	1,760,772	1,817,400	1,828,588	1,817,400	1,817,400	1,817,400
TC 3.0 (55-150,000 Mcf/Yr)	1,456,213	1,574,118	1,573,256	1,567,862	1,567,862	1,567,862
TC 4.0 (>150,000 Mcf/Yr)	6,340,331	6,673,940	6,741,013	6,742,714	6,766,388	6,784,341
Subtotal Aggregated MMT	10,627,929	11,387,733	11,473,417	11,450,251	11,473,925	11,491,878
TC 1.1 (5-25,000 Mcf/Yr)-Negotiated	26,723	30,854	31,143	30,854	30,854	30,854
TC 2.0 (25-55,000 Mcf/Yr)-Negotiated	175,034	192,045	193,597	192,045	192,045	192,045
TC 3.0 (55-150,000 Mcf/Yr)-Negotiated	378,688	413,402	414,143	412,270	412,270	412,270
TC 4.0 (>150,000 Mcf/Yr)-Negotiated	2,758,349	2,924,930	2,944,373	2,935,243	2,935,243	2,935,243
SC 16 Bypass Response-Individually Negotiated	708,199	818,400	820,647	818,400	818,400	818,400
Subtotal Negotiated	4,046,994	4,379,631	4,403,902	4,388,811	4,388,811	4,388,811
Total Aggregated MMT-No Purchase of Receivables	14,674,922	15,767,364	15,877,319	15,839,062	15,862,736	15,880,689
Dual Billing						
Daily Metered Transportation (DMT)						
TC 1.1 (5-25,000 Mcf/Yr)	10,725	0	0	0	0	0
TC 3.0 (55-150,000 Mcf/Yr)	164,421	273,143	274,324	273,143	273,143	273,143
TC 4.0 (>150,000 Mcf/Yr) IND	409,636	184,141	184,776	184,141	184,141	184,141
Subtotal DMT	584,782	457,284	459,100	457,284	457,284	457,284
TC 4.0 (>150,000 Mcf/Yr) Ind-Negotiated	289,693	314,060	327,435	342,612	359,767	377,755
Subtotal Negotiated	289,693	314,060	327,435	342,612	359,767	377,755
Total DMT-No Purchase of Receivables	874,475	771,344	786,535	799,896	817,051	835,039
Dual Billing	15,549,397	16,538,708	16,663,854	16,638,958	16,679,787	16,715,728
Marketer Consolidated Billing						
Aggregated MMT-No Purchase of Receivables						
General Transportation SC 3	144,060	159,282	160,280	159,282	159,282	159,282
TC 1.1 (5-25,000 Mcf/Yr)	308,329	265,651	267,315	265,651	265,651	265,651
TC 2.0 (25-55,000 Mcf/Yr)	106,037	61,759	62,145	61,759	61,759	61,759
TC 3.0 (55-150,000 Mcf/Yr)	152,796	0	0	0	0	0
TC 4.0 (>150,000 Mcf/Yr)	554,228	726,653	739,325	736,561	736,561	736,561
Subtotal Aggregated MMT	1,265,450	1,213,344	1,229,065	1,223,252	1,223,252	1,223,252
Marketer Consolidated Billing	1,265,450	1,213,344	1,229,065	1,223,252	1,223,252	1,223,252
Industrial Transportation	16,892,897	17,860,583	18,002,129	17,970,740	18,011,569	18,047,510

National Fuel Gas Distribution Corporation
New York Division
Volumes in Dth

	Actual 2006	Forecast				
		2007	2008	2009	2010	2011
Public Authority Transportation Service						
NFGDC Consolidated Billing						
Aggregated MMT-Purchase of Receivables						
General Transportation SC 3	34,290	41,026	41,224	41,197	41,270	41,337
TC 1.1 (5-25,000 Mcf/Yr)	10,489	12,177	12,236	12,228	12,249	12,269
Subtotal Aggregated MMT-POR	44,779	53,203	53,460	53,425	53,519	53,606
NFGDC Consolidated Billing						
General Transportation SC 3	74,311	69,509	69,849	69,811	69,932	70,050
TC 1.1 (5-25,000 Mcf/Yr)	700,753	1,222,024	1,228,007	1,227,308	1,229,496	1,231,545
TC 2.0 (25-55,000 Mcf/Yr)	290,008	340,128	341,797	341,598	342,208	342,780
TC 3.0 (55-150,000 Mcf/Yr)	304,380	423,943	426,019	425,778	426,536	427,247
TC 4.1 (Non-Ind >150,000 Mcf/Yr)	1,701,056	2,332,626	2,344,055	2,342,722	2,346,893	2,350,805
Subtotal Aggregated MMT	3,070,508	4,388,230	4,409,727	4,407,217	4,415,064	4,422,426
TC 1.1 (5-25,000 Mcf/Yr)-Negotiated	4,247	7,576	7,601	7,576	7,576	7,576
TC 3.0 (55-150,000 Mcf/Yr)-Negotiated	93,690	99,268	99,572	99,268	99,268	99,268
Subtotal Negotiated	97,938	106,844	107,173	106,844	106,844	106,844
Total Aggregated MMT-No Purchase of Receivables	3,168,446	4,495,074	4,516,900	4,514,061	4,521,909	4,529,270
Dual Billing						
Daily Metered Transportation (DMT)						
TC 1.1 (5-25,000 Mcf/Yr)	56,906	0	0	0	0	0
TC 4.1 (>150,000 Mcf/Yr) Non-Ind	389,616	0	0	0	0	0
Subtotal DMT	446,522	0	0	0	0	0
Dual Billing	3,614,968	4,495,074	4,516,900	4,514,061	4,521,909	4,529,270
Marketer Consolidated Billing						
Aggregated MMT-No Purchase of Receivables						
General Transportation SC 3	815,233	923,725	928,200	927,626	929,238	930,751
TC 1.1 (5-25,000 Mcf/Yr)	1,507,074	1,414,089	1,420,944	1,420,063	1,422,533	1,424,849
TC 2.0 (25-55,000 Mcf/Yr)	328,399	340,690	342,341	342,129	342,728	343,283
TC 3.0 (55-150,000 Mcf/Yr)	239,804	131,038	131,675	131,594	131,822	132,038
TC 4.1-M (Non Industrial > 150 Mmcf/Yr)	214,755	203,755	204,742	204,614	204,969	205,304
Street Lighting	43,272	41,949	42,151	42,125	42,201	42,266
Marketer Consolidated Billing-Aggregated MMT-No POR	3,148,536	3,055,246	3,070,053	3,068,151	3,073,490	3,078,490
Marketer Consolidated Billing	3,148,536	3,055,246	3,070,053	3,068,151	3,073,490	3,078,490
Public Authority Transportation	6,808,282	7,603,523	7,640,413	7,635,637	7,648,918	7,661,367
Total Transportation	39,630,306	42,039,645	42,577,644	42,838,489	43,430,277	44,198,598
Total Throughput	87,791,072	98,052,926	98,447,695	97,753,565	97,502,204	97,225,691

NATIONAL FUEL GAS DISTRIBUTION CORPORATION
NEW YORK DIVISION
RESPONSE TO FORMAL ADMINISTRATIVE LAW JUDGE STEIN'S REQUEST
FOR INFORMATION
CASE 07-M-0548

- Q. Please provide actual annual achieved end-user energy efficiency data for 2006 and annual end-user energy efficiency forecast (electric in MWhs, gas in Decatherms) for your service territory for your own already-planned end-user energy efficiency programs each year 2007 through 2015. The data should be broken down by program and should not include peak shaving or demand response programs, and should not include NYISO or NYSERDA programs (except Con Edison should include NYSERDA programs provided solely for Con Edison). If possible, provide a description, cost per MWh or Decatherm, and total resource cost test score for each program.
- A. The Company does not have an energy efficiency program currently in place for its New York jurisdiction. The Company has proposed in its current base rate case (Case 07-G-0141) to implement an energy efficiency program. The proposed program has three general components: (1) an outreach and education program, (2) an end-use appliance efficiency program, and (3) a low income usage reduction program ("LIURP").

Attached to this response are three schedules that provide information regarding potential natural gas savings from these programs.

Schedule 1 provides potential energy savings from increased thermostat set-backs by residential customers included in company sponsored testimony submitted in its current base rate case.

Schedule 2 provides potential energy savings from the Company's proposed appliance rebate program.

Schedule 3 provides a summary of the results of the Company's currently effective LIURP program in the Company's Pennsylvania jurisdiction. The Company has designed its proposed NY LIURP program around its successful Pennsylvania program and anticipates similar results.

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1 tariffs and associated energy efficiency initiatives in California, Indiana, Maryland,
2 New Jersey, North Carolina, Ohio, Oregon, and Utah.

3 Q. What are the gains that the customer can expect from reduced consumption?

4 A. The most obvious gain is the reduction in the customer's bill from reduced
5 consumption. Customers that utilize natural gas more efficiently would save on
6 the natural gas supply rate they are charged. While they will also save, at least
7 in the short run, on the volumetric portion of their delivery rate, the delivery
8 savings are temporary while the gas cost savings are not. The volumetric
9 adjustment of their delivery rate is subject to future increases as a direct result of
10 customers' energy efficiency efforts. In other words, as customers reduce
11 consumption, the Company is unable to recover its fixed costs, resulting in lower
12 than reasonable rates of return which requires the Company to file rate cases
13 where the delivery rates must be increased. This causes unnecessary financial
14 hardship to the Company. It also sends false price signals to customers because
15 the delivery rate savings are temporary, while the natural gas supply savings are
16 not.

17 Additional benefits from energy efficiency can be expected at the
18 wellhead. Reduced natural gas consumption due to energy efficiency efforts of
19 customers will reduce overall demand for natural gas and, therefore, reduce
20 wellhead prices and price volatility. The resulting reduction in wellhead costs due
21 to energy efficiency efforts will not only accrue to customers that have made
22 those energy efficiency improvements ("participating customers"), they will
23 accrue to all customers. Reduced prices at the wellhead will also reduce energy
24 costs for manufacturers. An ACEEE study projects that the change in wholesale
25 natural gas prices in the Midwest could decline by 4.4% in 2007 and up to 11.7%

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1 in 2020 from where they would otherwise be without an energy efficiency effort in
2 the Midwest¹⁴. While it is impossible to predict precisely what the impact on
3 wellhead prices would be due to increased energy efficiency by customers on the
4 Company's system (indeed, it is doubtful that energy efficiency gains achieved
5 solely on the Company's system would have a material impact on the American
6 natural gas market), it is clear that an energy efficiency program on the
7 Company's system combined with efforts throughout the country would have a
8 positive impact on reducing demand and, consequently, prices at the wellhead.
9 More efficient gas usage and the lower wellhead prices that such efficient usage
10 would engender will contribute to the overall economic well being of the service
11 territory.

12 Q. What potential is there for increasing energy efficiency by customers on the
13 Company's system?

14 A. There appears to be significant opportunity for both increasing energy efficiency
15 by customers on the Company's system as well as maintaining the energy
16 efficiency gains that have already been achieved. Two areas in particular offer
17 significant promise: (1) thermostat reductions by customers, (2) and installation
18 of high efficiency furnaces and water heaters.

19 Regarding thermostat reduction, the United States Department of Energy
20 ("DOE"), estimates that customers can save, on average, 10% annually on their
21 heating bill from simply turning back their thermostat by 10°-15° for 8 hours. The
22 DOE estimates that savings as much as 1% for each degree can be achieved if
23 the setback period is eight hours or longer. Exhibit____(EHM-5), Schedule 1,

¹⁴ April 2005; American Council for an Energy-Efficient Economy; www.aceee.org; *Impacts of Energy efficiency and Renewable Energy on Natural Gas Markets*; Report No E052; Table 13, p. 21

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1 pages 1-3 provides information from the DOE identifying these savings
 2 estimates. Customer savings can be even greater if overall thermostat
 3 reductions are put in place. EIA estimates for savings from a 1° lower thermostat
 4 setting for the ENCD is 4 Mcf. Exhibit___(EHM-5), Schedule 1, page 4, provides
 5 the EIA information identifying this savings potential. This would represent a 4%
 6 decline in average residential usage.

7 The Company has conducted market research on customer behavior
 8 regarding thermostat settings for a number of years. That research indicates that
 9 the mean temperature that customers within the New York Division set their
 10 thermostat at is 67° when at home and is 64° when they are not at home. Table
 11 8, provides a summary of this information for the three most recent studies
 12 conducted by the Company.

Table 8. Residential Customer Thermostat Settings						
	At Home			Not At Home		
	2006	2004	2000	2006	2004	2000
Less Than 64°	17%	10%	6%	45%	35%	25%
65°- 67°	24%	18%	11%	25%	27%	27%
68°- 70°	48%	60%	64%	25%	32%	39%
71°- 73°	7%	7%	12%	4%	3%	5%
More Than 73°	3%	2%	5%	0%	0%	2%
Don't Know	1%	3%	2%	1%	3%	2%
Mean (F°)	67	68	69	64	65	66

13 As can be seen from Table 8, there is a significant potential for
 14 increasing the amount that customers reduce their thermostat when customers
 15 are not at home.

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1 Further potential for thermostat set back is available at night. Table 9,
 2 provides study results for customer behavior regarding lowering thermostats at
 3 night.

Table 9. Lower Thermostat at Night			
	2006	2004	2000
1 – 2°	11%	11%	8%
3 – 4°	20%	21%	16%
5 – 6°	12%	13%	15%
7 – 8°	4%	4%	3%
9 – 10°	3%	2%	5%
More Than 10°	1%	2%	1%
Do Not Lower Temperature	49%	47%	52%

4 While Table 9 provides evidence that customers have reacted to higher
 5 prices by lowering their thermostats, it also demonstrates that there is further
 6 potential for thermostat reductions since only 4% lower their thermostats by more
 7 than 8°. And, more important, 49% do not reduce their thermostats at all.

8 Table 10 below, estimates the potential savings in purchased gas costs if
 9 customers that currently turn back their thermostats less than 9°, reduced their
 10 thermostats by the indicated levels.

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Table 10. Potential Savings in Purchased Gas Costs from Thermostat Reductions			
	Thermostat Reduction		
	1°	3°	5°
% of Customers Lowering Thermostat less than 9° at Night	96%	96%	96%
Avg # of Residential Customers	467,882	467,882	467,882
# of Customers Lowering Thermostat less than 9° at Night	449,166	449,166	449,166
Mcf Saved per Account	1	3	5
Gas Cost Rate (\$/Mcf)	\$9.8217	\$9.8217	\$9.8217
Avg Customer Savings	\$9.82	\$29.46	\$49.11
Total Potential PGC Savings	\$4,411,558	\$13,234,674	\$22,057,790
PGC Savings at 50% Participation	\$2,205,779	\$6,617,337	\$11,028,895
PGC Savings at 25% Participation	\$1,102,890	\$3,308,669	\$5,514,448

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- Q. Does the Company have evidence that its efforts can influence customer behavior regarding energy efficiency efforts?
- A. Yes. The Company asked customers in its surveys if they would voluntarily lower their thermostat setting during an unusually cold period. The response is provided in Table 11.

Table 11. Amount of Voluntary Thermostat Setback	
Will not lower temperature	21%
Lower 5-6 degrees	4%
Lower 3-4 degrees	23%
Lower 1-2 degrees	52%

- 7 Q. Would thermostat reductions affect Company earnings?
- 8 A. If all small volume customers reduced their thermostats by 1° resulting in a 4%
- 9 decline of consumption, the Company would lose approximately \$6 million in

DIRECT TESTIMONY OF ERIC H. MEINL

1 revenue for recovery of its non-gas costs. This translates into an approximate
2 100 basis point decline in its achieved ROE.

3 Q. What is the Company proposing in this case to address the energy efficiency
4 issues?

5 A. The Company is proposing to implement the CIP program. The CIP program
6 consists of a number of initiatives designed directly to encourage customers to
7 conserve natural gas. These initiatives include:

8 (1) A proposed low income usage reduction program ("LIURP").

9 (2) A residential and commercial appliance rebate program.

10 (3) A general customer outreach and education program designed to
11 encourage customer conservation.

12 The proposed LIURP initiative was modeled after the Company's
13 successful Pennsylvania low income usage reduction program. The Company's
14 Pennsylvania LIURP has been recognized by the ACEEE as an exemplary
15 residential natural gas customer efficiency program specifically targeted to result
16 in the efficient utilization of natural gas by low income customers. Mr. Gossel
17 provides greater details regarding the proposed implementation of LIURP for the
18 Company's New York division in his testimony.

19 The Company is also proposing a residential and small commercial
20 appliance rebate program. The proposed appliance rebate program was also
21 modeled around an ACEEE exemplary natural gas energy efficiency program.
22 The specifics regarding the proposed appliance rebate program are provided in
23 the direct testimony presented by Mr. Eck.

24 The Company is further proposing a multi-media communication initiative
25 designed to encourage customer conservation in general and to educate

DIRECT TESTIMONY OF ERIC H. MEINL

1 customers on the specific energy efficiency programs offered by the Company
 2 and others. The specifics of the CIP program outreach and education proposals
 3 are provided in the direct testimony of Ms. Cox.

4 Q. What are the overall costs of the CIP program included in the Company's
 5 proposed revenue requirement for this case?

6 A. The proposed costs of the CIP program by element are provided in Table 12
 7 below.

8

Table 12. Summary of CIP Program Costs			
Program	Cost		Witness
LIURP		\$2,600,000	See the Direct Testimony of Kenneth M. Gossel
Appliance Rebates			See the Direct Testimony of Robert D. Eck
Residential	\$3,300,000		
Commercial	\$1,500,000		
Total Appliance Rebates		\$4,800,000	
Outreach and Education			See the Direct Testimony of Julie Cox
Low Income	\$1,100,000		
General	\$3,500,000		
Total Outreach and Education		\$4,600,000	
Total Proposed CIP program costs		\$12,000,000	

9

10 The Company considers this rate case as an opportunity to recognize
 11 that investment in customer conservation can be a cost effective extension of its
 12 overall role to deliver natural gas to customers' homes and businesses in a
 13 reliable least cost manner. In other words, conservation efforts, if appropriately
 14 structured so that no financial harm is inflicted upon the Company for its
 15 successful conservation efforts, can be considered an extension of the

National Fuel Gas Distribution Corp. New York Division		Residential Energy Efficiency Program - Proposed Rebates, Estimated Customer		Est. Annual Upgrades		Est. Annual Savings		Est. Equipment Installed Costs			Proposed NFG Rebate	
End Use	Equipment Type	% of Customers	# of Customers	Upgrade to	%	# of Customers	Mcf	%	Current	New	Incremental	Proposed NFG Rebate
Total # of NY Residential Customers:			482,775									
Est. # w/ Gas Space Heating and/or Water Heating:		97%	468,292									
Customers w/ Equip. Type												
Space Heating	Hot Air Furnace	75%	351,219	High (90%+)	1.5%	1,054	32.5	28.0%	\$ 2,500	\$ 3,500	\$ 1,000	\$ 300
				High (90%+)	1.0%	1,054	13.5	13.9%	\$ 2,500	\$ 3,500	\$ 1,000	\$ 300
				High (90%+)	0.5%	527	11.0	11.6%	\$ 2,500	\$ 3,500	\$ 1,000	\$ 300
				High (90%+)	0.0%	-	-	0.0%	\$ 3,500	\$ 3,500	\$ -	\$ 300
	Hot Water Boiler	20%	93,658	High (85%+)	1.5%	1,124	19.1	17.7%	\$ 2,500	\$ 4,500	\$ 2,000	\$ 400
				High (85%+)	0.0%	-	-	0.0%	\$ 4,500	\$ 4,500	\$ -	\$ 400
	Steam Boiler	5%	23,415	High (81%+)	0.5%	94	18.4	13.6%	\$ 5,000	\$ 6,500	\$ 1,500	\$ 200
				High (81%+)	0.0%	-	-	0.0%	\$ 6,500	\$ 6,500	\$ -	\$ 200
	Thermostat	100%	488,292	Auto Setback	5.0%	16,390	2.4	2.5%	\$ 25	\$ 75	\$ 50	\$ 25
				Auto Setback	0.0%	-	-	0.0%	\$ 75	\$ 75	\$ -	\$ 25
Water Heating	Storage Tank Heater	95%	444,877	Med (.61+)	1.0%	3,559	5.4	18.0%	\$ 650	\$ 1,000	\$ 350	\$ 150
				High (.78+)	0.5%	1,780	10.7	35.9%	\$ 650	\$ 1,700	\$ 1,050	\$ 350
				High (.78+)	0.5%	445	5.3	21.6%	\$ 1,000	\$ 1,700	\$ 700	\$ 350
	Tankless Heater	5%	23,415	High (.78+)	0.0%	-	-	0.0%	\$ 1,700	\$ 1,700	\$ -	\$ 350

National Fuel Gas Distribution Corp. New York Division		Residential Energy Efficiency Program - Proposed Rebates, Estimated Customer		Customer Payback on Increm. Cost		Estimated NFG Program Results			
End Use	Equipment Type	% of Customers	# of Customers	w/out NFG Rebate	w/ NFG Rebate	# of Participants	Total Annual Mcf Savings	Total Annual \$ Savings	Total Rebate Costs
			482,775						
		97%	468,292						
Space Heating	Hot Air Furnace	75%	351,219	2.6	1.8	1,054	34,223	\$ 412,726	\$ 316,097
				6.1	4.3	1,054	14,206	\$ 171,330	\$ 316,097
				7.6	5.3	527	5,775	\$ 69,648	\$ 158,048
				#DIV/0!	#DIV/0!	-	-	\$ -	\$ -
	Hot Water Boiler	20%	93,658	8.7	6.9	1,124	21,484	\$ 259,103	\$ 449,560
				#DIV/0!	#DIV/0!	-	-	\$ -	\$ -
	Steam Boiler	5%	23,415	6.8	5.9	94	1,720	\$ 20,738	\$ 18,732
				#DIV/0!	#DIV/0!	-	-	\$ -	\$ -
	The mostat	100%	468,292	1.7	0.9	16,390	39,746	\$ 479,340	\$ 409,755
				#DIV/0!	#DIV/0!	-	-	\$ -	\$ -
Water Heating	Storage Tank Heater	95%	444,877	5.4	3.1	20,242	117,155	\$ 1,412,885	\$ 1,668,289
				8.1	5.4	3,559	19,155	\$ 231,005	\$ 533,853
				11.0	5.5	1,780	19,101	\$ 230,363	\$ 622,828
	Tan (less Heater	5%	23,415	#DIV/0!	#DIV/0!	445	2,354	\$ 28,393	\$ 155,707
				#DIV/0!	#DIV/0!	-	-	\$ -	\$ -
						5,783	40,610	\$ 489,761	\$ 1,312,388
						26,025	157,765	\$ 1,902,645	\$ 2,980,677

National Fuel Gas Distribution Corp. New York Division		Small Non-Residential Energy Efficiency Program - Proposed Rebates and Estimated Customer Acceptance Levels											
Total # of NY Non-Residential Customers		34,500											
# of Large Non-Residential Customers (>12,000 Mcf)		400		1.2%									
Total Program Market Size		34,100											
End Use	Equipment Type	Customers w/ Equip. Type		Est. Customers w/ Effic. Level		Estimated Annual Gas Usage (Mcf)	Est. Annual Upgrades		Est. Gas Cost =	Est. Annual Savings			
		%	# of Customers	Efficiency	%		# of Customers	Upgrade to		%	# of Customers	%	Mcf
Space Heating	Hot Air Furnace	50%	17,050	Low (< 80 %)	50%	8,525	1000	Med (80 - 90%)	1%	85	8%	80.0	\$ 932.80
				Med (80 - 90%)	30%	5,115	900	High (> 90 %)	1%	51	6%	54.0	\$ 629.64
				High (> 90 %)	20%	3,410	800	High (> 90 %)	0%		0%		\$ -
Water Heating	Hot Water Boiler	25%	8,525	Low (< 80%)	80%	6,820	900	High (> 87%)	2%	136	7%	63.0	\$ 734.58
				High (> 87%)	20%	1,705	800	High (> 87%)	0%		0%		\$ -
Water Heating	Tank Water Heater	25%	8,525										
		95%	32,395	Low (< 50%)	80%	25,916	125	Med (60 - 80%)	2%	518	5%	6.3	\$ 72.88
				High (> 80%)	100%	1,705	100	High (> 80%)	1%	259	8%	10.0	\$ 116.60
	Tankless Water Heater	5%	1,705	Med (60 - 80%)	20%	6,479	100	High (> 80%)	1%	65	4%	4.0	\$ 46.64

Residential Low Income Single Family

***Low-Income Usage Reduction Program
National Fuel***

PROGRAM OVERVIEW

The Low-Income Usage Reduction Program (LIURP) is a mandated program designed to establish a fair, effective, and efficient energy usage program for low-income customers in Pennsylvania. All major natural gas distribution companies are required to offer programs to address low-income customer needs. This requirement is further supported by Pennsylvania's natural gas choice legislation. The Pennsylvania Public Utility Commission has regulatory oversight over the individual company programs. The regulations mandate specific activities and services, including program announcement, solicitation, income eligibility verification, energy audits, installation of efficiency measures, consumer education, post inspection, and program evaluation. However, each gas distribution company has flexibility in how it approaches provision of these services and what methods it employs to meet objectives of the regulatory mandate. As a result, there are many differences among the mandated programs.

National Fuel's program has been particularly effective at serving low-income customers under the requirement of LIURP. National Fuel's program objectives are to conserve energy; reduce residential energy bills; and improve the health, safety, and comfort levels for participating households. The reduction in energy bills should decrease the incidence and risk of payment delinquencies and the costs associated with uncollectible accounts, late payment collections, and termination of service expenses.

Households participating in National Fuel's program receive a full package of services, which include a heating system check, an energy audit, consumer education, installation of weatherization and infiltration measures, and a post-installation inspection by a National Fuel Representative.

Measures chosen must not exceed specified "payback" periods. National Fuel collects data on consumption and payment behavior for the 12-month periods before and after program measure installation for evaluation purposes.

Eligibility requirements for LIURP are:

- Income under the 200% federal poverty guidelines.
- Natural gas consumption must be a minimum of 130 Mcf (thousand cubic feet) per year.
- Must be in arrears for a past due balance.
- Must have been an active account and resident of the household for at least one year prior to weatherization.

Some LIURP funds are available for a corollary program, Heating/Water Heating Repair or Replacement. This program allows for the repair or replacement of faulty, hazardous, or non-

Residential Low Income Single Family

operational primary heating/water heating equipment for certain National Fuel customers who meet the following eligibility requirements:

- Active account using natural gas for heat.
- Income under the 200% federal poverty guidelines.
- Owner/occupant living in particular household at least one year with the intent of living in the dwelling at least a year after measure installation.
- Renters (tenants) are not eligible.

Clients under the Heating/Water Heating Repair or Replacement Program are screened and referred to National Fuel by the agencies that administer the Neighbor-for-Neighbor Heat Fund. Due to funding limitations, customers receive priority on a first-come, first-served and needs basis throughout National Fuel's territory. A National Fuel representative or contractor visits the homes of clients to initiate services. If only repairs are necessary, the qualified heating contractor immediately corrects the problem. If the equipment has been tagged, shut off, or cannot be repaired, the representative or contractor will verify the problem and properly size replacement equipment. In a majority of cases where installation of new equipment is warranted, the customer also may be eligible for LIURP weatherization. If applicable to LIURP, the equipment is sized as though the home has already been weatherized. Soon after the equipment installation, weatherization is performed. This procedure assures that the new equipment will not be oversized while it addresses the hazardous or no-heat situation immediately.

Normally the arrangement to repair or replace the equipment is made within 48 hours of referral notification. In many instances, additional work is required to improve efficiencies or to have a safe, proper installation. These may include piping changes, addition or revamping of duct work, and thermostat changes. Replacements will not be made where malfunctioning was caused by physical abuse, structural problems (e.g., flooding basements), or when there are other health and safety issues. Normally repairs over \$400 and heating/water heating replacements are post-inspected by a National Fuel representative.

National Fuel staff perform a "drive-by" analysis of potential participants after they qualify for LIURP based on consumption, income, arrearage status, and residency requirements. This evaluation determines inclusion in the program. It also identifies dwellings that may be rejected due to a number of factors, including prior participation in weatherization assistance programs, ineligible housing types (e.g., apartment houses, government housing, mobile homes, brick or stone homes, and houses that require too many fundamental repairs to prepare it for weatherization).

Once potential clients are judged eligible for the program and their names are subsequently provided to a contractor, over 70% of them receive full services. National Fuel sends a letter to customers, which briefly describes the program and identifies the contractor assigned to the job. This minimizes administrative costs by the contractor and increases acceptance and confidence in the selected contractors by clients. National Fuel maintains records of the addresses of all homes that are rejected for the program for any reason. This prevents a future drive-by analysis if the address shows up with the name of another party who may be eligible in the future. If a client that was eligible moves before the name was submitted to a contractor, the address is held in a

file for sites “okay to weatherize, but not currently eligible.” If the new party resides in the home for a year, the party may then be eligible for program services. This system of record-keeping allows National Fuel to maintain a backlog of homes that may later qualify for services, which in turn can expedite a listing of potential clients to a contractor when new names are requested.

By establishing income eligibility at 200% of the federal poverty level, LIURP is able to serve many clients who otherwise fail to qualify for other programs that typically set an upper limit at 150% of the federal poverty level. LIURP complements and supplements other low-income programs, particularly filling in voids that occur when non-profit organizations deplete their funding. At times, many of the non-profit agencies can “piggy-back” services with LIURP services to perform a complete job. This is to the benefit of the non-profit agencies, as their clients are typically addressed on a “first come, first served” basis, while National Fuel’s eligible clients are more selectively chosen based on energy efficiency potential.

The program also educates its clients about ongoing no- or low-cost actions they can take to reduce their energy use and costs. At post inspection, program staff normally give a number of such tips, including:

- Check and/or change filters every 30 days in heating season.
- Turn water heater setting as low as possible and try turning down thermostat at night and/or when no one is home by at least 5–8° F.
- Close storm windows in the winter.
- Do not block registers.
- Utilize shades and drapes to heat and cool.

PROGRAM PERFORMANCE

The National Fuel Low-Income Usage Reduction Program has a long record of success in serving low-income households. Program results are summarized below:

<u>2001</u>	<u>Annual Average (1994/2001)</u>	
Full-service jobs completed	191	210
Mean energy reduction (MCF)	54	57
Mean energy reduction (%)	28	27
Mean cost per MCF reduced	\$63	\$62
Average annual bill reduction	\$452	\$456
Total participant reduction in sales due to weatherization	\$108,455	\$87,596

Since the program’s inception in 1988, LIURP has served over 3,100 low-income households.

Customers are periodically surveyed about the program, and have generally been very satisfied with the program. The comments below typify customer responses:

- *House feels much warmer, more comfortable.*
- *House was cooler in the summer.*
- *House is quieter.*

- *Furnace does not run as much as before.*
- *Bills not as high so easier to pay.*
- *Crew was very cordial, good workers, etc.*
- *Thanks—didn't know such a service was available at no cost.*
- *I never bad-mouth the utility—they've been good to me.*

LESSONS LEARNED

Long-running programs like LIURP provide time for program services to evolve and change. Some of the changes that LIURP has enacted over the program's life to improve its services and respond better to customer needs include:

- Wall insulation was added as a measure in mid-1994, which significantly reduced consumption in those households.
- Furnace replacement along with weatherization began in 1999. This measure, along with the proper sizing of replacement furnaces, reduced consumption by over one-half in some cases.
- In the mid-1990s, a cap of \$450 was established for incidental repairs. Earlier customer and some contractors were more interested in esthetics and a remodeling aspect rather than energy reduction.
- Replacement of incandescent bulbs with compact fluorescent bulbs has required inter-utility coordination. Some electric utilities cover the costs of CFLs provided by the program's non-profit contractors. To maintain program consistency, National Fuel pays for up to three CFLs to the contracting agencies in cases where customers are served by electric utilities that do not provide CFLs.
- Furnaces replaced under the Heating/Water Heating Repair or Replacement Program are not used in the evaluation since no weatherization services were provided. However, this measure generates the most positive customer feedback from customers because of improved safety and the immediacy of installation and energy savings. This program service serves many households that might not otherwise be eligible, since many programs cap eligibility at 150% of federal poverty guidelines, while LIURP serves customers up to 200% of these guidelines.
- Contractors receive routine feedback. When the mandated annual LIURP Activity Report is sent to the Pennsylvania Public Utility Commission each spring, information is also provided to program contracts on their activity and performance. This information includes a list of homes they weatherized, 12-month pre- and 12-month post-consumption history, dollars spent per site, percent energy reduction, and payback. Another chart provided to contractors presents their activity by year where their participation in the program is measured by such data as number of jobs, service provided (full or partial weatherization), cost per job, average MCF saved per job, payback, customer feedback, and timeliness of completions. National Fuel also uses these data for contractor evaluation.

National Fuel's LIURP is exemplary for the success and innovation it has achieved for delivery of energy efficiency services to low-income households. LIURP has yielded a successful collaboration among non-profit and for-profit contractors in locations where there was little prior

Low-Income Usage Reduction Program, National Fuel

cooperation and mutual trust. It also has established clear priorities among potential recipients referred from local community action programs, federal/state programs (LIHEAP), and other sources in order to address those households with greatest need and to be able to have the greatest impact in energy and related cost savings.

Residential Low Income Single Family

PROGRAM AT A GLANCE

Program name: Low Income Usage Reduction Program

Targeted customer segment: Low income residential homeowners

Program start date: 1988

Program participants: In 2001, there were 191 participants. Since the program began, it has served over 3,100 households.

Approximate eligible population: Not available

Participation rate: Not available

Annual energy savings: 2001 program results = 54 MCF (540 therms) per job and 10,314 MCF (103,140 therms) total; cumulative annual program savings = 132,675 MCF (1,326,750 therms)

Cost effectiveness: \$69/MCF saved

Budget

Year	Program Costs
2001	\$971,167
2002	1,227,394
2003 (preliminary)	992,280
2004 (not available)	

Funding source: Funding for LIURP is mandated at 0.4% of gross revenues per National Fuel's 1994 rate case before the Pennsylvania PUC. Customers pay no costs for program services.

Best person to contact for information about the program:

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