

LAW OFFICES
McWhirter, Reeves, McGlothlin, Davidson, Rief & Bakas, P.A.

100 NORTH TAMPA STREET, SUITE 2800
TAMPA, FLORIDA 33602-5126

MAILING ADDRESS: TAMPA
P.O. Box 3350, TAMPA, FLORIDA 33601-3350

TELEPHONE (813) 224-0800

FAX (813) 221-1854

CABLE: GRANDLAW

PLEASE REPLY TO:
TALLAHASSEE

46
TALLAHASSEE OFFICE
117 S. GADSDEN
TALLAHASSEE, FLORIDA 32301

TELEPHONE (904) 222-2525

FAX (904) 222-5000

ORIGINAL
FILE COPY

LYNWOOD F. ARNOLD, JR.
JOHN W. BAKAS, JR.
HARRY LEE COE, IV
LINDA DARRBY HARTLEY
C. THOMAS DAVIDSON
STEPHEN O. DECKER
LINDA E. JORGE
VICKI GORDON KAUFMAN
JOSEPH A. MCGLOTHLIN
JOHN W. MCWHIRTER, JR.
RICHARD W. HEEVEN
FRANK J. RIEF, III
DAVID W. STRAIN
PAUL A. STRANER

August 18, 1997

HAND DELIVERED

Blanca S. Bayò, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 870478-GU, In Re: Review to Determine Cost Effectiveness of Conservation Programs of City Gas Company of Florida

Dear Ms. Bayò:

Enclosed for filing and distribution are the original and five copies of the Notice of Filing Cost-Effectiveness Evaluation of Energy Conservation Programs by City Gas Company of Florida and Request for Program Approval in the above docket.

Please acknowledge receipt of the above on the extra copy enclosed herein and return it to me. Thank you for your assistance.

Sincerely,

Joe A. McGlothlin

Joseph A. McGlothlin

RECEIVED & FILED

11/5 5:05
FPSC-BUREAU OF RECORDS

CK _____
AFA _____
APP _____
CAF _____
CMU _____
CIP _____
EAS _____
LH _____

JAM/sjm

Enclosure

DOCUMENT NUMBER-DATE

08367 AUG 19 97

FPSC-RECORDS/REPORTING

ORIGINAL
FILE COPY

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Review to Determine Cost)
Effectiveness of Conservation Programs of)
City Gas Company of Florida.)

DOCKET NO. 970478-GU

Submitted for Filing
August 18, 1997

**NOTICE OF FILING COST-EFFECTIVENESS EVALUATION OF
ENERGY CONSERVATION PROGRAMS BY CITY GAS COMPANY OF
FLORIDA AND REQUEST FOR PROGRAM APPROVAL**

City Gas Company of Florida, an operating division of NUI Corporation, ("City Gas" or "the Company"), hereby gives notice of filing its cost-effectiveness evaluation of Energy Conservation Programs in compliance and conformance with the requirements of Rule 25-17.009, Florida Administrative Code City Gas requests approval of its revised Residential Home Builder and Appliance Replacement Programs; and requests approval of its new Residential Propane Conversion, Residential Water Heater Retention, Residential Cut and Cap Alternative, Commercial/Industrial Conversion, and Commercial/Industrial Alternative Technology Programs.

1. The Company has completed its evaluation of Energy Conservation Programs using the methodologies prescribed by Rule 25-17.009 and the accompanying Florida Public Service Commission Cost Effectiveness Manual for Natural Gas Utility Demand Side management programs. All programs now being submitted are and will be cost-effective, at anticipated levels of program participation.

DOCUMENT NUMBER-DATE

08367 AUG 1997

FPSC-RECORDS/REPORTING

incentive allowances, and program administrative costs, on a system-wide basis for the Company's energy conservation program planning horizon.

2. This comprehensive filing of cost-effectiveness evaluations conforms with Rule 25-17.009 and the Gas DSM Cost Effectiveness Manual, and fully complies with the requirements established for this docket. As a result of its analysis, the Company requests approval of the following demand side management programs.

**PROGRAM 1: CITY GAS COMPANY OF FLORIDA
RESIDENTIAL BUILDER PROGRAM**

3. The Residential Builder Program is designed to increase the overall energy efficiency in the residential new construction market by promoting energy efficient natural gas appliances in residences that would qualify for the Company's RS rates. The purpose of the Residential Builder Program is to promote the energy efficient advantages of natural gas appliances to residential builders for those residential end uses where natural gas is best suited to reduce the ultimate consumer's overall energy costs. The program offers builders and developers incentives in the form of cash allowances to assist in defraying the additional costs associated with the installation of natural gas supply lines, house piping, venting and natural gas appliances. The revised incentives offered under this program have been established at levels that conform to the Company's RIM and Participant Test analysis. An

incentive has also been added for the new Triathlon natural gas heat pump, or an equivalent unit.

4. The residential construction market is very price competitive. The concerns of residential builders focus more on the reduction of construction costs than on energy conservation or the long-term effect on Florida ratepayers. Builders and developers are reluctant to install natural gas house piping due to higher installation costs and higher natural gas appliance costs. The cash allowances for the installation of energy efficient natural gas appliances lower the first cost, which allows builders and developers to install natural gas in many instances. Cost effectiveness data for the Residential Builder Program is attached hereto as Exhibit A. This analysis supports the following incentives to be offered under the program.

Furnace	\$ 350
Water Heater	\$ 350
Clothes Dryer	\$ 100
Range	\$ 100
Natural Gas Heat Pump	\$ 1200

**PROGRAM 2: CITY GAS COMPANY OF FLORIDA
MULTI-FAMILY RESIDENTIAL BUILDER PROGRAM**

5. The Multi-Family Residential Builder Program is designed to increase overall energy efficiency in the multi-family new construction market by promoting energy efficient natural gas in multi-unit residences qualifying for the Company's CS rates. Cost effectiveness data for the Multi-Family Residential Builder Program is attached hereto as Exhibit B. As the Company's analysis supports a maximum cash

allowance of \$300 per dwelling unit, no modifications have been made to the existing incentives.

PROGRAM 3: CITY GAS COMPANY OF FLORIDA RESIDENTIAL APPLIANCE REPLACEMENT PROGRAM

6. The Residential Appliance Replacement Program is the same as the Company's existing Electric Resistance Appliance Replacement Program with two changes. First, an incentive is allowed for the Natural Gas heat pump. Second, the incentives have been adjusted to conform to the Company's RIM and Participant Test analysis.

7. The Residential Appliance Replacement Program is designed to promote the replacement of inefficient non-natural gas residential appliances with energy efficient natural gas appliances. Often residential consumers only consider replacing inefficient appliances with the same type of appliance, without taking into account the operating savings provided by energy efficient natural gas appliances. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the installation of efficient natural gas appliances. The cash allowances reduce the first cost for the installation of the natural gas supply lines, house piping, venting, and the purchase or lease of energy efficient natural gas appliances. Cost effectiveness data for the Residential Appliance Replacement Program is attached hereto as Exhibit C. This analysis supports the following incentives based on the type of appliance(s) being installed.

Furnace	\$ 625
Water Heater	\$ 525
Clothes Dryer	\$ 100
Range	\$ 100
Natural Gas Heat Pump	\$1200

**PROGRAM 4: CITY GAS COMPANY OF FLORIDA
DEALER PROGRAM**

8. The Gas Appliance Dealer / Contractor Program is an existing City Gas Program that has not been changed in any manner. The program is designed to encourage the replacement of non-gas appliances with energy efficient natural gas appliances through appliance dealers and contractors. Cost effectiveness data for the Dealer Program is attached hereto as Exhibit D. This analysis supports the following incentives to appliance dealers and contractors for the promotion of energy efficient natural gas appliances to residential appliance purchasers.

Furnace	\$30
Water Heater	\$30
Clothes Dryer	\$15
Range	\$15

**PROGRAM 5: CITY GAS COMPANY OF FLORIDA
GAS APPLIANCES IN SCHOOLS PROGRAM**

9. The Gas Appliances in Schools Program is an existing City Gas Program that has not been changed in any manner. It is designed to promote natural gas appliances where cost-efficient in Home Economic Departments in schools located in the company's service area. The program includes the installation of energy

efficient natural gas ranges. The program provides teaching assistance on energy conservation and on the use, care, and safety of natural gas appliances through a company employed home economist. Cost effectiveness data for the program is attached hereto as Exhibit E.

**PROGRAM 6: CITY GAS COMPANY OF FLORIDA
RESIDENTIAL PROPANE CONVERSION PROGRAM**

10. The Residential Propane Conversion Program is a new program designed to promote the conversion of existing residential propane appliances to efficient natural gas. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the conversion of their existing propane appliances to utilize natural gas. The cash allowances reduce the cost of the natural gas supply lines, upgrading of house piping, venting and the conversion of existing appliances to utilize natural gas.

11. Cost effectiveness data for the Residential Propane Conversion Program is attached hereto as Exhibit F. This analysis supports the following incentives based on the type of appliance(s) being converted.

Furnace	\$200
Water Heater	\$100
Clothes Dryer	\$ 50
Range	\$ 25

**PROGRAM 7: CITY GAS COMPANY OF FLORIDA
RESIDENTIAL WATER HEATER RETENTION PROGRAM**

12. The Residential Water Heater Retention Program is a new program designed to promote the retention of energy efficient natural gas water heaters in existing residential structures. Often residential consumers only consider the initial price when replacing home appliances without consideration to the operating savings provided by energy efficient natural gas appliances. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the purchase and installation of energy efficient natural gas appliances. Cost effectiveness data for this program, attached hereto as Exhibit G, supports the following incentive.

Water Heater

\$ 50

**PROGRAM 8: CITY GAS COMPANY OF FLORIDA
RESIDENTIAL CUT AND CAP ALTERNATIVE PROGRAM**

13. The Residential Cut and Cap Alternative Program is a new program designed to encourage the re-activation of existing residential service lines that are scheduled to be cut and capped, pursuant to Florida Public Service Commission requirements. The process of cutting and capping an existing service line is expensive, and limits energy options to current and future occupants of the dwelling. Residential consumers are sometimes unaware of the existence of existing natural gas service line, or after many years without natural gas, believe it would be too

expensive to reinstate service. This program provides for an incentive over and above the Residential Appliance Replacement Program to encourage residential consumers to install energy efficient natural gas appliances prior to any expenditure to retire the service line. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the purchase and/or lease and the installation of energy efficient natural gas appliances. Cost effectiveness data, attached hereto as Exhibit H, supports the following incentive.

Service Re-activation	\$200
-----------------------	-------

**PROGRAM 9: CITY GAS COMPANY OF FLORIDA
COMMERCIAL/INDUSTRIAL CONVERSION PROGRAM**

14. The Commercial/Industrial Conversion Program is a new program designed to promote the conversion of commercial and industrial inefficient non-gas equipment to energy efficient natural gas. The program provides for a cash incentive of \$75.00 per 100,000 Btu input rating. The incentive is to assist in defraying the incremental first costs associated with the installation of natural gas supply lines, internal piping, venting and equipment. Cost effectiveness data, supporting this incentive level, is attached hereto as Exhibit I.

15. The program is limited to existing commercial and industrial businesses located in existing structures. The program will be promoted by the company to

equipment suppliers, natural gas supplier representatives and commercial and industrial business owners through the company's commercial and industrial sales representatives and approved third party marketing companies. Commissioned sales representatives for approved third party marketing companies may be eligible for a Company-paid commission for new customer conversions. The Company will additionally promote the program through appropriate use of media advertising and trade shows.

**PROGRAM 10: CITY GAS COMPANY OF FLORIDA
COMMERCIAL INDUSTRIAL ALTERNATIVE
TECHNOLOGY INCENTIVE PROGRAM**

16. The Commercial/Industrial Alternative Technology Incentive (ATI) Program is a new program designed to encourage commercial and industrial business owners or managers to install alternate technologies that utilize natural gas that are not otherwise covered by one of the other City Gas Energy Conservation Programs, but which cost-effectively reduce the total utility expense of the business. This program is closely patterned after the Business Custom Incentives Program that was approved by this Commission in Order No. PSC-95-0691-FOF-EG, Issued June 9, 1995 in Docket No. 941170-EG.

17. Natural gas alternative technologies can greatly reduce the annual energy expenses for a business, but can carry a significant first cost differential as compared to existing technology powered by other fuels. Often the annual operational savings achieved through greater energy efficiencies are not enough of an incentive for

business owners to choose natural gas technologies due to a payback duration greater than three years. The intent of this program is to reduce the simple payback period to three years subject to a maximum incentive of three times the projected incremental annualized margin.

18. In order for a project to qualify under this program, it must not qualify for another City Gas program and must provide a positive life cycle savings to the customer. Both retrofit and new construction projects are eligible. In order to qualify for the incentive, the Rate Impact Measure (RIM) Test benefit-to-cost ratio of a project, including incentive, must be at least 1.01. Additionally, the project must pass the Participant Test.

19. Incentives are based on the cost-effectiveness under a life-cycle analysis utilizing a computerized energy consumption simulation model such as the Department of Energy's DOE-2.1E model, the Trane Corporation's Trace model or other similar such model approved by City Gas. The incentive amount is based on the three year estimated annual energy savings for the project and the first cost differential. The incentive amount shall not cause the customer's payback to be less than three years and shall not exceed three times the estimated incremental annual margin to City Gas. The number and timing of payments toward the total incentive amount will be solely determined by City Gas for each project on an individual basis.

20. Any customer receiving an incentive under this program must remain served by City Gas for the behind-the-city-gate portion of their natural gas transportation requirements for at least five years from the date of the payment of the incentive, or the customer shall refund the incentive in full to City Gas. City Gas will be solely responsible for determining the eligibility of any project, performing the RIM and Participants cost-effectiveness tests, determining the appropriateness of life-cycle analysis model inputs and assumptions, and the amount and timing of the incentive payments. The program is not available for temporary installations.

21. City Gas has incorporated into the Alternative Technologies Incentive Program the projected possible energy conservation contributions of gas cooling technologies. City Gas anticipates measures other than gas cooling technologies in the Program, but due to the enormous variability of equipment sizes, possible installation configurations and operating scenarios, City Gas cannot meaningfully quantify the projected contributions from these measures at this time.

22. City Gas has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.009 to determine the cost-effectiveness of this program. The analysis for possible gas cooling measures are shown in Attachment J. For other measures, City Gas cannot predict at this time the energy cost reductions that will result, so cost-effectiveness evaluations will be performed at the time such measures are proposed for participation in the Program.

23. Measures with which City Gas or one of its affiliated companies has significant experience and/or confidence as to the performance characteristics will require, at a minimum, an engineering analysis utilizing an appropriate computer simulation model. City Gas, at its determination, may also require a feasibility study performed by an independent, registered professional engineer, and/or field monitoring of the project. Measures with which City Gas or one of its affiliated companies has no experience or confidence with the performance characteristics will require field monitoring/measurement of the project's performance. The costs for all monitoring equipment and activities will be recognized in the cost-effectiveness determination for each project.

WHEREFORE, City Gas Company of Florida respectfully requests that this Honorable Commission approve the conservation programs filed herein for Energy Conservation Cost Recovery.

Respectfully submitted this 18th day of August, 1997.


Joseph A. McGlothlin
Vicki Gordon Kaufman
McWhirter, Reeves, McGlothlin,
Davidson, Rief & Bakas, P.A.
117 South Gadsden Street
Tallahassee, Florida 32301
Telephone: (904) 222-2525

Attorneys for City Gas, a Division of NUI
Corporation

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the City Gas Company of Florida's Cost Effectiveness Evaluation of Conservation Programs has been furnished by hand delivery to the following, this 18th day of August, 1997:

Robert Elias, Esquire
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399

Mr. Joseph Dillmore
Bureau of Gas Regulation
Division of Electric and Gas
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399


Joseph A. McGlothlin
Victor Gordon Kaufman
McWhirter, Reeves, McGlothlin,
Davidson, Rief & Bakas, P.A.
117 South Gadsden Street
Tallahassee, Florida 32301
Telephone: (904) 222-2525

Attorneys for City Gas, a Division of NUI
Corporation

City Gas Company of Florida
Residential Builder Program

August 1997

The Residential Builder Program is designed to increase the overall energy efficiency in the residential new construction market by promoting energy efficient natural gas appliances. The purpose of the program is to promote the energy efficient advantages of natural gas appliances to residential builders for those residential end uses where natural gas is best suited to reduce the ultimate consumer's overall energy costs. The program offers builders and developers incentives in the form of cash allowances to assist in defraying the additional costs associated with the installation of natural gas supply lines, house piping, venting and natural gas appliances.

The new residential construction market is very price competitive. The concerns of residential builders focus more on the reduction of construction costs than on energy conservation or the long term effect on Florida ratepayers. Builders and developers are reluctant to install natural gas house piping due to higher installation costs and higher natural gas appliance costs. The cash allowances for the installation of energy efficient natural gas appliances lower the first cost to a comparable level for other forms of energy. The reduction of the first cost for natural gas allows builders and developers to choose to install natural gas more often.

Furnace	\$ 350
Water Heater	\$ 350
Clothes Dryer	\$ 100
Range	\$ 100
Triathlon	\$ 1,200

**City Gas Company of Florida
 Energy Conservation Program Analysis
 Summary of Cost-Effectiveness Ratios**

Residential Builder Program

Central Region

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	RIM B/C Ratio
Furnace	350	1.16	1.07
Water Heater	350	1.11	1.01
Clothes Dryer	100	1.23	1.52
Range	100	1.11	1.57
Triathlon	1200	1.12	1.13

South Region

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	RIM B/C Ratio
Water Heater	350	1.04	1.01
Clothes Dryer	100	1.15	1.52
Range	100	1.08	1.57
Triathlon	1200	1.08	1.08

All Regions, All Appliances
 (weighted, projected actual)

1.13

**City Gas Company of Florida
 Energy Conservation Program Analysis
 Summary of Cost-Effectiveness Ratios**

Residential Builder Program

Central Region

Installed Appliances				Incentive Amount	Participant Test	RIM Test
F	W	D	R			
	X			350	1.11	1.01
	X	X		450	1.13	1.05
	X	X	X	550	1.13	1.08
X	X	X	X	900	1.29	1.21

Southern Region

Installed Appliance				Incentive Amount	Participant Test	RIM Test
F	W	D	R			
	X			350	1.04	1.01
	X	X		450	1.08	1.05
	X	X	X	550	1.08	1.08

RATE IMPACT MEASURE

Residential Builder Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
1460

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 660,760	\$ 29,200	\$ 689,960	\$ 288,110	\$ 158,176	\$ 188,900	\$ 74,566	\$ 956,000	\$ -	\$ 1,644,782
1998	1,334,737	29,200	1,363,937	577,943	312,635	174,997	153,658	956,000	-	2,175,243
1999	2,022,125	29,200	2,051,325	875,584	483,517	180,247	237,417	956,000	-	2,712,765
2000	2,723,130	29,200	2,752,330	1,178,119	610,958	185,654	326,052	956,000	-	3,257,785
2001	3,437,951	29,200	3,467,151	1,488,637	755,088	191,224	419,782	956,000	-	3,810,743
2002	3,472,332	-	3,472,332	1,503,524	729,794	-	432,388	-	-	2,665,704
2003	3,507,056	-	3,507,056	1,518,559	705,345	-	445,358	-	-	2,669,261
2004	3,542,128	-	3,542,128	1,533,745	681,716	-	458,718	-	-	2,674,179
2005	3,577,547	-	3,577,547	1,549,081	658,879	-	472,480	-	-	2,680,441
2006	3,613,321	-	3,613,321	1,564,571	638,806	-	486,654	-	-	2,688,033
2007	3,649,453	-	3,649,453	1,580,218	615,473	-	501,254	-	-	2,696,947
2008	3,685,947	-	3,685,947	1,596,022	594,656	-	516,292	-	-	2,707,167
2009	3,722,808	-	3,722,808	1,611,981	574,927	-	531,780	-	-	2,718,688
2010	3,760,033	-	3,760,033	1,628,101	566,867	-	547,734	-	-	2,731,501
2011	3,797,632	-	3,797,632	1,644,382	537,053	-	564,166	-	-	2,745,602
2012	3,835,609	-	3,835,609	1,660,827	519,061	-	581,091	-	-	2,760,979
2013	3,873,984	-	3,873,984	1,677,435	501,673	-	598,523	-	-	2,777,632
2014	3,912,705	-	3,912,705	1,694,209	484,667	-	616,479	-	-	2,795,554
2015	3,951,832	-	3,951,832	1,711,151	468,624	-	634,973	-	-	2,814,748
2016	3,991,349	-	3,991,349	1,728,262	452,925	-	654,023	-	-	2,835,210

Present Value
of Benefits

\$33,812,166

Present Value
of Costs

\$29,912,645

Benefit/Cost Ratio	1.13
-----------------------	------

City Gas Company of Florida
Multi-Family Residential Builder Program

August 1997

The Multi-Family Residential Builder Program is designed to increase the overall energy efficiency in the multi-family residential new construction market by promoting energy efficient natural gas equipment. The purpose of the program is to promote the energy efficient advantages of natural gas equipment to multi-family residential builders for those master metered multi-family residential end uses where natural gas is best suited to reduce overall energy costs. The program offers builders and developers of multi-family dwellings, of 5 or more units, incentives in the form of cash allowances. Up to \$300.00 per dwelling unit is available to assist in defraying the additional costs associated with the installation of natural gas supply lines, gas piping, venting and natural gas equipment.

The concerns of multi-family residential builders focus more on least first cost construction than on energy conservation or the long term effect on Florida ratepayers. Builders and developers are reluctant to install natural gas due to higher installation costs and higher natural gas equipment costs. The cash allowances for the installation of master metered energy efficient natural gas appliances lower the first cost to a comparable level for other forms of energy. The reduction of the first cost for natural gas allows builders and developers to choose to install natural gas more often.

Per dwelling unit \$300

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios**

Multi-Family Residential Builder Program

(20 unit building)

Installed Equipment	Incentive Amount (\$)	Participants B/C Ratio	RIM B/C Ratio
Central Water Heater	3,983	1.11	1.17

RATE IMPACT MEASURE

Multi-Family Residential Builder Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
20

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 108,123	\$ 900	\$ 109,023	\$ 74,480	\$ 10,870	\$ 5,000	\$ 2,840	\$ 79,260	\$ -	\$ 172,230
1998	218,407	900	219,307	150,409	21,484	5,150	5,438	79,260	-	281,742
1999	330,867	900	331,767	227,870	31,853	5,305	8,402	79,260	-	352,690
2000	445,565	900	446,465	308,885	41,985	5,464	11,539	79,260	-	445,113
2001	562,564	900	563,464	387,417	51,860	5,828	14,857	79,260	-	539,051
2002	566,190	-	566,190	391,291	50,151	-	15,302	-	-	456,745
2003	573,872	-	573,872	395,204	48,471	-	15,781	-	-	459,437
2004	579,811	-	579,811	398,158	48,848	-	16,234	-	-	482,238
2005	585,407	-	585,407	403,148	45,278	-	16,721	-	-	485,148
2006	591,281	-	591,281	407,179	43,781	-	17,223	-	-	488,183
2007	597,174	-	597,174	411,251	42,295	-	17,740	-	-	471,286
2008	603,146	-	603,146	415,384	40,879	-	18,272	-	-	474,514
2009	609,177	-	609,177	419,518	39,509	-	18,820	-	-	477,847
2010	615,289	-	615,289	423,713	38,188	-	19,385	-	-	481,283
2011	621,422	-	621,422	427,950	36,908	-	19,968	-	-	484,822
2012	627,636	-	627,636	432,230	35,670	-	20,565	-	-	488,465
2013	633,912	-	633,912	436,552	34,475	-	21,182	-	-	492,209
2014	640,251	-	640,251	440,918	33,320	-	21,818	-	-	496,056
2015	646,654	-	646,654	445,327	32,204	-	22,472	-	-	500,003
2016	653,121	-	653,121	449,780	31,125	-	23,148	-	-	504,051

Present Value
of Benefits

\$5,516,650

Present Value
of Costs

\$4,724,698

Benefit/Cost Ratio	1.17
-----------------------	------

DOCKET NO. 970478-CX

EXHIBIT B

PAGE 3 OF 3

City Gas Company of Florida

Residential Appliance Replacement Program

August 1997

The Residential Appliance Replacement Program is designed to promote the replacement of inefficient non-natural gas residential appliances with energy efficient natural gas appliances. Often residential consumers only consider replacing inefficient appliances with the same type of appliance without consideration to the operating savings provided by energy efficient natural gas appliances. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the installation of efficient natural gas appliances. The cash allowances reduce the first cost for the installation of the natural gas supply lines, house piping, venting, and the purchase or lease of energy efficient natural gas appliances.

The incentive is based on the type of appliance(s) being installed.

Furnace	\$ 625
Water Heater	\$ 525
Clothes Dryer	\$ 100
Range	\$ 100
Triathlon	\$1,200

**City Gas Company of Florida
 Energy Conservation Program Analysis**

Residential Appliance Replacement Program

Central Region

Installed Appliance	Incentive	Participants B/C Ratio	RIM B/C Ratio
Furnace	\$525	1.05	1.06
Electric			
Propane		1.73	1.06
Water Heater	\$525	1.11	1.02
Electric			
Propane		1.25	1.02
Clothes Dryer	\$100	1.23	1.15
Range	\$100	1.08	1.25
Triathlon	\$1200	1.07	1.09

Southern Region

Installed Appliance	Incentive	Participants B/C Ratio	RIM B/C Ratio
Water Heater	\$525	1.11	1.02
Electric			
Propane		1.25	1.02
Clothes Dryer	\$100	1.23	1.15
Range	\$100	1.08	1.25
Triathlon	\$1200	1.11	1.10

All Regions, All Appliances
 (weighted, projected actual)

1.02

RATE IMPACT MEASURE

Residential Appliance Replacement Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
759

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Adm'n & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 174,143	\$ 11,100	\$ 185,243	\$ 68,291	\$ 41,511	\$ 124,857	\$ 29,415	\$ 329,295	\$ -	\$ 593,169
1998	351,768	11,100	362,868	137,947	82,048	128,397	60,595	329,295	-	738,280
1999	532,928	11,100	544,028	208,991	121,642	132,249	93,619	329,295	-	885,797
2000	717,878	11,100	728,778	281,440	160,335	136,218	128,570	329,295	-	1,035,857
2001	906,068	11,100	917,168	355,317	198,180	140,303	165,534	329,295	-	1,188,609
2002	915,130	-	915,130	358,870	191,522	-	170,500	-	-	720,893
2003	924,283	-	924,283	362,458	185,108	-	175,815	-	-	723,178
2004	933,527	-	933,527	366,080	178,905	-	180,884	-	-	725,867
2005	942,863	-	942,863	369,742	172,911	-	186,310	-	-	728,962
2006	952,291	-	952,291	373,438	167,119	-	191,900	-	-	732,458
2007	961,814	-	961,814	377,171	161,520	-	197,657	-	-	736,347
2008	971,431	-	971,431	380,944	156,109	-	203,586	-	-	740,640
2009	981,145	-	981,145	384,754	150,680	-	209,694	-	-	745,328
2010	990,958	-	990,958	388,602	145,825	-	215,985	-	-	750,412
2011	1,000,867	-	1,000,867	392,488	140,940	-	222,484	-	-	755,894
2012	1,010,876	-	1,010,876	396,412	136,219	-	229,138	-	-	761,769
2013	1,020,984	-	1,020,984	400,377	131,655	-	236,012	-	-	768,044
2014	1,031,196	-	1,031,196	404,379	127,245	-	243,093	-	-	774,716
2015	1,041,509	-	1,041,509	408,422	122,982	-	250,385	-	-	781,790
2016	1,051,924	-	1,051,924	412,507	118,862	-	257,897	-	-	789,265

Present Value of Benefits

\$8,925,372

Present Value of Costs

\$8,784,936

Benefit/Cost Ratio	1.02
--------------------	------

City Gas Company of Florida

Dealer Program

August 1997

The Gas Appliance Dealer / Contractor Program is designed to encourage the replacement of non-gas appliances with energy efficient natural gas appliances through appliance dealers and contractors. The program offers incentives in the form of cash incentives to appliance dealers and contractors for the promotion of the benefits of energy efficient natural gas appliances to residential appliance purchasers.

Furnace	\$30
Water Heater	\$30
Clothes Dryer	\$15
Range	\$15

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios**

Dealer Program

Central Region

Appliance	Incentive	Participants B/C Ratio	RIM B/C Ratio
Furnace	\$30	1.08	2.19
Water Heater	\$30	1.19	2.15
Clothes Dryer	\$15	1.19	2.10
Range	\$15	1.01	2.07

Southern Region

Appliance	Incentive	Participants B/C Ratio	RIM B/C Ratio
Water Heater	\$30	1.09	2.38
Clothes Dryer	\$15	1.08	2.33
Range	\$15	0.89	2.35

All Regions, All Appliances
(weighted, projected actual)

2.11

RATE IMPACT MEASURE

Dealer Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
473

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 88,556	\$ -	\$ 88,556	\$ 38,942	\$ -	\$ 25,084	\$ -	\$ -	\$ -	\$ 64,006
1998	174,844	-	174,844	78,863	-	25,818	-	-	-	104,479
1999	264,888	-	264,888	119,174	-	26,590	-	-	-	145,765
2000	356,716	-	356,716	180,488	-	27,388	-	-	-	187,876
2001	450,353	-	450,353	202,816	-	28,210	-	-	-	230,826
2002	454,857	-	454,857	204,843	-	-	-	-	-	204,843
2003	459,405	-	459,405	206,689	-	-	-	-	-	206,689
2004	463,999	-	463,999	208,756	-	-	-	-	-	208,756
2005	468,639	-	468,639	210,844	-	-	-	-	-	210,844
2006	473,324	-	473,324	212,963	-	-	-	-	-	212,963
2007	478,057	-	478,057	215,082	-	-	-	-	-	215,082
2008	482,837	-	482,837	217,233	-	-	-	-	-	217,233
2009	487,665	-	487,665	219,405	-	-	-	-	-	219,405
2010	492,541	-	492,541	221,800	-	-	-	-	-	221,800
2011	497,466	-	497,466	223,816	-	-	-	-	-	223,816
2012	502,440	-	502,440	226,053	-	-	-	-	-	226,053
2013	507,464	-	507,464	228,312	-	-	-	-	-	228,312
2014	512,538	-	512,538	230,594	-	-	-	-	-	230,594
2015	517,663	-	517,663	232,901	-	-	-	-	-	232,901
2016	522,839	-	522,839	235,230	-	-	-	-	-	235,230

Present Value
of Benefits

\$4,413,259

Present Value
of Costs

\$2,096,050

Benefit/Cost Ratio	2.11
-----------------------	------

DOCKET NO. 970478-GU
EXHIBIT D
PAGE 3 OF 3

City Gas Company of Florida
Gas Appliances in Schools Program

August 1997

The Gas Appliances in Schools Program is designed to promote the replacement of all-electric appliances where cost-efficient in Home Economic Departments in approximately the public schools located in the company's service area. The program includes the installation of energy efficient natural gas ranges. The program provides teaching assistance on energy conservation and on the use, care, and safety of natural gas appliances through a company employed home economist.

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios**

Gas Appliances in Schools Program

Participant B/C Ratio	1.66
RIM B/C Ratio	1.08

RATE IMPACT MEASURE

Gas Appliances in Schools Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants

50

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 8,178	\$ -	\$ 8,178	\$ 4,300	\$ -	\$ 3,750	\$ -	\$ 11,650	\$ -	\$ 19,700
1998	16,519	-	16,519	8,688	-	3,883	-	11,650	-	24,199
1999	25,026	-	25,026	13,159	-	3,978	-	11,650	-	28,787
2000	33,702	-	33,702	17,721	-	4,088	-	11,650	-	33,469
2001	34,039	-	34,039	22,373	-	4,221	-	11,650	-	38,244
2002	34,379	-	34,379	22,597	-	-	-	-	-	22,597
2003	34,723	-	34,723	22,823	-	-	-	-	-	22,823
2004	35,070	-	35,070	23,051	-	-	-	-	-	23,051
2005	35,421	-	35,421	23,282	-	-	-	-	-	23,282
2006	35,775	-	35,775	23,515	-	-	-	-	-	23,515
2007	36,133	-	36,133	23,750	-	-	-	-	-	23,750
2008	36,494	-	36,494	23,988	-	-	-	-	-	23,988
2009	36,859	-	36,859	24,228	-	-	-	-	-	24,228
2010	37,228	-	37,228	24,470	-	-	-	-	-	24,470
2011	37,600	-	37,600	24,715	-	-	-	-	-	24,715
2012	37,976	-	37,976	24,962	-	-	-	-	-	24,962
2013	38,356	-	38,356	25,212	-	-	-	-	-	25,212
2014	38,740	-	38,740	25,464	-	-	-	-	-	25,464
2015	39,127	-	39,127	25,719	-	-	-	-	-	25,719
2016	39,518	-	39,518	25,976	-	-	-	-	-	25,976

Present Value of Benefits **\$347,436**

Present Value of Costs **\$284,328**

Benefit/Cost Ratio	1.22
--------------------	------

City Gas Company of Florida
Residential Propane Conversion Program

August 1997

The Residential Propane Conversion Program is designed to promote the conversion of existing residential propane appliances to be able to utilize efficient natural gas. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the conversion of their existing propane appliances to utilize natural gas. The cash allowances reduce the cost of the natural gas supply lines, upgrading of house piping, venting and the conversion of existing appliances to utilize natural gas.

The incentive is based on the type of appliance(s) being converted.

Furnace	\$ 200
Water Heater	\$ 100
Clothes Dryer	\$ 50
Range	\$ 25

**City Gas Company of Florida
 Energy Conservation Program Analysis
 Summary of Cost-Effectiveness Ratios**

Residential Propane Conversion Program

Central Region

Installed Appliance	Incentive	Participants B/C Ratio	RIM B/C Ratio
Furnace	\$200	1.59	1.19
Water Heater	\$100	1.12	1.17
Clothes Dryer	\$50	1.49	1.29
Range	\$25	1.48	1.45

Southern Region

Installed Appliance	Incentive	Participants B/C Ratio	RIM B/C Ratio
Water Heater	\$100	1.12	1.17
Clothes Dryer	\$50	1.49	1.29
Range Conversion	\$25	1.48	1.45

All Regions, All Appliances
 (weighted, projected actual)

1.15

RATE IMPACT MEASURE

Residential Propane Conversion Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
340

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Protection Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 57,838	\$ 3,600	\$ 61,438	\$ 22,240	\$ 13,483	\$ 51,020	\$ 9,540	\$ 27,500	\$ -	\$ 123,763
1998	116,832	3,600	120,432	44,925	26,609	52,551	19,652	27,500	-	171,238
1999	177,000	3,600	180,600	68,091	39,451	54,127	30,383	27,500	-	219,502
2000	238,360	3,600	241,960	91,855	52,001	55,751	41,898	27,500	-	268,605
2001	300,931	3,600	304,531	115,714	64,298	57,423	53,687	27,500	-	318,592
2002	303,941	-	303,941	116,871	62,115	-	55,297	-	-	234,284
2003	306,980	-	306,980	118,039	60,034	-	56,956	-	-	235,030
2004	310,050	-	310,050	119,219	58,023	-	58,665	-	-	235,908
2005	313,149	-	313,149	120,411	56,079	-	60,425	-	-	236,915
2006	316,281	-	316,281	121,615	54,201	-	62,238	-	-	238,054
2007	319,444	-	319,444	122,830	52,385	-	64,105	-	-	239,319
2008	322,638	-	322,638	124,059	50,630	-	66,028	-	-	240,717
2009	325,865	-	325,865	125,300	48,934	-	68,009	-	-	242,243
2010	329,124	-	329,124	126,554	47,295	-	70,049	-	-	243,897
2011	332,415	-	332,415	127,820	45,710	-	72,151	-	-	245,682
2012	335,740	-	335,740	129,098	44,179	-	74,315	-	-	247,592
2013	339,097	-	339,097	130,399	42,699	-	76,544	-	-	249,632
2014	342,489	-	342,489	131,693	41,269	-	78,841	-	-	251,801
2015	345,914	-	345,914	133,009	39,886	-	81,206	-	-	254,102
2016	349,373	-	349,373	134,340	38,550	-	83,642	-	-	256,532

Present Value
of Benefits

\$2,984,000

Present Value
of Costs

\$2,570,060

Benefit/Cost Ratio	1.15
-----------------------	------

City Gas Company of Florida

Residential Water Heater Retention Program

August 1997

The Residential Water Heater Retention Program is designed to promote the retention of energy efficient natural gas water heaters in existing residential structures. Often residential consumers only consider the initial price when replacing home appliances without consideration to the operating savings provided by energy efficient natural gas appliances. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the purchase and installation of energy efficient natural gas appliances.

Water Heater

\$ 50

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios**

Residential Water Heater Retention Program

Water Heater Retention

Region	Incentive	Participants B/C Ratio	RIM B/C Ratio
Central	\$50	1.10	40.09
South	\$50	1.19	38.21
Weighted projected actual			36.33

RATE IMPACT MEASURE

Residential Water Heater Retention Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
2925

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 673,139	\$ -	\$ 673,139	\$ -	\$ -	\$ 76,060	\$ -	\$ 146,250	\$ -	\$ 222,300
1998	1,359,740	-	1,359,740	-	-	78,332	-	146,250	-	224,582
1999	2,060,006	-	2,060,006	-	-	80,681	-	146,250	-	226,932
2000	2,774,141	-	2,774,141	-	-	83,102	-	146,250	-	229,352
2001	3,502,353	-	3,502,353	-	-	85,595	-	146,250	-	231,845
2002	3,537,376	-	3,537,376	-	-	-	-	-	-	-
2003	3,572,750	-	3,572,750	-	-	-	-	-	-	-
2004	3,608,477	-	3,608,477	-	-	-	-	-	-	-
2005	3,644,562	-	3,644,562	-	-	-	-	-	-	-
2006	3,681,008	-	3,681,008	-	-	-	-	-	-	-
2007	3,717,819	-	3,717,819	-	-	-	-	-	-	-
2008	3,754,997	-	3,754,997	-	-	-	-	-	-	-
2009	3,792,547	-	3,792,547	-	-	-	-	-	-	-
2010	3,830,472	-	3,830,472	-	-	-	-	-	-	-
2011	3,868,777	-	3,868,777	-	-	-	-	-	-	-
2012	3,907,465	-	3,907,465	-	-	-	-	-	-	-
2013	3,946,540	-	3,946,540	-	-	-	-	-	-	-
2014	3,986,006	-	3,986,006	-	-	-	-	-	-	-
2015	4,025,866	-	4,025,866	-	-	-	-	-	-	-
2016	4,066,125	-	4,066,125	-	-	-	-	-	-	-

Present Value of Benefits

\$34,321,616

Present Value of Costs

\$944,669

Benefit/Cost Ratio	36.33
--------------------	-------

City Gas Company of Florida
Residential Cut and Cap Program

August 1997

The Residential Cut and Cap Program is designed to encourage the re-activation of existing residential service lines that are scheduled to be cut of and capped. Often the residential consumers are unaware of the existence of the access to an existing natural gas service line. The program provides for a supplemental incentive over and above the Residential Appliance Replacement Program to encourage residential consumers to install energy efficient natural gas appliances prior to the company expending additional expense to retire the service line. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the purchase and/or lease and the installation of energy efficient natural gas appliances.

Service Re-activation	\$200
-----------------------	-------

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios**

Residential Water Heater Retention Program

Service Re-activation

Region	Incentive	Participants B/C Ratio	RIM B/C Ratio
Central	\$200	1.03	1.51
South	\$200	1.03	1.50
Weighted projected actual			1.44

RATE IMPACT MEASURE

Residential Cut and Cap Alternative Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
270

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 74,987	\$ 9,780	\$ 84,767	\$ 27,270	\$ 3,821	\$ 13,500	\$ 14,310	\$ 54,000	\$ -	\$ 112,701
1998	151,474	9,780	161,254	55,086	7,157	13,905	29,479	54,000	-	159,627
1999	229,484	9,780	239,264	83,455	10,612	14,322	45,544	54,000	-	207,933
2000	309,036	9,780	318,816	112,386	13,987	14,752	62,548	54,000	-	257,673
2001	390,161	9,780	399,941	141,887	17,287	15,194	80,530	54,000	-	308,899
2002	394,063	-	394,063	143,306	18,708	-	82,948	-	-	242,960
2003	398,004	-	398,004	144,739	18,148	-	85,434	-	-	246,322
2004	401,984	-	401,984	146,187	15,607	-	87,997	-	-	249,792
2005	406,004	-	406,004	147,648	15,084	-	90,837	-	-	253,370
2006	410,084	-	410,084	149,124	14,579	-	93,357	-	-	257,060
2007	414,165	-	414,165	150,616	14,091	-	96,137	-	-	260,864
2008	418,308	-	418,308	152,122	13,619	-	99,042	-	-	264,783
2009	422,489	-	422,489	153,643	13,162	-	102,013	-	-	268,818
2010	426,713	-	426,713	155,180	12,721	-	105,074	-	-	272,975
2011	430,980	-	430,980	156,731	12,295	-	108,226	-	-	277,252
2012	435,290	-	435,290	158,298	11,883	-	111,473	-	-	281,654
2013	439,643	-	439,643	159,881	11,485	-	114,817	-	-	286,183
2014	444,040	-	444,040	161,480	11,101	-	118,261	-	-	290,841
2015	448,480	-	448,480	163,094	10,729	-	121,809	-	-	295,631
2016	452,964	-	452,964	164,725	10,369	-	125,463	-	-	300,557

Present Value of Benefits

\$3,864,171

Present Value of Costs

\$2,688,060

Benefit/Cost Ratio	1.44
--------------------	------

City Gas Company of Florida

Commercial/Industrial Conversion Program

August 1997

The Commercial/Industrial Conversion Program is designed to promote the conversion of commercial and industrial inefficient non-gas equipment to energy efficient natural gas. The program provides for a cash incentive of \$75.00 per 100,000 Btu input rating. The incentive is to assist in defraying the incremental first costs associated with the installation of natural gas supply lines, internal piping, venting and equipment.

The program is limited to existing commercial and industrial businesses located in existing structures. The program will be promoted by the company to equipment suppliers, natural gas supplier representatives and commercial and industrial business owners through the company's commercial and industrial sales representatives and approved third party marketing companies. Commissioned sales representatives for approved third party marketing companies may be eligible for a commission for new customer conversions. The company will additionally promote the program through appropriate use of media advertising and trade shows.

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios
Commercial/Industrial Conversion Program**

Installed Equipment	Incentive Amount	RIM B/C Ratio
200k Btu/hr	\$150	1.26
400k Btu/hr	\$300	1.27
600k Btu/hr	\$450	1.28

All regions, all equipment
(Weighted, projected actual) 1.26

RATE IMPACT MEASURE

Commercial/Industrial Conversion Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
175

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 1,212,421	\$ 7,875	\$ 1,220,296	\$ 842,190	\$ 95,111	\$ 147,250	\$ 24,850	\$ 38,250	\$ -	\$ 1,147,851
1998	2,449,090	7,875	2,456,965	1,701,224	187,968	151,868	51,191	38,250	-	2,130,319
1999	3,710,372	7,875	3,718,247	2,577,353	278,713	156,218	79,090	38,250	-	3,129,623
2000	4,998,634	7,875	5,004,509	3,470,837	387,369	160,904	108,817	38,250	-	4,145,978
2001	6,308,250	7,875	6,316,125	4,381,930	454,036	165,731	139,844	38,250	-	5,179,793
2002	6,371,333	-	6,371,333	4,425,749	438,826	-	144,040	-	-	5,008,615
2003	6,435,047	-	6,435,047	4,470,007	424,125	-	148,361	-	-	5,042,492
2004	6,499,397	-	6,499,397	4,514,707	409,917	-	152,812	-	-	5,077,436
2005	6,564,391	-	6,564,391	4,559,855	396,185	-	157,368	-	-	5,113,436
2006	6,630,034	-	6,630,034	4,605,455	382,912	-	162,118	-	-	5,150,486
2007	6,696,334	-	6,696,334	4,651,509	370,085	-	166,982	-	-	5,188,576
2008	6,763,297	-	6,763,297	4,698,023	357,667	-	171,991	-	-	5,227,700
2009	6,830,930	-	6,830,930	4,745,004	345,704	-	177,151	-	-	5,267,858
2010	6,899,239	-	6,899,239	4,792,454	334,123	-	182,465	-	-	5,309,042
2011	6,968,231	-	6,968,231	4,840,380	322,930	-	187,939	-	-	5,351,250
2012	7,037,914	-	7,037,914	4,888,784	312,112	-	193,577	-	-	5,394,474
2013	7,108,293	-	7,108,293	4,937,672	301,656	-	199,365	-	-	5,438,712
2014	7,179,378	-	7,179,378	4,987,049	291,551	-	205,366	-	-	5,483,966
2015	7,251,170	-	7,251,170	5,036,920	281,784	-	211,527	-	-	5,530,231
2016	7,323,681	-	7,323,681	5,087,268	272,344	-	217,873	-	-	5,577,505

Present Value of Benefits

\$51,851,060

Present Value of Costs

\$48,895,393

Benefit/Cost Ratio	1.26
--------------------	------

DOCKET NO. 97047B-GU
EXHIBIT I
PAGE 3 OF 3

City Gas Company of Florida

Commercial/Industrial Alternative Technology Incentive Program

August 1997

The Commercial/Industrial Alternative Technology Incentive (ATI) Program is designed to encourage commercial and industrial business owners to install alternate technologies that utilize natural gas that are not covered by one of the other City Gas Energy Conservation Programs, but which cost-effectively reduce the total utility expense of the business.

Natural gas alternative technologies can greatly reduce the annual energy expenses for a business, but can carry a significant first cost differential as compared to existing technology powered by other fuels. Often the annual operational savings achieved through greater energy efficiencies are not enough of an incentive for business owners to choose natural gas technologies due to a payback duration greater than three years. The intent of this program is to reduce the simple payback period to three years subject to a maximum incentive of three times the projected incremental annualized margin.

City Gas plans to make commercial and industrial customers aware of the program through direct contact by City Gas marketing representatives with commercial and industrial businesses, architects, specifying engineers, manufacturer representatives and the sales representatives of natural gas suppliers. The program will additionally be promoted through appropriate media advertising and/or trade shows.

Program Description

The program is available to all commercial and industrial businesses located in areas of Florida currently served, or potentially served by City Gas. In order for a project to qualify under this program, it must not qualify for another City Gas program and must provide a positive life cycle savings to the customer. Both retrofit and new construction projects are eligible. In order to qualify for the incentive, the Rate Impact Measure (RIM) Test benefit-to-cost ratio of a project, including incentive, must be at least 1.01. Additionally, the project must pass the Participants Test.

Incentives are based on the cost-effectiveness under a life-cycle analysis utilizing a computerized energy consumption simulation model such as the Department of Energy's DOE-2.1E model, the Trane Corporation's Trace model or other similar such model approved by City Gas. The incentive amount is based on the three year estimated annual energy savings for the project and the first cost differential. The incentive amount shall not cause the customer's payback to be less than three years and shall not exceed three times the estimated incremental annual

margin to City Gas. The number and timing of payments toward the total incentive amount will be solely determined by City Gas for each project on an individual basis.

Any customer receiving an incentive under this program must remain served by City Gas for the behind the city gate portion of their natural gas transportation requirements for at least five years from the date of the payment of the incentive, or the customer shall refund the incentive in full to City Gas. City Gas will be solely responsible for determining the eligibility of any project, performing the RIM and Participants cost-effectiveness tests, determining the appropriateness of life-cycle analysis model inputs and assumptions, and the amount and timing of the incentive payments.

The program is not available for temporary installations.

Projected Participation

City Gas has incorporated into the Alternative Technologies Incentive Program the projected possible energy conservation contributions of gas cooling technologies. City Gas anticipates measures other than gas cooling technologies in the Program, but due to the enormous variability of equipment sizes, possible installation configurations and operating scenarios, City Gas cannot meaningfully quantify the projected contributions from these measures at this time.

Cost-Effectiveness Analysis

City Gas has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.009 to determine the cost-effectiveness of this program. The analysis for possible gas cooling measures are shown in attachment A. For other measures, City Gas cannot predict at this time the energy cost reductions that will result, so cost-effectiveness evaluations will be performed at the time such measures are proposed for participation in the Program.

Measures with which City Gas or one of its affiliated companies has significant experience and/or confidence as to the performance characteristics will require, at a minimum, an engineering analysis utilizing an appropriate computer simulation model. City Gas, at its determination, may also require a feasibility study performed by an independent, registered professional engineer, and/or field monitoring of the project.

Measures with which City Gas or one of its affiliated companies has no experience or confidence with the performance characteristics will require field monitoring/measurement of the project's performance.

The costs for all monitoring equipment and activities will be recognized in the cost-effectiveness determination for each project.

**City Gas Company of Florida
Energy Conservation Program Analysis
Summary of Cost-Effectiveness Ratios**

Commercial and Industrial Alternative Technology Incentive

Installed Measure	First Cost Differential	Est. 3yr energy savings	Amount to provide 3yr payback	Est. 3yr company margin	Max. Incentive Amount	Part. B/C Ratio	RIM B/C Ratio
DF Absorption	\$ 16,700	\$ 12,013	\$ 4,687	\$ 4,942	\$ 4,687	1.44	1.61
Hybrid Desiccant	516,800	424,811	91,989	75,374	75,400	1.71	2.99
Chiller 2300	816,500	798,910	19,590	188,665	19,590	1.47	14.03
Chiller 250	83,000	37,884	45,116	30,640	30,600	1.13	3.32
Chiller 1000	271,800	194,419	77,181	40,852	40,900	1.60	2.40

All regions, all equipment
(weighted, projected actual)

2.40

RATE IMPACT MEASURE

Commercial/Industrial Alternative Technology Incentive Program
City Gas Company of Florida
August 1997

All regions
Weighted for projected participation levels

Annual Total Number of Participants
18

Year	Benefits			Costs						
	Increased Revenue	Other Benefits	Total	Increased Gas Supply Costs	Main, Svc & Meter Carrying Costs	Sales & Promotion Costs	Admin & Incremental O&M Costs	Incentive Payment	Other Costs	Total
1997	\$ 101,746	\$ 810	\$ 102,556	\$ -	\$ 9,888	\$ 17,550	\$ 7,155	\$ 305,244	\$ -	\$ 339,817
1998	205,526	810	206,336	-	19,504	18,077	14,739	305,244	-	357,564
1999	311,372	810	312,182	-	28,916	18,619	22,772	305,244	-	375,550
2000	419,314	810	420,124	-	38,114	19,177	31,274	305,244	-	393,809
2001	529,384	810	530,194	-	47,108	19,753	40,265	305,244	-	412,367
2002	534,677	-	534,677	-	45,528	-	41,473	-	-	87,000
2003	540,024	-	540,024	-	44,003	-	42,717	-	-	86,720
2004	545,424	-	545,424	-	42,528	-	43,000	-	-	86,528
2005	550,877	-	550,877	-	41,104	-	45,319	-	-	86,422
2006	556,386	-	556,386	-	39,727	-	46,678	-	-	86,405
2007	561,949	-	561,949	-	38,396	-	48,079	-	-	86,475
2008	567,568	-	567,568	-	37,110	-	49,521	-	-	86,631
2009	573,244	-	573,244	-	35,805	-	51,007	-	-	86,873
2010	578,976	-	578,976	-	34,665	-	52,537	-	-	87,201
2011	584,766	-	584,766	-	33,504	-	54,113	-	-	87,617
2012	590,614	-	590,614	-	32,381	-	55,736	-	-	88,117
2013	596,520	-	596,520	-	31,297	-	57,408	-	-	88,704
2014	602,484	-	602,484	-	30,248	-	59,131	-	-	89,378
2015	608,509	-	608,509	-	29,235	-	60,905	-	-	90,140
2016	614,595	-	614,595	-	28,255	-	62,732	-	-	90,987

Present Value of Benefits

\$5,191,103

Present Value of Costs

\$2,163,026

Benefit/Cost Ratio	2.40
--------------------	------