

### West Florida Natural Gas Co.

"energy for all seasons"

Caller Box 1460 301 Mapic Avenue Panama City, FL 32402 (904) 872-6100

J.E. McIntyre President



May 13, 1991

Mr. Steve Tribble, Director Division of Records and Reporting Florida Public Service Commission 101 E. Gaines Street Tallahassee, FL 32399-0850

Re: Conservation Plan

Dear Mr. Tribble:

Enclosed are 16 copies of West Florida Natural Gas Company's proposed Energy Conservation and Promotional Program, which Troy Rendell requested I send to you.

These copies include all the revisions that were made to the original filing.

Sincerely,

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## West Florida Natural Gas "energy for all seasons"

# ENERGY CONSERVATION AND PROMOTIONAL PROGRAM

(Proposed January 1991)

DOCUMENT NUMBER PATE

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1. SC-RECURDS/REPORTING

#### **ENERGY CONSERVATION AND PROMOTIONAL PROGRAMS**

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#### INTRODUCTION

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The Florida Energy Efficiency and Conservation Act (FEECA) [Sections 366.80 - 366.82, Florida Statutes] requires the Florida Public Service Commission (the Commission) to adopt goals for increasing the efficiency of energy consumption including goals designed to increase the conservation of expensive resources such as petroleum tuels and to reduce and control the growth rates of electric consumption. By its Order No. 22176, the Commission adopted the goals expressed in Rule 25-17.001.

Guided by this Order, West Florida Natural Gas Company (WFNG) votertarily submits these plans and programs to assist the State of Florida in achieving greater energy conservation and efficiency. Natural gas, as well as electric, utilities should promote the use of natural gas to conserve expensive materials and to promote the most efficient use of the State's energy resources. Such programs, whether gas or electric, should optimize the use of existing facilities within the State of Florida to avoid the cost of building new facilities prematurely. We also have a responsibility to minimize rate increases and the total cost paid for energy by Florida's energy ratepayers.

The programs proposed in this submittal are designed to:

- (1) Reduce electric kilowatt hour (KWH) consumption and kilowatt demand (KWD), including periods of peak electric use, in order to decrease the need for building additional electric generating capacity.
- (2) Increase the conservation of petroleum fuels by promoting the direct use of natural gas as a substitute for oil and oil-derived electric energy when this substitution is

cost effective.

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(3) Promote and increase the efficient use of natural gas on a year-round basis.

The key to continued conservation efforts for Florida's electric and natural gas utilities requires innovative approaches to increase efficiency while maintaining existing effective residential conservation efforts. New programs aimed at commercial energy uses will be of equal if not greater significance in reaching conservation goals. For these reasons, this conservation program document includes new programs for gas fired space conditioning and commercial electric resistance appliance replacement.

#### PROGRAM BACKGROUND AND COST EFFECTIVENESS ANALYSIS ASSUMPTIONS

A direct benefit to gas ratepeyers of \$22,537,141 (present value), less a program cost of \$6,579,999 (present value) to be peld by the West Florida Natural Gas Company ratepayers for a net direct benefit to the ratepayers of \$15,957,142 (present value) is shown in the section headed "Summary of Program Costs/Benefits to Electric and Gas Ratepayers." Electric ratepayers receive a \$72,029,695 (present value) net benefit, to comprise a total net benefit to the State, projected by West Florida Natural Gas Company at a net present value of \$87,986,837 in benefits over twenty (20) years.

The assumptions and basic data utilized in the preparation of the benefit/cost analysis contained in this document are as follows:

The average consumption data for gas appliances is based on information taken from customer historical use patterns in Northwest and Central Florida and are as follows:

Residential Energy Efficient	Water Heaters	300 Therms/Yr
	Range	110 Therms/Yr
	Dryer	120 Therms/Yr
	Furnace	380 Therms/Yr
Commercial Energy Efficient	Water Heaters	2,300 Therms/Yr
8	Range	630 Therms/Yr
	Fryer	880 Therms/Yr
	Dryer	660 Therms/Yr

The average consumption data for residential/electric appliances was based on ASHRAE's "Degree Days Method" and agree with West Florida Natural Gas Company estimations, with Gulf Power Company publications concerning estimated usage and with PSC staff in meetings held in conjunction with the initial development of the original 1985-1989 conservation programs.

#### They are as follows:

Residential	Water Heater	4,500 KW/Yr	.91 KWD
	Range	1,650 KW/Yr	nil
, T	Dryer	1,800 KW/Yr	nil
3600	Strip Heat	5,700 KW/Yr	7.5 KWD

Consumption data for commercial eluctric appliances is based on conversion of the equivalent gas appliance consumptions and is as follows:

Commen	cial Water Heater	56,950 KW/Yr	10.8 KWD
4	Range	18,570 KW/Yr	8.7 KWD
	Fryer	21,470 KW/Yr	7.2 KWD
**	Dryer	19,340 KW/Yr	7.0 KWD

In all instances, KW demand reduction refers to a reduction in electric generating capacity.

The assumptions and data used in the cost effectiveness analysis were obtained from the following sources:

Frugram personnel cost - WFNG estimate of manpower needed to carry out the proposed programs.

Advertising cost - West Florida Natural Gas budget estimates of an amount of advertising reasonably needed to promote the programs.

Fuel cost - WFNG 1991 cost of natural gas.

ICWH produced from a ton of coal - 2,078 KWH/ton, information previously provided by the Public Service Commission office.

in People's Gas System, inc. approved conservation plan, Order No. 23462.

Percentage breakout of energy production by fuel type - The conservation programs are designed to reduce the demand on coal and oil use in electric production. The split is 80.4% coal and 19.6% oil of the fuel to be conserved. This information was provided in People's Gas System, inc. approved conservation plan, Order No. 23462.

Power plant construction cost - \$721/KW, information from PSC Order 22341.

Escalation rate on cost - 5.4%, information from PSC Order 22341.

Discount rate on cost - 10.45%, information from PSC Order 22341.

Price per ton of coal - provided by Jacksonville Electric Authority.

Price per barrel of oil - from Platt's Oil Gram.

Assumptions related to individual programs are based on WFNG historical estimates of program participation.

The cost/benefit evaluations for West Florida Natural Gas ratepayers make the following assumptions:

- 1. The number of appliances which are in service from 2000 through 2011 is constant. In spite of a life expectancy of approximately 10 years for any given appliance, it is reasonably assumed that once an appliance is put into service it will be replaced at the end of its useful life with another similar appliance.
- Average Annual Therm Consumption and Average Allowance per Customer were determined by weighted averages based upon historical data on the numbers and types of exclances for which allowances have previously been paid.
- Installation Distribution by type of service (i.e., new on main, added load, reactivate
  or heat only) is based on West Florids Natural Gas Company's actual historical
  data where available and future projections.
- 4. While natural gas service lines are normally capitalized, for the purpose of this conservation plan, the costs were assumed to be a direct expense to the program. While it can be assumed there will be an incremental increase in Operation and Maintenance costs with the addition of new or incremental loads, the impact of these costs was determined to be insignificant in comparison to the total benefits derived from the proposed programs.

All programs with the exception of the "Natural Gas Water Heater Retention Program" and "Gas Appliance Energy Savings Payback Program" may or may not require a new service line and meter set depending on whether the particular customer is having his first gas appliance(s) installed. Construction of a service line and meter set in any case would be done in accordance with WFNG's current tariff and would not be dependent upon participation in the conservation program.

The average cost of a service line and meter set installation is as follows:

	Residential	Commercial
Service Line	\$255	\$315
Regulator/Meter Set	120	195
Total	\$375	\$510

5. Consistent with the currently approved conservation programs cost effectiveness analysis, the estimated cost to the electric companies of the oil and coal used to generate power were used as a basis for deferred cost. Following the same logic, the cost of gas to the gas company was used as the off-setting factor for these deferred costs.

#### EXECUTIVE SUMMARY

West Florida Netural Gas Company operated three successful Energy Conservation Programs from 1985 through 1990. These programs were all directed toward increasing energy efficiency within the residential segment of our market. Customers in Paname City and Ocala benefitted from these programs through increased assertness of energy conservation which we promoted through various local media. All programs were well accepted by the population as was proven by the increased numbers of residential customers added in each of our marketing areas.

The rebates which were paid to customers who participated in any of the programs, greatly sesisted them in defraying initial installation costs. These incentives were an important factor in influencing each customer's decision to use energy efficient natural gas appliances.

West Florida Natural Gas Company is proposing to continue its three original programs and to add three new conservation programs. Two of these, the Commercial Electric Resistance Appliance Program and the Gas Space Conditioning Program target the high priority commercial customers. These programs, along with a new Gas Water Hester Load Retention Program and the three original programs, are designed to continue West Florida Natural Gas Company's commitment to energy conservation.

#### PROGRAM SUMMARY

### Residential Electric Resistance Appliance & Oil Heating Replacement Program

Program is designed to reduce the escalating rates of electric and oil consumption and to optimize the use of natural gas facilities. This program will promote the replacement of electric water heaters, space and central heaters, ranges, and dryers. It will also promote the replacement of oil heating with energy efficient natural gas heating.

#### II. Residential Home Builder Program

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The Residential Home Builders Program is designed to increase the use of efficient natural gas in private residences by encouraging home builders to install energy efficient natural gas appliances in new residences in lieu of electrical appliances. This substitution will conserve energy, as well as lower the ratepayer's total annual energy mate.

#### III. Gas Appliance Energy Savings Payback Program

The Gas Appliance Energy Savings Payback Program is designed to promote the replacement of standard gas appliances with energy efficient natural gas appliances and to ensure that new installations comply with the energy efficiency standards set forth in the Florida Energy Code. The program focuses on water heaters, central furnaces, ranges, and dryers.

#### IV. Gas Water Heater Load Retention Program

The Gas Water Heeter Load Retention Program is designed to encourage the continued use of natural gas water heaters, effectively reducing conversions from natural gas to electricity. This program promotes the efficiencies of natural gas and supports the conservation of petroleum fuels, KWH consumption and KW demand.

#### V. Gas Space Conditioning Allowance Program

The Gas Space Conditioning Allowance Program is designed to convert customers from electric space conditioning equipment to energy efficient natural gas equipment and to initially install gas space conditioning equipment instead of electric equipment. This program will reduce summer as well as winter peak demand and contribute to the conservation of KWH consumption.

#### VI. Commercial Electric Resistance Appliance Replacement Program

The Commercial Electric Resistance Appliance Replacement Program is designed to promote the use of natural gas to high priority customers. This program is aimed at the conversion of non-residential customers from electric resistance appliances to energy efficient natural gas appliances.

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West Florida Natural Gas Company Evergy Conservation and Promotional Programs

Processo Benefits	Benefit To Electric Relacement	Dense To Gas	Program Cost Ges Usary Rescontin	No. of London	Approx Yes/No
Resistance Appliance and Oil Heating Replacement	\$17,418,844	\$ 8,484,967	82,826,226	\$5,656,729	
Residential Home Builder	921,168,366	\$ 4,580,377	\$1,720,033	\$2,689,344	
Gas Applance Energy Savings Payback	\$10,285,786	\$ 1,345,782	\$ 179,627	\$1,106,836	
Ges Water Heater Load Retention	\$ 1,996,730	\$ 1,731,860	8 326,280	\$1,406,609	
Gas Space Conditioning Allowance	129,629,827	\$ 2,210,306	* 662,334	\$1,548,061	
Commercial Electric Resistance Appliance Replacement	\$16,333,152	8 4,174,761	\$ 806,197	495'906'554	
TOTAL PROGRAM BENEFIT (COST)	\$72,029,696	141,141	\$6,579,990	\$15,857,142	

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#### West Floride Natural Gas Company Benefit/Cost Ratios All Programs

Electric Retepayers		Gas R	atepayers	
Program	Ratio (To 1)	Payback (in Yrs)	Ratio (To 1)	Payback (In Yrs)
Residential Electric Resistance Appliance and Oil Heating Replacement Program	7.17	.14	3.01	.34
Residential Home Builders Program	13.31	.06	2.67	.37
Gas Appliance Energy Savings Payback Program	57.1	.02	7.48	.13
Gas Water Hester Load Retention Program	7.14	.14	5.32	.19
Gas Space Conditioning Program	8.29	.12	3.34	.30
Commercial Electric Resistance Appliance Replacement Program	19.86	.06	4.82	.21

## RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE & OIL HEATING REPLACEMENT PROGRAM

#### I. Program Description

The Residential Electric Resistance Appliance and Oil Heating Replacement Program is designed to reduce the escalating rates of electric and oil consumption and to optimize the use of natural gas facilities. This program targets the reactivation of existing service lines and the conversion of seasonal gas heating customers to year round usage, as well as the conversion of new customers from electric and oil appliances to natural gas appliances. This program will promote the replacement of electric water heaters, space and central heaters, ranges, and dryers where it is most effective to do so. This program will also promote the replacement of oil heating with energy efficient natural gas space and central heating.

#### II. Program Participation Standards

Any current or potential residential customer using an electric water heater, electric central heater, range, clothes dryer, or space heater, or using an oil central heater or space heater is eligible to participate in the program. The customer must simply replace an electric or oil appliance with a natural gas appliance. The participating customer will receive a monetary incentive to help defray the additional costs associated with the gas piping and appliance venting required for conversion from electric or oil energy to natural

gas.

Energy efficient natural gas appliances can be defined as follows:

- Residential energy efficient water heaters are those heaters complying with the standards as set forth in ASHRAE 90.
- Energy efficient residential furnaces are those that meet or exceed Section 9 of the Florids Energy Code for Building Construction.
- All other gas appliances considered to be energy efficient must meet or exceed the current Florida Energy Code for Building Construction.

The eligible appliances and the corresponding allowances under the program are as follows:

Year	Water Heater	Control Heat	Range	Dryer	Spec <50.0008tu	• Heat >50,000Btu
1990	180	400	60	60	0	0
1991	250	500	150	150	150	300
1992	250	500	150	150	150	300
1993	250	500	150	150	150	300
1994	250	500	150	150	150	300
1995	250	500	150	150	150	300

#### III. Benefits and Costs

The following affects in decreasing winter peak KWD and annual KWH consumptions are expected with the replacement of electric resistance appliances and

#### oil heating by energy efficient natural gas appliances:

#### Electric

Accilence	KWD Disclacement	Annual KWH Consumption
each water heater	.91	4,500
each central heater	7.5	5,700
each range 1666 46 11 .	. ••	1,650
each clothes dryer	•	1,800
each space haster	5.0	3,400

Demand and annual consumption information is based on ASHRAE's "Degree Day Method" and agree with West Florida Natural Gas Company estimates and with previously published usage data from Gulf Power Company. It is anticipated that an individual customer who switches from electricity or oil to natural gas can expect his annual energy savings to be the sum of the values for the appliances listed above which he replaces. Company-wide projections for the program and the accumulated demand and energy savings are shown on Table A-1.

The number of customers who have participated in this program in the past and projections for anticipated new participants are shown on Table A-2.

Based on historical participation, as well as on projections of future participation, first year costs are anticipated as follows:

Per customer	\$6.46/52,260	Total Customers
Administrative	\$62,900.00	
Incentive	\$274,815.00	

#### IV. Cost Effectiveness Methodology

Based on the cost effectiveness methodology used in currently approved conservation programs, and using the assumptions listed, a benefit/cost ratio of 7.17 to 1 with a psyback period of .14 years will be achieved for the State of Florida. The ratespayers of West Florida Natural Gas Company will receive a benefit/cost ratio of 3.01 to 1 with a psyback period of .34 years. The cost effectiveness calculations follow Table A.9

#### V. Program Monitoring and Evaluation

Appliance and Oil Heating Replacement Program is monitored monthly at both branches of the company. The Panama City office also submits a semi-annual report to the Florida Public Service Commission for both divisions. Feedback received from both branches is constantly evaluated and any necessary revisions will be proposed to the program based upon these evaluations. Allowances paid to eligible participants under the program guidelines are based upon documentation and information necessary for Florida Public Service Commission audit purposes.

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#### ATTACHMENT A - 1

## RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

#### PROJECTED FORECASTED CONSERVATION

YEAR	AVOIDED	ANNUAL KWH REDUCTION
1991	2,512	3,805,055
1992	2,663	4,033,358
1993	2,822	4,275,360
1994	2,992	4,531,881
1995	3,171	4,803,794
1996	3,362	5,092,022
1997	The state of the s	5,397,543
1998	3,777	5,721,396
1999	4,004	6,064,680
2000	4,244	6,428,560
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TOTAL	33,110	50,153,650

ATTACHMENT A-2

## RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

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YEAR -	PARTICIPANTS	OF ACTUAL APPLIANCES	TO ELIGIBLE
1985	200,000	1,062	0.53%
1986	200,000	1,151	0.58%
1987	200,000	991	0.50%
1988	200,000	1,144	0.57%
1989	200,000	616	0.31
1990	200,000	400	0.20%
1991	200,000	985	0.49%
1992 Ear	200,000	1,044	0.52%
1993	200,000	1,107	0.55%
1994	200,000	1,173	0.59
1995	200,000	1,244	0.62
1996	200,000	1,318	0.66%
1997	200,000	1,397	0.70%
1998	200,000	1,481	0.74%
1999	200,000	1,570	0.78%
2000	200,000	1,664	0.83%

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#### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL REPLACEMENT PROGRAM

#### Results from Allowance Program

#### Estimated Gas Company Expenditures

2 74	1. Personnel Costs	\$334,792
31	2. Advertising Costs	\$494,280
ŧ.	3. Installation Allowances	\$3,622,280
, vi	4. Total Costs	\$4,451,352
h	5. Present Value of Total	\$2,826,228
Reduction		
	6. KW	33,110
	7. MWH	551,694
Estimated	Electric Company Benefits	
:	8. Construction Savings	\$31,362,319
	9. Fuel Purchase Savings	
	A. OI	\$2,590,403
2	B. Coal	\$528,900
	10. Total Savings	\$34,481,622
Net Prese	ent Value of Total Program	
	11. Not Present Value	\$20,245,072
Net Bene	fits from Cumulative Totals	
	Col 11 - Col 5	\$17,418,844

#### Benefit/Cost Ratio from Cumulative Totals

Cal 11 / Cal 5

7.17 TO 1

Discount Payback

Cal 5 / Cal 11 (YEARS)

0.14 YEARS

#### LIST OF ASSUMPTIONS

#### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

	1991 Program Personnel Costs.     Escalation Rate - Personnel Costs.	25,400 6.0%	
	2. 1991 Advertising Costs.	37,500	
	Escalation Rate - Advertising Costs.	6.0%	/YH
	3. Fuel Cost of Natural Gas 1991		/THERM
,	Escalation Rate - Fuel Cost Natural Gas	3.0%	MR
	4. KWH Produced from Ton of Coal	2076	KWH
	5. KWH Produced from Berrel #6 Oil	613	KWH
	6. Percentage Breakdown of Displaced Fuel	19.6%	OIL
	From Reduced KWH Generation	80.4%	COAL
	7. 1991 Construction Cost per KW. (Pulverized Cost)	\$721	/KW
	Escalation Rate of Construction.	5.4%	/YR
	8. KW is eliminated at the time of its deferral.		
	9. Average Allowance for Gas Appliance Replacing Electric	\$279	/APP
	10. Demand Displacement - Water Heating	.91	KW
	- Central Heating	7.50	KW
	- Space Heating	5.00	KW
	11. Average Natural Gas Annual Therm Consumption Per Installed Applaince	261	THERM
	12. Period of Appliance Use.	10	YRS
	13. Price of Oil per Barrel	\$20.50	
	Escalation Rate	4.0%	MR

14. Price of Coal per Ton Escalation Rate \$42.00 /TON 3.0% /YR

15. Discount Rate or Rate of Time Preference

10.45% /YR

 Gas Appliances Installed during Program 1st Year Escalation Rate 985 APPL. 6.0% /YR

*	Number	Allowence	KWH Displace	KW d Avoided	Gas Therms
Water Heats	e 370	\$250	0.91	4500	300
Central Heat	240	500	7.50	5700	380
Range	. 150	150	NIL	1650	110
Diyer	150	150	NIL	1800	120
Space Heat:	Stand of the				
<50,0	)008tu 37	150	5.00	3400	270
>50,0	0008tu 38	300	5.00	3400	270
r.					

Total 985

Weighted Average Allowance \$279

Weighted Average KW 2.55

Weighted Average KWH 3863

Weighted Average Therms Gas 261

#### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

TABLE - 1 - PROGRAM COSTS

Tarabasa Tar	PERSONNEL	ADVERTISING	INSTALLATION	TOTAL
TEAR	COSTS	COSTS	ALLOWANCES	COSTS
1991	25,400	37,500	274,815	337,715
1992	26,924	39,750	291,304	357,978
1993	28,539	42,135	308,782	379,457
1994	30,252	44,663	327,309	402,224
1996	32,067	47,343	346,948	426,357
1996	33,991	50,183	367,764	451,939
1997	36,030	53,194	389,830	479,055
1998		56,386	413,220	507,798
1999	40,484	59,769	438,013	538,266
2000	42,913	63,355	464,294	570,562
	334,792	494,280	3,622,280	4,451,352

#### SUMMARY SHEET ITEMS 1, 2, 3, AND 4.

TABLE - 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	TOTAL	DISCOUNT	PRESENT
1991	337,715	1.00000	337,715
1992	357,978	0.90539	324,110
1993	379,457	0.81973	311,052
1994	402,224	0.74217	298,519
1995	426,357	0.67195	286,491
1996	451,939	0.60838	274,951
1997	479,055	0.55081	263,868
1998	507,798	0.49870	253,239
1999	538,266	0.45152	243,038
2000	570,562	0.40880	233,246
TOTAL			2,826,228

SUMMARY SHEET ITEM 5

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TABLE - 3 - ESTIMATED NUMBER OF NATURAL GAS APPLIANCES INSTALLED

YEAR "	APPLIANCES INSTALLED	DISPLACED	AVOIDED
1991 1992	985 1,044	2,512 2,663	3,805,055 4,033,358
1991	1,107	2,822 2,992	4,275,360 4,531,881
1995	1,244	3,171 3,362	4,803,794 5,092,022
1997	1,397 1,481	3,563 3,777	5,397,543 5,721,396
1999	1,570	4,004 4,244	6,064,680 6,428,560
-	12,983	33,110	50,153,650

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#### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

TABLE - 4 - KW AVOIDANCE AND KWH REDUCTIONS FROM PROGRAM

YEAR	100	KWH	MWH CUMULATIVE
1991	2,512	3,805,055	3,805
1992	2,663	4,033,358	7,838
1993	2,822	4,275,360	12,114
1994	2,992	4,531,881	16,646
1995	3,171	4,803,794	21,449
1996	3,362	5,092,022	26,541
1997	3,563	5,397,543	31,939
1998	3,777	5,721,396	37,660
1999	4,004	6,064,680	43,725
2000	4,244	6,428,560	50,154
2001			50,154
2002			46,349
2003			42,316
2004			38,040
2005			33,508
2006			28,705
2007			23,613
2008			18,215
2009			12,494
2010			6,429
*			
185			551,694

#### SUMMARY SHEET ITEM 7

TABLE - 5 - TOTAL CONSTRUCTION COSTS DEFERRED

YEAR	KW DEFERRED	COSTS PER	TOTAL CONSTRUCTION COSTS DEFERRED
1991	2,512	721	1,811,152
1992	2,663	760	2,023,491
1993	2,822	801	2,260,726
1994	2,992	844	2,525,773
1995	3,171	890	2,821,895
1996	3,362	938	3,152,734
1997	3,563	989	3,522,360
1998	3,777	1,042	3,935,322
1999	4,004	1,098	4,396,699
2000	4,244	1,157	4,912,168
*			31,362,319
	1		

#### RIDGED SHEET TITEL &

### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

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-	- P				
	NAME OF TAXABLE PARTY.	19.68	Colores Com		AVOIDED
YEAR -	REDUCED	OIL	KW/BBL	\$/BBL	COSTS
	50 St. 18				
1991	3,805,055	745,791	613	20.50	24,941
1992	7,830,413	1,536,329	613	21.32	53,433
1993	12,113,773	2,374,300	613	22.17	85,881
1994	16,645,654	3,262,540	613	23.06	122,730
1995	21,449,448	4,204,092	613	23.98	164,475
1996	26,541,470	5,202,128	613	24.94	211,661
1997	31,939,013	6,260,047	613	25.94	264,893
1998	37,660,409	7,381,440	613	26.98	324,839
1999	43,725,089	8,570,117	613	28.06	392,235
2000	50, 153, 649	9,830,115	613	29.18	467,899
2001	50, 153, 649	9,830,115	613	30.35	486,615
2002	46,348,594	9,084,324	613	31.56	467,684
2003	42,315,236	8,293,786	613	32.82	444,065
2004	38,039,876	7,455,816	613	34.13	415,166
2005	33,507,995	6,567,567	613	35.50	380,334
2006	28,704,201	5,626,023	613	35.92	338,840
2007	23,612,179	4,627,987	613	38.40	289,880
2008	18,214,636	3,570,069	613	39.93	232,561
2009	12,493,240	2,448,675	613	41.53	165,892
2010	6,428,560	1,259,998	613	43.19	88,776
TOTAL	h				5,422,800

#### FUEL SAVINGS - COAL

YEAR	REDUCED	80.48 COAL	KW/TON	\$/TON	AVOIDED
1991	3,805,055	3,059,264	2,076	42.00	61,893
1992	7,838,413	6,302,084	2,076	43.26	131,324
1993	12,113,773	9,739,473	2,076	44.56	209,041
1994	16,645,654	13,383,106	2,076	45.89	295,863
1995	21,449,448	17,245,356	2,076	47.27	392,684
1996	26,541,470	21,339,342	2,076	48.69	500,483
1997	31,939,013	25,678,966	2,076	50.15	620,330
1998	37,660,409	30,278,969	2,076	51.65	753,396
1999	43,725,089	35,154,972	2,076	53.20	900,962
2000	50, 153, 649	40,323,534	2,076	54.80	1,064,426
2001	50, 153, 649	40,323,534	2,076	56.44	1,096,359
2002	46,348,594	37,264,270	2,076	58.14	1,043,576
2003	42,315,236	34,021,450	2,076	59.88	981,344
2004	38,039,876	30,584,060	2,076	61.68	908,659
2005	33,507,995	26,940,428	2,076	63.53	824,418
2006	28,704,201	23,078,178	2,076	65.43	727,414
2007	23,612,179	18,984,192	2,076	67.40	616,325
2008	18,214,636	14,644,567	2,076	69.42	489,701
2009	12,493,240	10,044,565	2,076	71.50	345,958
2010	6,428,560	5,168,562	2,076	73.65	183,358
					10 142 514

12,147,514

#### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

#### AMMUAL FUEL COMBUNPTION - NATURAL GAS

YEAR	THERES CONSUMED	THERMS CUMULATIVE	\$/THERM	TOTAL COSTS
1991	257,085	257,085	0.2864	73,629
1992	272,510	529,595	0.2950	156,226
1993	288,861	818,456	0.3038	248,681
1994	306,192	1,124,648	0.3130	351,967
1995	324,564	1,449,212	0.3223	467,147
1996	344,038	1,793,250	0.3320	595,388
1997	364,680	2,157,930	0.3420	737,961
1998	306,561	2,544,491	0.3522	896,261
1999	409,754	2,954,245	0.3628	1,071,809
2000	434,340	3,388,585	0.3737	1,266,270
2001		3,388,585	0.3849	1,304,258
2002		3,131,500	0.3964	1,241,466
2003		2,858,990	0.4083	1,167,434
2004		2,570,129	0.4206	1,080,966
2005		2,263,937	0.4332	980,750
2006	<u>.</u>	1,939,373	0.4462	865,352
2007	Ψ,	1,595,335	0.4596	733,197
2008		1,230,655	0.4734	582,562
2009	**	844,094	0.4876	411,561
2010		434,340	0.5022	218,127

#### MATURAL GAS FUEL COST - DISPLACEMENT DISTRIBUTION

4. /			
40.50	TOTAL NATURAL	19.6%	80.4%
YEAR	GAS COST	OIL	COAL
·	*******		
1991	73,629	14,431	59,198
1992	156,226	30,620	125,606
1993	248,681	48,741	199,940
1994	351,967	68,985	282,981
1995	467,147	91,561	375,586
1996	595,388	116,696	478,692
1997	737,961	144,640	593,321
1998	896,261	175,667	720,594
1999	1,071,809	210,075	861,734
2000	1,266,270	248,189	1,018,081
2001	1,304,258	255,635	1,048,624
2002	1,241,466	243,327	998,139
2003	1,167,434	228,817	938,617
2004	1,080,966	211,869	869,096
2005	980,750	192,227	788,523
2006	865,352	169,609	695,743
2007	733,197	143,707	589,490
2008	582,562	114,182	468,380
2009	411,561	80,666	330,895
2010	218,127	42,753	175,374
TOTAL	*	2,832,399	11,618,614

#### RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

TABLE - 6 - FUEL SAVINGS OIL

YEAR	AVOIDED OIL COSTS	GAS COSTS	Puel Savings
1991	24,941	14,431	10,510
7.7.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	53,433	30,620	22,813
1992		48,741	37,140
1993	85,881		53,745
1994	122,730	68,985	72,914
1995	164,475	91,561	94,965
1996	211,661	116,696	
1997	264,893	144,640	120,253
1998	324,839	175,667	149,172
1999	392,235	210,075	182,160
2000	467,899	- 248,189	219,710
2001	486,615	255,635	230,980
2002	467,684	243,327	224,357
2003	444,065	228,817	215,248
2004	415,166	211,869	203,297
2005	380,334	192,227	188,107
2006	338,840	169,609	169,231
2007	289,880	143,707	146,173
2008	232,561	114,182	118,379
2009	165,892	80,666	85,226
2010	88,776	42,753	46,023
6			2,590,403

SUMMARY SHEET ITEM 9A

TABLE - 7 - FUEL SAVINGS COAL

TEAR	OIL COSTS	GAS COSTS	FUEL SAVINGS
	******		
1991	61,893	59,198	2,695
1992	131,324	125,606	5,718
1993	209,041	199,940	9,101
1994	295,863	282,981	12,882
1995	392,684	375,586	17,098
1996	500,483	478,692	21,791
1997	620,330	593,321	27,009
1998	753,396	720,594	32,802
1999	900,962	861,734	39,228
2000	1,064,426	1,018,081	46,345
2001	1,096,359	1,048,624	47,735
2002	1,043,576	998,139	45,437
2003	981,344	938,617	42,727
2004	908,659	869,096	39,563
2005	824,418	788,523	35,895
2006	727,414	695,743	31,671
2007	616,325	589,490	26,835
2008	489,701	468,380	21,321
2009	345,958	330,895	15,063
2010	183,358	175,374	7,984
	٠.		528,900

SUMMARY SHEET ITEM 9B

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## RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE AND OIL HEATING REPLACEMENT PROGRAM

TABLE - 8 - TOTAL SAVINGS

CONSTRUCTION DEFERRED	OIL SAVINGS	COAL SAVINGS	TOTAL SAVINGS
	10.510	2 (05	1 004 257
			1,824,357
			2,052,235
2,260,339	37,140	9,101	2,306,580
2,525,915	53,745	12,882	2,592,542
		17,098	2,911,602
			3,269,844
			3,669,306
			4,117,296
			4,618,087
			5,178,223
4/220/200			278,715
u .			269,794
41.			257,975
7. 3			242,860
			224,002
<b>6</b> .			200,902
3			173,008
* 1			
Z .			139,700
- 57	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		100,289
2	46,023	7,984	54,007
	DEFERRED  1.811,152 2.023,704 2.260,339 2.525,915 2.821,590 3.153,088 3.522,044 3.935,322 4.396,699 4.912,168	DEFERRED SAVINGS  1.811,152 10,510 2,023,704 22,813 2,260,339 37,140 2,525,915 53,745 2,821,590 72,914 3,153,088 94,965 3,522,044 120,253 3,935,322 149,172 4,396,699 182,160 4,912,168 219,710 230,980 224,357 215,248 203,297 188,107 169,231 146,173 118,379 85,226	DEFERRED SAVINGS  1.811,152 10,510 2,695 2,023,704 22,813 5,718 2,260,339 37,140 9,101 2,525,915 53,745 12,882 2,821,590 72,914 17,098 3,153,088 94,965 21,791 3,522,044 120,253 27,009 3,935,322 149,172 32,802 4,396,699 182,160 39,228 4,912,168 219,710 46,345 230,980 47,735 224,357 45,437 215,248 42,727 203,297 39,563 188,107 35,895 169,231 31,671 146,173 26,835 118,379 21,321 85,226 15,063

TABLE - 9 - NET PRESENT VALUE OF TOTAL PROGRAM

YEAR	TOTAL	DISCOURT RATE	PRESENT VALUE
1991	1,824,357	1.0000	1,824,357
1992	2,052,235	0.9054	1,858,094
1993	2,306,580	0.8197	1,890,704
1994	2,592,542	0.7422	1,924,185
1995	2,911,602	0.6720	1,956,597
1996	3,269,844	0.6084	1,989,373
1997	3,669,306	0.5508	2,021,054
1998	4,117,296	0.4987	2,053,296
1999	4,618,087	0.4515	2,085,066
2000	5,178,223	0.4088	2,116,858
2001	278,715	0.3701	103,152
2002	269,794	0.3351	90,408
2003	257,975	0.3034	78,270
2004	242,860	0.2747	66,714
2005	224,002	0.2487	55,709
2006	200,902	0.2252	45,243
2007	173,008	0.2039	35,276
2008	139,700	0.1846	25,789
2009	100,289	0.1671	16,758
2010	54,007	0.1513	8,171
TOTAL			20,245,072

# WEST FLORIDA NATURAL GAS RATEPAYER BENEFITS RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE & OIL HEATING REPLACEMENT PROGRAM

#### **WEST FLORIDA NATURAL GAS RATE PAYER BENEFITS**

## RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE & OIL HEATING REPLACEMENT PROGRAM

#### Results from Allowance Program

#### Estimated Gas Company Expenditures

78 to 10		
24	1. Personnel Costs	\$334,792
to provide the	2. Advertising Costs	\$494,280
* * *	3. Installation Allowances	\$3,622,280
	4. Total Costs	\$4,451,352
T	5. Present Value of Total Costs	\$2,826,228
Present \	/elue of Total Program Benefits	
	6. Present Value Benefits	\$8,484,957
•	7. Present Value of Total Costs	\$2,826,228
	8. Line 6 - Line 7	\$5,658,729
Benefit/C	cet Ratio from Cumulative Totals	
Lir	ne 6 / Line 7	3.01 TO 1
Discount	Payback	
Lie	ne 7 / Line 6 (Years)	.34 YRS
	A	

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#### GAS RATEPAYERS COST EFFECTIVENESS ANALYSIS

#### LIST OF ASSUMPTIONS

## RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE & OIL HEATING REPLACEMENT PROGRAM

1.	1991 Program Personnel Costs Escalation Rate - Personnel Costs	\$25,400 /YR 8.0% /YR
2	1991 Advertising Costs Escalation Rate - Advertising Costs	\$37,500 /YR 6.0% /YR
3.	Applicable Non-Gas Energy Charge Escalation Rate - Non-Gas Energy Charge	\$0.2847 /THERM 0.0% /YR
5.	Average Natural Gas Annual Therm Consumption Per Installed Appliance	261 THERM
6.	Period of Appliance Use	10 YEARS
7.	Discount Rate or Rate of Time Preference	10.45% /YR
8.	Appliances installed during Program 1st Year Escalation Rate	965 6.0% /YR
9.	Average Allowance Per Appliance	\$279
10.	Demand Charges (\$/TH)	\$0.02284
11.	Monthly Service Charge	\$6
12	Heat Only Disconnect Period (Months)	6
13.	Cost to Cap Service at Main Escalation Rate	\$125 3.0%
14.	Cost to Run Service from Main/Set Regulator and Meter Cost to Set Regulator and Meter Only Escalation Rate	\$375 \$120 3.0%

15.	Installation Distribution:	
	Heat Only	10.05
	Reactivate	10.09
100	New on Main	45.09
	New on Main Added Load	35.09

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#### NUMBER OF APPLIANCES INSTALLED

YEAR	APPLIANCES INSTALLED	APPLIANCES IN SERVICE
1991	985	985
1992	1,044	2,029
1993	1,107	3,136
1994	1,173	4,309
1995	1,244	5,553
1996	1,318	6,871
1997	1,397	8,268
1998		9,749
1999	1,570	11,319
2000	1,664	12,983 12,983
2002	o o	12,983
2003	ŏ	12,983
2004	ō	12,983
2005	4 0	12,983
2006	0	12,983
2007	0	12,983
2008	0	12,983
2009	- 0	12,983
2010	. 0	12,983
TOTAL	12,983	

## TABLE 1 - PROGRAM COSTS

YEAR	PERSONNEL	ADVERTISING COSTS	Installation Allowances	TOTAL
100	>			
1991	25,400	37,500	274,815	337,715
1992	26,924	39,750	291,304	357,978
1993	28,539	42,135	308,782	379,457
1994	30,252	44,663	327,309	402,224
1995	32,067	47,343	346,948	426,357
1996	33,991	50,183	367.764	451,939
1997	36,030	53, 194	389,830	479,055
1998	38,192	56,386	413,220	507,798
1999	40,484	59,769	438,013	538,266
2000	42,913	63,355	464,294	570,562
1				
TOTAL	334,792	494,280	3,622,280	4,451,352

SUMMARY SHEET ITEMS 1, 2, 3 AND 4

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TABLE 2 - PRESENT VALUE OF TOTAL COSTS

2 1	TOTAL	DISCOUNT	PRESENT
YEAR	COSTS	PACTOR	VALUE
-	-		-
1991	337,715	1.00000	337,715
1992	357,978	0.90539	324,110
1993	379,457	0.81973	311,052
1994	402,224	0.74217	298,519
1995	426,357	0.67195	286,491
1996	451,939	0.60838	274,951
1997	479,055	0.55081	263,868
1998	507,798	0.49870	253,239
1999	538,266	0.45152	243,038
2000	570,562	0.40880	233,246
TOTAL	4,451,351		2,826,228

#### SUMMARY SHEET ITEM 5

TABLE 3 - ESTIMATED MUMBER OF THERMS ADDED

YEAR	THERMS ADDED	THERMS CUMULATIVE	GROSS MARGIN	"A" TOTAL MARGIN
1991	257,085	257,085	0.2648	68,086
1992		529,569	0.2648	140,251
1993	288,927	818,496	0.2648	216,770
	306,153	1,124,649	0.2648	297,852
1995	324,684	1,449,333	0.2648	383,841
1996	343,998	1,793,331	0.2648	474,946
1997	364,617	2,157,948	0.2648	571,511
1998	386,541	2,544,489	0.2648	673,882
1999	409,770	2,954,259	0.2648	782,406
2000	434,304	3,388,563	0.2648	897,427
2001	222,722	3,388,563	0.2648	897,427
2002		3,388,563	0.2648	897,427
2003		3,388,563	0.2648	897,427
2004		3,388,563	0.2648	897,427
2005		3,388,563	0.2648	897,427
2006		3,388,563	0.2648	897,427
2007		3,388,563	0.2648	897,427
2008		3,388,563	0.2648	897,427
2009	-	3,388,563	0.2648	897,427
2010		3,388,563	0.2648	897,427
2011		3,308,563	0.2648	897,427
TOTAL	3,388,563			14,378,671

NEW SERVICE & METER SETS
TABLE 4 - OPERATING COSTS & SAVINGS

YEAR	COSTS	CUT & CAP EAVINGS	"B" NET
1991	178,039	12,313	(165,726)
1992	194,383	13,443	(180,940)
1993	212,227	14,677	(197,550)
1994	231,709	16,024	(215,685)
1995	252,980	17,495	(235, 485)
1996	276,204	19,101	(257, 103)
1997	301,560	20,855	(280,705)
1998	329,243	22,769	(306, 474)
1999	359,467	24,859	(334,608)
2000	392,466	27,142	(365,325)
TOTAL	2,728,278	188,678	(2,539,601)

TABLE 5 - DEMAND DISPLACEMENT CHARGES AND CUSTOMER SERVICE CHARGES

YEAR	APPLIANCES IN SERVICE	DEMAND DISPLACE	CUST SERVICE CHARGE	TOTAL CONTRIB.
1991	985	5,872	67,374	73,246
1992	2,029	12,096	138,790	150,886
1993	3,136	18,694	214,492	233,185
1994	4,309	25,687	294,735	320,422
1995	5,553	33,100	379,794	412,894
1996	6,871	40,958	469,955	510,913
1997	8,268	49,287	565,526	614,814
1998	9,749	58,116	666,832	724,948
1999	11,319	67,475	774,216	841,691
2000	12,983	77,395	888,043	965,438
2001	12,983	77,395	888,043	965,438
2002	12,983	77,395	888,043	965,438
2003	12,983	77,395	888,043	965,438
	12,983	77,395	888,043	965,438
2004	12,983	77,395	888,043	965,438
2006	12,983	77,395	888,043	965,438
2007		77,395	888,043	965,438
2008		77,395	888,043	965,438
	12,983		888,043	965,438
2009	12,983	77,395	888,043	965,438
2011	12,983 12,983	77,395 77,395	888,043	965,438
TOTAL		1,240,028	14,228,231	15,468,258

PARLE 6 - PRESENT VALUE OF TOTAL PROGRAM

YEAR	(A + B + C) TOTAL CONTRIB.	DISCOUNT FACTOR	PRESENT
1001	194 3041	1.00000	(24,394)
1991	(24,394)	0.90539	99,772
1592	110,197	0.81973	206,904
1993	252,405	0.74217	298,789
1994	402,589	0.67195	377,131
1995	561,249	0.60838	443,361
1996	728,756	0.55081	498,824
1997	905,620	0.49870	544,758
1998	1,289,489	0.45152	582,230
		0.40880	612,195
2000	1,862,865	0.37012	689,484
2002	1,862,865	0.33510	624,246
2003	1,862,865	0.30340	565, 193
2004	1,862,865	0.27469	511,710
2005	1,862,865	0.24870	463,295
2006	1,862,865	0.22517	419,461
2007	1,862,865	0.20387	379,782
2008	1,862,865	0.18458	343,848
2009	1,862,865	0.16712	311,322
2010	1,862,865	0.15130	281,852
2011	1,862,865	0.13699	255,194
TOTAL	27,307,327		8,484,957

SUMMARY SHEET ITEM MUMBER 6

## Program Description

The Residential Home Builders Program is designed to increase the use of efficient natural gas in private residences by encouraging home builders to install energy efficient natural gas appliances in new residences in lieu of electrical appliances. This substitution will conserve energy, as well as lower the ratepayer's total annual energy costs.

Past objections to installing natural gas appliances in new homes included the additional initial costs required for piping, appliance connections, combustion air provisions, and gas appliance venting. This program proposes allowances payable to the builders to help detray the added costs for installing natural gas appliances, thus making these appliances more attractive and competitive to home builders. These additional costs have been determined by builders in the area to be between \$500.00 and \$700.00. The average cost in the State of Florida, as a whole, is \$950.00 to install natural gas piping and venting in the typical Florida home.

## II. Program Participation Standards

Any builder of a new single or multi-family residential dwelling who installs energy efficient gas fired heating or water heating is eligible to participate in this program.

A cash allowance will be paid to each participant to help defray the additional costs associated with the construction of piping and venting that natural gas appliances require.

An incentive is justified because the installation of natural gas equipment increases total

construction costs without an affecting decrease in electrical wiring costs. This allowance represents a 63% conservation incentive factor, leaving only 37% of the extra costs to be absorbed by the local contractor.

The allowences that are paid under this program are as follows:

Year	Heating	Water Heater	Range	Dryer
1990	225	100	50	60
1991	250	150	100	100
1902	250	150	100	100
1993	250	150	100	100
.%∜% <sub>0</sub> 1994	250	150	100	100
1995	250	150	100	100

#### III. Benefits and Costs

The following effects in decreasing average kilowatt (KWH) consumption and kilowatt demand (KWD) displacement are expected with the installation of natural gas appliances in new residences:

Appliance	KWD Displacement	Displacement Annual KWH Consumption		
each central heater	7.50	5700		
each water heater	.91	4500		
each range	•	1650		
each clothes dryer	-0-	1800		

Company-wide projections for this program, as well as the demand and energy savings are listed on Table A-1. The number of residences built under this program in

the pest and projections for future residences eligible under the program guidelines are listed on Table A-2.

Based on historical construction data and on projections for future construction trends, first year costs are anticipated to be:

Per Customer \$4.42 / 52,280 Total Customers

Administrative \$49,875

incentives \$180,950

## W. Cost Effectiveness Methodology

Based on the cost effectiveness methodology used in currently approved conservation programs, and using the assumptions listed, a benefit/cost ratio of 13.31 to 1 with a payback period of .08 years will be achieved for the State of Florida. The ratepayers of West Florida Natural Gas Company will receive a benefit/cost ratio of 2.67 to 1 with a payback period of .37 years.

## V. Program Monitoring and Evaluation

Program is monitored monthly at both divisions of the company. The Panama City office also submits a semi-annual report to the Florida Public Service Commission for both divisions. Feedback received from both divisions is constantly evaluated, and any revisions will be proposed to the program based upon these evaluations. Allowances paid to eligible participants under the program guidelines are based upon documentation and information necessary for Florida Public Service Commission audit purposes.

#### ATTACHMENT $\lambda - 1$

## RESIDENTIAL HOME BUILDER PROGRAM

## PROJECTED FORECASTED CONSERVATION

YEAR	5 4	AVOIDED	ANNUAL KWH REDUCTION
	113-	CAPACITI	
1991		3,238	4,390,540
1992	ď	3,335	4,522,256
1993	· <u>=</u>	3,435	4,657,924
1994	1.	3,538	4,797,662
1995		3,644	4,941,591
1996	v	3,754	5,089,839
1997		3,866	5,242,534
1998	h .	3,982	5,399,810
1999		4,102	5,561,805
2000		4,225	5,728,659
6.2			
TOTAL		37,118	50,332,621

ATTACHMENT A-2

YEAR	OF ELIGIBLE PARTICIPANTS	OF ACTUAL PART- ICIPATING HOMES	t OF ACTUAL TO ELIGIBLE
1985	28,500	720	2.53%
1986	28,500	897	3.15%
1987	28,500	649	2.28%
1988	28,500	829	2.91
1989	28,500	417	1.46%
1990	28,500	360	1.26%
1991	28,500	385	1.35%
1992	28,500	397	1.39%
1993	28,500	408	1.43%
1994	28,500	421	1.48%
1995	28,500	433	1.52%
1996	28,500	446	1.57%
1997	28,500	460	1.61%
1998	28,500	474	1.66%
1999	28,500	488	1.71%
2000	28,500	502	1.76%

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# RESIDENTIAL HOME BUILDER PROGRAM

## Results from Allowance Program

# Estimated Gas Company Expanditures

1.70		
1	1. Personnel Costs	\$312,104
A -	2. Advertising Cost	\$259,657
	3. Installation Allowances	\$2,074,580
	4. Total Costs	\$2,646,341
ngi (g)	5. Present Value of Total	\$1,720,033
В	eductions	
-	6. KW	37,118
4	7. MWH	553,659
E	stimuted Electric Company Benefits	
	8. Construction Savings	\$34,734,783
	9. Fuel Purchase Savings	
	A. OI	\$2,608,064
	B. Coal	\$683,904
	10. Total Savings	\$38,026,751
N	et Present Value of Total Program	
	11. Net Present Value	\$22,888,389
N	et Benefits from Cumulative Totals	
	Cal 11 - Cal 5	\$21,168,356

## Benefit/Cost Ratio from Cumulative Totals

Col 11 / Col 5 13.31 TO 1

Discount Payback

Cal 5 / Cal 11 (Years) .08 YEARS

## LIST OF ASSUMPTIONS

## RESIDENTIAL HOME BUILDER PROGRAM

7.4	MONEY OF THE PARTY		
1.	1991 Program Personnel Costs. Escalation Rate - Personnel Costs.	27,225 3.0%	
2	1991 Advertising Costs. Escalation Rate - Advertising Costs.	22,650 3.0%	
3	Fuel cost of Natural Gas 1991 Escalation Rate - Fuel Cost Natural Gas	\$0.28644 3.0%	
3	KWH Produced from Ton/Coal	2076	KWH
5.	KWH Produced from Barrel #6 Oil	613	KWH
6.	Percentage Breekdown of Displaced Fuel from Reduced KWH Generation	19.6% 80.4%	OIL COAL
7.	1991 Construction Cost per KW. (Pulverized Coal) Escalation Rate of Construction.	\$721 5.4%	
•	Average Allowance per Installation 385 Central Heaters, 385 Water Heaters, 150 Ranges & 120 Dryers (Central Heater = \$250, Water Heater = \$150) (Range = \$100, Dryer = \$100)	\$470	/INS
<b>9.</b>	Average KW for Gas Appliances Each Installation (Central Heeter = 5700, Water Heater = 4500) (Range = 1650, Dryer = 1800)	11,404	KW
10.	Demand Displacement Winter Peak. (Water Heater = .91, Central Heater = 7.50) (Range and Dryer = nil)	8.41	KW
11.	Natural Gas Annuel Therm consumption per Installation. (Water Heater = 300, Central Heater = 380) (Range = 110, Dryer = 120)	760	THERM
12	Period of Appliance Use.	10	YRS

13.	Homes Installing Escalation Rate	Gee During Pr	ogram 1st Yea			385 3.0%	UNITS MR
14.	Price of Oil per Escalation Rate				_	20.50 4.0%	/BBL /YR
15.	Price of Coal pe Eccelstion Rate	r Ton				42.00 3.0%	/TON /YR
16.	Discount Rate o	r Rate of Time	Preference		10	.45%	MR
47.	Number of Appl	lence installatio	ns During Pro	gram Life			
1991	1040	1993	1103	1995	1170		

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TABLE - 1 - PROGRAM COSTS

YEAR	PERSONNEL. COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
1991	27,225	22,650	180,950	230,825
1992	28,042	23,330	186,590	237,961
1993	20,883	24,029	191,760	244,672
1994	29,749	24,750	197,870	252,370
1995	30,642	25,493	203,510	259,645
1996	31,561	26,258	209,620	267,439
1997	32,508	27,045	216,200	275,753
1998	33,483	27,857	222,780	284,120
1999	34,488	28,692	229,360	292,540
2000	35,522	29,553	235,940	301,016
	312,104	259,657	2,074,580	2,646,341

SUMMARY SHEET ITEMS 1, 2, 3, AND 4.

TABLE - 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	TOTAL	DISCOUNT FACTOR	PRESENT VALUE
1991 1992 1993 1994 1995 1996	230,825 237,961 244,672 252,370 259,645 267,439 275,753	1.00000 0.90539 0.81973 0.74217 0.67195 0.60838 0.55081	230,825 215,448 200,565 187,301 174,468 162,704 151,888
1998 1999 2000	284,120 292,540 301,016	0.49870 0.45152 0.40880	141,691 132,088 123,055

SUNDIARY SHEET ITEM 5

#### SEVIETO !

## RESIDENTIAL HOME BUILDER PROGRAM

TABLE - 3 - ESTIMATED INSTALLATIONS OF NATURAL GAS HOMES

YEAR	WATER HEATERS DISPLACED	DISPLACED	KWH AVOIDED
1991	385	3,238	4,390,540
1992	397	3,335	4,522,256
1993	408	3,435	4,657,924
1994	421	3,538	4,797,662
1995	433	3,644	4,941,591
1996	446	3,754	5,089,839
1997	460	3,866	5,242,534
1998	474	3,982	5,399,810
1999	488	4,102	5,561,805
2000	502	4,225	5,728,659
26			
	4,414	37,118	50,332,621

TABLE - 4 - KW AVOIDANCE AND KWH REDUCTIONS PROM PROGRAM

YEAR	. № =	KW	KWH	CUMULATIVE
1991		3,238	4,390,540	4,391
1992	G. 55	3,335	4,522,256	8,913
1993	2194	3,435	4,657,924	13,571
1994		3,538	4,797,662	18,368
1995		3,644	4,941,591	23,310
1996	art.	3,754	5,089,839	28,400
1997		3,866	5,242,534	33,642
1998	Tue.	3,982	5,399,810	39,042
1999	100	4,102	5,561,805	44,604
2000		4,225	5,728,659	50,333
2001	#1	2.4.4.4.7		50,333
2002	*			45,942
2003	4 - "			41,420
2004	14	ě.		36,762
2005		4		31,964
2006				27,023
2007				21,933
2008	144			16,690
	5			11,290
2010				5,729
				553,659

#### SUNGCARY SHEET ITEM 7

TABLE - 5 - TOTAL CONSTRUCTION COSTS DEFERRED

YBAR *	KW DEFERRED	COSTS PER	TOTAL CONSTRUCTION COSTS DEFERRED
1991 -	3,238	721	2,334,490
1992	3,335	760	2,534,369
1993	3,435 3,538	801 844	2,751,362 2,986,933
1995	3,644	890	3,242,674
1996	3,754	938	3,520,312
1997	3,866	989	3,821,721
1998	3,982	1,042 1,098	4,148,937 4,504,169
3000	4,102 4,225	1,157	4,889,816
			34,734,783
C 46 10 10 11			

#### COMMANY SHEET ITEM &

PITRI.	SA	VIDICE	100	OIL

YEAR	REDUCED	19.6% OIL	RM/BBL	\$/BBL	AVOIDED COSTS
1991	4,390,540	860,546	613	20.50	28,778
1992	8,912,796	1,746,908	613	21.32	60,757
1993	13,570,720	2,659,861	613	22.17	96,210
1994	10,368,382	3,600,203	613	23.06	135,432
1995	23,309,973	4,568,755	613	23.98	178,741
1996	26,399,812	5,566,363	613	24.94	226,481
1997	33,642,346	6,593,900	613	25.94	279,020
1998	39,042,156	7,652,263	613	26.98	336,757
1999	44,603,961	8,742,376	613	28.06	400,119
2000	50,332,620	9,865,194	613	29.18	469,569
2001	50,332,620	9,865,194	613	30.35	488,351
2002	45,942,080	9,004,648	613	31.56	463,582
2003	41,419,834	8,118,286	613	32.82	434,668
2004	36,761,900	7,205,332	613	34.13	401,218
2005	31,964,238	6,264,991	613	35.50	362,811
2006	27,022,647	5,296,439	613	36.92	318,990
2007	21,932,808	4,298,830	613	38.40	269,263
2008	16,690,274	3,271,294	613	39.93	213,098
2009	11,290,464	2,212,931	613	41.53	149,921
2010	5,728,659	1,122,817	613	43.19	79,111
TOTAL	Co.T.				5,392,879

FUEL SAVINGS - COAL

	English Co.	_			
YEAR	REDUCED	80.48 COAL	KW/TON	\$/TON	AVOIDED
				40.00	73 436
1991	4,390,540	3,529,994	2,076	42.00	71,416
1992	8,912,796	7,165,888	2,076	43.26	149,324
1993	13,570,720	10,910,859	2,076	44.56	234,183
1994	18,368,382	14,768,179	2,076	45.89	326,483
1995	23,309,973	18,741,218	2,076	47.27	426,745
1996	28,399,812	22,833,449	2,076	48.69	535,525
1997	33,642,346	27,048,446	2,076	50.15	653,413
1998	39,042,156	31,389,893	2,076	51.65	781,038
1999	44,603,961	35,861,585	2,076	53.20	919,071
2000	50,332,620	40,467,426	2,076	54.80	1,068,225
2001	50,332,620	40,467,426	2,076	56.44	1,100,271
2002	45,942,080	36,937,432	2,076	58.14	1,034,423
2003	41,419,824	33,301,538	2,076	59.88	960,579
2004	36,761,900	29,556,568	2,076	61.68	878,132
2005	31,964,238	25,699,247	2,076	63.53	786,436
2006	27,022,647	21,726,208	2,076	65.43	684,801
2007	21,932,808	17,633,978	2,076	67.40	572,490
2008	16,690,274	13,418,980	2,076	69.42	448,719
2009	11,290,464	9,077,533	2,076	71.50	312,651
2010	5,728,659	4,605,842	2,076	73.65	163,395
					12.107.319

## ANDUAL FUEL CONSUMPTION - NATURAL GAS

A TOTAL CONTRACTOR OF THE PARTY			
YEAR CONSUM	ED CUMULATIVE	\$/THERM	TOTAL COSTS
1991 292,6		0.2864 0.2950	83,801 175,320
1992 301,7 1993 310,0	20 594,320 80 904,400	0.3038	274,794
1994 319,9		0.3130	383,172
1995 329,0		0.3223	500,745
1996 338,9	60 1,892,400	0.3320	628,307
1997 349,6	00 2,242,000	0.3420	766,711
1998 360,2	40 2,602,240	0.3522	916,602
1999 370,8		0.3628	1,078,657
2000 381,5	3,354,640	0.3737	1,253,585
2001	3,354,640	0.3849	1,291,193
2002	3,062,040	0.3964	1,213,929
2003	2,760,320	0.4083	1,127,143
2004	2,450,240	0.4206	1,030,542
2005	2,130,280	0.4332	922,849
2006	1,801,200	0.4462	803,699
2007	1,462,240	0.4596	672,028
2008	1,112,640	0.4734	526,697
2009	752,400	0.4876	366,853 191,601
2010	381,520	0.5022	191,001

# MATURAL GAS FUEL COST - DISPLACEMENT DISTRIBUTION

A			
YEAR	TOTAL MATURAL GAS COST	19.6% OIL	SO.43 COAL
	-		
1991	83,801	16,425	67,376
1992	175,320	34,363	140,957
1993	274,794	53,860	220,935
1994	383,172	75,102	308,070
1995	500,745	98,146	402,599
1996	628,307	123,148	505,159
1997	766,711	150,275	616,436
1998	916,602	179,654	736,948
1999	1,078,657	211,417	867,240
2000	1,253,585	245,703	1,007,883
III JACOB SANCE SANCE OF		253,074	1,038,119
2001	1,291,193		
2002	1,213,929	237,930	975,999
2003	1,127,143	220,920	906,223
2004	1,030,542	201,986	828,556
2005	922,849	180,878	741,971
2006	803,699	157,525	646,174
2007	672,028	131,717	540,310
2008	526,697	103,233	423,464
2009	366,853	71,903	294,950
2010	191,601	37,554	154,047
TOTAL	<b>⊬</b> 11 <u>.</u>	2,784,813	11,423,416

## RESIDENTIAL HOME BUILDER PROGRAM

TABLE - 6 - FUEL SAVINGS OIL

100	A 100		
	AVOIDED	GAS	FUEL
YEAR	OIL COSTS	COSTS	SAVINGS
1991	28,778	16,425	12,353
1992	60,757	34,363	26,394
1993	06 210	53,860	42,350
1994	135,432	75,102	60,330
1995	178,741	98,146	80,595
1996	226,481	123,148	103,333
1997	279,020	150,275	128,745
1998	336,757	179,654	157,103
1999	400,119	211,417	188,702
2000	469,569	245,703	223,866
2001	488,351	253,074	235,277
2002	463,582	237,930	225,652
2003	434,668	220,920	213,748
2004	401,218	201,986	199,232
2005	362,811	180,878	181,933
2006	318,990	157,525	161,465
2007	269,263	131,717	137,546
2008	213,098	103,233	109,865
2009	149,921	71,903	78,018
2010	79,111	37,554	41,557
	,		2,608,064
4	r ac		

SUMMARY SHEET ITEM 9A

TABLE - 7 - FUEL SAVINGS COAL

YEAR	AVOIDED OIL COSTS	GAS COSTS	FUEL SAVINGS
707			
1991	71,416	67,376	4,040
1992	149,324	140,957	8,367
1993	234, 183	220,935	13,248
1994	326,483	308,070	18,413
1995	426,745	402,599	24,146
1996	535,525	505,159	30,366
1997	653,413	616,436	36,977
1998	781,038	736,948	44,090
1999	919,071	867,240	51,831
2000	1,068,225	1,007,883	60,342
2001	1,100,271	1,038,119	62,152
		975,999	58,424
2002	1,034,423		
2003	960,579	906,223	54,356
2004	878,132	828,556	49,576
2005	786,436	741,971	44,465
2006	684,801	646,174	38,627
2007	572,490	540,310	32,180
2008	448,719	423,464	25,255
2009	312,651	294,950	17,701
2010	163,395	154,047	9,348
1947			683,904

ATTACABLE ATTACABLE AND ARE

TABLE - 8 - TOTAL SAVINGS

- 41.7 (48.7	PERSONAL PROPERTY.			
4	CONSTRUCTION	OIL	COAL	TOTAL
YEAR	DEPENDED	SAVINGS	SAVINGS	SAVINGS
1991	,334,490	12,353	4,040	2,350,883
	2,534,369	26,394	8,367	2,569,130
CONTRACT METERS OF THE PROPERTY OF THE PROPERT	2,751,362	42,350	13,248	2,806,960
	2,986,933	60,330	18,413	3,065,676
	242,674	80,595	24,146	3,347,415
	3,520,312	103,333	30,366	3,654,011
	3,821,721	128,745	36,977	3,987,443
	4,148,937	157,103	44,090	4,350,130
	1,504,169	188,702	51,831	4,744,702
- 12.00	4,889,816	223,866	60,342	5,174,024
2001	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	235,277	62,152	297,429
2002	W	225,652	58,424	284,076
2003	6	213,748	54,356	268,104
2004	100	199,232	49,576	248,808
2005		181,933	44,465	226,398
2006	2	161,465	38,627	200,092
2007	in.	137,546	32,180	169,726
2000		109,865	25,255	135,120
2009		78,018	17,701	95,719
2010		41,557	9,348	50,905

## TABLE - 9 - MET PRESENT VALUE OF TOTAL PROGRAM

YEAR	TOTAL	DISCOUNT RATE	PRESENT VALUE
1991	2,350,883	1.0000	2,350,883
1992	2,569,130	0.9054	2,326,090
1993	2,806,960	0.8197	2,300,865
1994	3,065,676	0.7422	2,275,345
1995	3,347,415	0.6720	2,249,463
1996	3,654,011	0.6084	2,223,100
1997	3,987,443	0.5508	2,196,284
1998	4,350,130	0.4987	2,169,410
1999	4,744,702	0.4515	2,142,233
2000	5,174,024	0.4088	2,115,141
2001	297,429	0.3701	110,078
2002	284,076	0.3351	95,194
2003	268,104	0.3034	81,343
2004	248,808	0.2747	68,348
2005	226,398	0.2487	56,305
2006	200,092	0.2252	45,061
2007	169,726	0.2039	34,607
2008	135,120	0.1846	24,943
2009	95,719	0.1671	15,995
2010	50,905	0.1513	7,702
	, N		22 000 300

22,888,389

b.

# WEST FLORIDA NATURAL GAS RATEPAYER BENEFITS RESIDENTIAL HOME BUILDER PROGRAM

## WEST FLORIDA NATURAL GAS RATE PAYER BENEFITS

# RESIDENTIAL HOME BUILDER PROGRAM

# Results from Allowance Program

## Estimated Gas Company Expanditures

1. Personnel Costs	\$312,104
2. Advertising Costs	\$259,657
3. Installation Allowances	\$2,074,580
4. Total Costs	\$2,646,341
5. Present Value of Total Costs	\$1,720,033
Present Value of Total Program Benefits	
6. Present Value Benefits	\$4,589,377
7. Present Value of Total Costs	\$1,720,033
8./Line 6 - Line 7	\$2,869,344
Benefit/Cost Ratio from Cumulative Totale	
Line 6 / Line 7	2.67 TO 1
Discount Predeck	
Line 7 / Line 6 (Years)	.37 YRS

## GAS RATEPAYERS COST EFFECTIVENESS ANALYSIS

# LIST OF ASSUMPTIONS

## RESIDENTIAL HOME BUILDER PROGRAM

The same		
1.	1991 Program Personnel Costs Escalation Rate - Personnel Costs	\$27,225 MR 3.0% MR
12	1991 Advertising Costs Escalation Rate - Advertising Costs	\$22,650 /YR 3.0% /YR
3.	Applicable Non-Gas Energy Charge Escalation Rate - Non-Gas Energy Charge	\$0.2847 /THERM 0.0% /YR
6.	Average Natural Gas Annual Therm Consumption per Installed Appliance	760 THERM
4	Period of Appliance Use	10 YEARS
7.	Discount Rate or Rate of Time Preference	10.45% /YR
1	Homes Installing Gas During Program 1st Year Escalation Rate	385 3.0% /YR
9.	Average Allowance per Installation	\$470
10.	Demand Charges (S/TH)	\$0.02284
11.	Monthly Service Charge	\$6
12	Heat Only Disconnect Period (Months)	6
13.	Cost to Cap Service at Main Escalation Rate	\$125 3.0%
14.	Cost to Run Service from Main/Set Regulator and Meter Cost to Set Regulator and Meter Only Escalation Rate	\$375 \$120 3.0%
16.	Installation Distribution: Heat Only Reactivate New on Main Added Load	0.0% 0.0% 100.0% 0.0%

#### NUMBER OF NOMES PARTICIPATING

	HOMES PARTICIPATING	HOMES
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007	385 397 408 421 433 446 460 474 488 502	385 782 1,190 1,611 2,044 2,490 2,950 3,424 3,911 4,414 4,414 4,414 4,414 4,414 4,414 4,414 4,414 4,414
2009 2010 TOTAL	4,414	1;111

#### TABLE 1 - PROGRAM COSTS

YEAR	PERSONNEL COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
1991	27,225	22,650	180,950	230,825
1992	28,042	23,330	186,590	237,961
1993	28,883	24,029	191,760	244,672
1994	29,749	24,750	197,870	252,370
1995	30,642	25,493	203,510	259,645
1996	31,561	26,258	209,620	267,439
1997	32,508	27,045	216,200	275,753
1008	33,483	27,857	222,780	284,120
1999	34,488	28,692	229,360	292,540
2000	35,522	29,553	235,940	301,016
Manual Control				
TOTAL	312,104	259,657	2,074,580	2,646,341

SUMMARY SHEET ITEMS 1, 2, 3 AND 4

TABLE 2 - PRESENT VALUE OF TOTAL COSTS

YEAR COST	-	PRESENT VALUE
1991 230, 1992 217, 1993 244, 1994 252, 1995 259, 1996 267, 1997 275, 1998 284, 1999 292, 2000 301,	961 0.90539 672 0.81973 370 0.74217 645 0.67195 439 0.60838 753 0.55081 120 0.49879 540 0.45152	230,825 215,448 200,565 187,301 174,468 162,705 151,888 141,691 132,088 123,055
TOTAL		1,720,033

#### SUBSCRIPT SHEET ITEM 5

TABLE 3 - ESTIMATED MUMBER OF THERMS ADDED

YEAR STORES	THE SOLE	GROSS NARGIN	"A" TOTAL MARGIN
1991 292,600	292,600	0.2648	77,492
1992 301,720	594,320	0.2648	157,400
1993 310,080	904,400	0.2648	239,521
1994 319,960	1,224,360	0.2648	324,260
1995 329,080	1,553,440	0.2648	411,413
1996 338,960	1,892,400	0.2648	501,183
1997 349,600	2,242,000	0.2648	593,771
1998 360,240	2,602,240	0.2648	689,177
1999 370,880	2,973,120	0.2648	787,401
2000 381,520	3,354,640	0.2648	888,443
2001	3,354,640	0.2648	888,443
2002	3,354,640	0.2648	888,443
2003	3,354,640	0.2648	888,443
2004	3,354,640	0.2648	888,443
2005	3,354,640	0.2648	888,443
2006	3,354,640	0.2648	888,443
2007	3,354,640	0.2648	888,443
2008	3,354,640	0.2648	888,443
2009	3,354,640	0.2648	888,443
2010	3,354,640	0.2648	888,443
2011	3,354,640	0.2648	888,443
TOTAL 3,354,640			14,442,933

TABLE 4 - OPERATING COSTS & SAVINGS

YEAR	COSTS	CUT & CAP SAVINGS	"B" NET
1991	144,375	0	(144,375)
1992	148,875	. 0	(148,875)
1993	153,000	Ö	(153,000)
1994	157,875	Ŏ	(157,875)
1995	162,375	0	(162, 375)
1996	167,250	0	(167, 250)
1997	172,500	, 0	(172,500)
1998	177,750	0	(177,750)
1999	183,000	0	(183,000)
2000	188,250	0	(188, 250)
TOTAL	1,655,250	0	(1,655,250)

TABLE 5 - DEMAND DISPLACEMENT CHARGES AND CUSTOMER SERVICE CHARGES

max.	HOMES ON MAIN	DENAND DISPLACE	CUST SERVICE CHARGE	TOTAL CONTRIB.
1991	385	6,683	27,720	34,403
1992	782	13,574	28,552	42,126
1993	1,190	20,656	29,408	50,065
1994	1,611	27,964	30,290	58,255
1995	2,044	35,481	31,199	66,680
1996	2,490	43,222	32,135	75,357
1997	2,950	51,207	33,099	84,306
1998	3,424	59,435	34,092	93,527
1999	3,911	67,889	35,115	103,004
2000	4,414	76,620	36,168	112,788
2001	4,414	76,620	36,168	112,788
2002	4,414	76,620	36,168	112,788
2003	4,414	76,620	36,168	112,788
2004	4,414	76,620	36,168	112,788
2005	4,414	76,620	36,168	112,788
2006	4,414	76,620	36,168	112,788
2007	4,414	76,620	36,168	112,788
2008	4,414	76,620	36,168	112,788
2009	4,414	76,620	36,168	112,788
2010	4,414	76,620	36,168	112,788
2011	4,414	76,620	36,168	112,788
TOTAL		1,245,552	715,627	1,961,179

TABLE 6 - PRESENT VALUE OF TOTAL PROGRAM

YEAR	(A + B + C) TOTAL CONTRIB.	DISCOUNT PACTOR	PRESENT VALUE
1991	(32,480)	1.00000	(32,480)
1992	50,651	0.90539	45,859
1993	136,586	0.81973	111,963
1994	224,640	0.74217	166,721
1995	315,718	0.67195	212,146
1996	409,290	0.60838	249,004
1997	505,577	0.55081	278,477
1998	604,954	0.49870	301,691
1999	707,405	0.45152	319,407
2000	812,981	0.40880	332,347
2001	1,001,231	0.37012	370,576
2002	1,001,231	0.33510	335,513
2003	1,001,231	0.30340	303,773
2004	1,001,231	0.27469	275,028
2005	1,001,231	0.24870	. 249,006
2006	1,001,231	0.22517	225,447
2007	1,001,231	0.20387	204,121
2008	1,001,231	0.18458	184,807
2009	1,001,231	0.16712	167,326
2010	1,001,231	0.15130	151,486
2011	1,001,231	0.13699	137,159
TOTAL	14,748,863		4,589,377

SUMMARY SHEET ITEM NUMBER 6

Land of the second second

#### III. Benefite and Costs

The following effects in decreasing winter peak kilowatt displacement and annual kilowatt hour consumption are expected when a customer installs an energy efficient gas appliance rather than a standard natural gas or electric model:

Acolinos Standard	High Efficiency	Savings per Year
Water Heater 300	225	75
Central Furnace 380	300	80
Renge 50	38	12
Diyer 54	40	14

Consumptions shown are average figures from customer accounts in our service area and agree with the present Conservation Program administered by West Florida Natural Gas Company since 1984.

It is anticipated that an individual customer who participates in this program can expect annual energy savings to be the sum of the values for the appliances listed above which he replaces. Company-wide projections for the program, as well as the accumulated demand and energy savings are shown on Attachment A-1.

The number of customers who have participated in this program in the past and projections for anticipated future participation are shown on Attachment A-2.

Based on historical participation as well as on projections of future participation.

first year costs are articipated as follows:

Per Customer \$.41 / 52,280 Total Customers

Administration \$6,000

#### **GAS APPLIANCE ENERGY SAVINGS PAYBACK PROGRAM**

#### I. Pregram Description:

The Gas Appliance Energy Savings Payback Program is designed to promote the replacement of standard gas appliances with energy efficient natural gas appliances and to ensure that new installations comply with the energy efficiency standards set forth in the Florida Energy Code. The program focuses on water heaters, central furnaces, ranges, and dryers. Monetary installation allowances are added to the program to encourage potential customers to install the more expensive energy efficient natural gas appliances rather than the standard natural gas or electric appliances.

#### II. Program Participation:

Any current or potential residential customer installing a water heater, central furnace, range, or dryer is eligible to participate in the program. The participant must install a new energy efficient natural gas appliance in place of a standard natural gas model or an electric unit within an existing residential dwelling. The participating customer will receive a monetary incentive to help defray the additional costs associated with gas piping, electrical wiring for pilotiess ignition units, and the special venting required to comply with the current Florida energy codes.

Customers who are eligible to participate in this program may also qualify for benefits from another program. The customer who is eligible under more than one conservation program will receive the benefits from each one under which he qualifies.

#### Revised

Incentives \$15,500

#### IV. Cost Effectiveness Methodology:

Based on the cost effectiveness methodology used in currently approved conservation programs, and using the assumptions listed, a benefit/cost ratio of 57.1 to 1 with a psyback period of .02 years will be achieved for the State of Florida. The retepsyers of West Florida Natural Gas Company will receive a benefit/cost ratio of 7.48 to 1 with a psyback period of .13 years. The cost effectiveness calculations follow Table A.2

#### V. Program Monitoring and Evaluation:

The progress of West Florids Natural Gas Company Gas Appliance Energy Savings Psyback Program is monitored monthly at both divisions of the company. The Panama City office also submits a semi-annual report to the Florida Public Service Commission for both divisions. Feedback from both divisions is constantly evaluated and any necessary revisions will be proposed to the program based upon these evaluations. Allowances paid to eligible participants under the program guidelines are based upon documentation and information necessary for Florida Public Service Commission audit purposes.

#### ATTACEMENT A - 1

## GAS ENERGY SAVINGS PAYBACK (ESP) PROGRAM

## PROJECTED FORECASTED CONSERVATION

AVOIDED	ANNUAL KWH REDUCTION
CAPACITI	KEDOCITOR
1,135	1,591,540
	1,687,032
	1,788,254
	1,895,550
	2,009,283
	2,129,840
	2,257,630
	2,393,088
	2,536,673
The state of the s	2,688,873
14,955	20,977,762
	1,135 1,203 1,275 1,351 1,432 1,518 1,609 1,706 1,808 1,917

ATTACHMENT A-1

## GAS EMERGY SAVINGS PAYBACK (ESP) PROGRAM

YEAR	PARTICIPANTS	# OF ACTUAL APPLIANCES	TO ELIGIBLE
1985	200,000	408	0.20%
1986	200,000	458	0.23%
1967	200,000	322	0.16%
1900	200,000	483	0.24%
1989	200,000	334	0.17%
1990 *	200,000	254	0.13%
1991	200,000	310	0.16%
1992	200,000	329	0.16%
1993	200,000	348	0.17%
1994	200,000	369	0.18%
1995	200,000	391	0.20%
1996	200,000	415	0.21%
1997	200,000	440	0.22%
1998	200,000	466	0.23%
1999	200,000	494	0.25%
2000	200,000	524	0.26%

# GAS APPLIANCE ENERGY SAVINGS PAYBACK (ESP) PROGRAM

## RESULTS FROM ALLOWANCE PROGRAM

# Estimated Gen Company Expanditures

	1. Personnel Costs	\$23,725
•	2. Advertising Costs	\$55,359
	3. Installation Allowances	\$204,302
y .	4. Total Costs	\$283,387
Reduc	5. Present Value of Total	\$179,927
15-50	G. KOV	14,954
	7. MWH	230,755
Estina	sed Electric Company Benefits	
	8. Construction Savings	\$14,164,432
	9. Fuel Purchase Savings	
All I	A OI	\$1,684,170
	B. Coal	\$2,685,222
7	10. Total Savings	\$18,533,824
Net Pr	seent Value of Total Program	
je i	11. Net Present Value	\$10,283,786
Net Be	nefits from Cumulative Totals	
·	Cal 11 - Cal 5	\$10,103,859

## Benefit/Cost Ratio from Cumulative Totals

Col 11 / Col 6

57.1 TO 1

## Discount Payback

Cal 5 / Cal 11 (Years)

0.02 YEARS

#### REVISED

#### LIST OF ASSUMPTIONS

# GAS APPLIANCE ENERGY SAVINGS PAYBACK (ESP) PROGRAM

1.	1991 Program Personnel Costs. Escalation Rate - Personnel Costs.	1,800 6.0%	
2	1991 Advertising Costs. Escalation Rate - Advertising Costs.	4,200 6.0%	
or ∞	Fuel Cost of Natural Gas 1991		/THERM
	Escalation Rate - Fuel Cost Natural Gas	3.0%	MR
4.	KWH Produced from Ton of Coel	2076	KWH
5.	KWH Produced from Barrel #8 Oil	. 613	KWH
<b>6</b>	Percentage Breekdown of Displaced Fuel from Reduced KWH Generation	19.6% 80.4%	OIL
7.	1991 Construction Cost per KW. (Pulverized Coal) Escalation Rate of Construction.	\$721 5.4%	/KW /YR
8.	KW is eliminated at the time of its deferral.		
9.	Average Allowance for Each Energy Efficient Appliance installed.	\$50	/APP
10.	Demand Displacement		
Ņ.	- Water Heating	.91	KW
	- Central Heating	7.50	KW
ŧ	- Range	NIL	
	- Dryer	NIL	
11.	Average Natural Gas Annual Therm Consumption per Installed Appliance	171	THERM

#### REVISED

	12	Period of	Appliance Use			10	YRS
X.	13.	Price of O	il per Berrel			\$20.50	
		Escalation				4.0%	/YR
	14.	Price of C	cel per Ton			\$42.00	
	(A)	Escalation	SECOND CONTRACTOR OF THE PROPERTY OF THE PROPE			3.0%	MR
ļ,	16.	Discount	Rate or Rate o	Time Preferen	100	10.45%	/TON
N	16.	Gen April	arres traisles	During Progra	em 1st Year		APPL.
		Escalation				6.0%	MR
	Ba a,		76		KW	KWH	Gas
	To the		Number	Allowance	Displaced	Avoided	Therms
	Water	Here	10	\$50	0.91	4500	225
	Centz	al History	150	50	7.50	9450	300
	Rang	1	£ 75	50	NIL	722	38
	Dryer	31,4.3	H- 75	50	NIL	1000	40
	*	Total	310				
		Weighted	Average Allov	vance	\$50		
,	(3)	Weighted	Average KW		3.66		
		Weighted	Average KWI	l -	5134		
		Water Street	Average Ther	ms Gas	171		

ı

## GAS ENERGY SAVINGS PAYBACK (ESP) PROGRAM

TABLE - 1 - PROGRAM COSTS

119 9	100			
YEAR	PERSONNEL COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
		**********		
S. V.				
1991	1,800	4,200	15,500	21,500
1992	1,908	4,452	16,430	22,790
1993	2,022	4,719	17,416	24,157
1994	2,144	5,002	18,461	25,607
1995	2,272	5,302	19,568	27,143
1996	2,409	5,621	20,742	28,772
1997	2,553	5,958	21,987	30,498
1996	2,707	6,315	23,306	32,328
1999	2,869	6,694	24,705	34,268
2000	3,041	7,096	26,187	36,324
ala s				
3400	23,725	55,359	204,302	283,387

STREET STREET ITEMS 1. 2. 3. AND 4.

TABLE - 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	TOTAL	DISCOUNT	PRESENT
1991	21,500	1.00000	21,500
1992	22,790	0.90539	20,634
1993	24,157	0.81973	19,803
1994	25,607	0.74217	19,005
1995	27,143	0.67195	18,239
1996	28,772	0.60838	17,504
1997	30,498	0.55081	16,799
1998	32,328	0.49870	16,122
1999	34,268	0.45152	15,473
2000	36,324	0.40880	14,849
TOTAL	4		179,927

SUDMARY SHEET ITEM 5

#### RESTRICT.

## GAS EMERGY SAVINGS PAYBACK (ESP) PROGRAM

TABLE - 3 - ESTIMATED NUMBER OF NATURAL GAS APPLIANCES INSTALLED

12.6			
F	APPLIANCES	TO/	KWH
YEAR	INSTALLED	DISPLACED	AVOIDED
1991	310	1,135	1,591,540
1992	329	1,203	1,687,032
1993	348	1,275	1,788,254
1994	369	1,351	1,895,550
1995	391	1,432	2,009,283
1996	415	1,518	2,129,840
1997	440	1,609	2,257,630
1998	466	1,706	2,393,088
1999	494	1,808	2,536,673
2000	524	1,917	2,688,873
- V.			
D 2700	4,086	14,954	20,977,763

#### REVISED

## GAS EMERGY SAVINGS PAYBACK (ESP) PROGRAM

TABLE - 4 - KW AVOIDANCE AND KWH REDUCTIONS FROM PROGRAM

3				
				MWH
YEAR	10 mg	338	KWH	CUMULATIVE
<b>建</b> 5年	-			
1991	1	135	1,591,540	1,592
1992		203	1,687,032	3,279
1993		275	1,788,254	5,067
1994		351	1,895,550	6,962
1995		432	2,009,283	8,972
1996	× 3	518	2,129,840	11,101
1997		609	2,257,630	13,359
1998		706	2,393,088	15,752
1999		808	2,536,673	18,289
2000		917	2,688,873	20,978
2001	17		2,000,012	20,978
2002	5.36			19,386
2003	25			17,699
2004	_08 × 4			15,911
2005	31			14,015
2006	5-7			12,006
The second secon				9,876
2007				7,619
2008				5,226
2009	-7.00			
2010	47.0			2,689
M.E.	22			230,755
nT·	)-E			32 10 10 10 10 10 10 10 10 10 10 10 10 10

SUMMARY SHEET ITEM 7

TABLE - 5 - TOTAL CONSTRUCTION COSTS DEFERRED

YEAR	DEFERRED	COSTS PER	TOTAL CONSTRUCTION COSTS DEFERRED
			*********
1991	1,135	721	818,335
1992	1,203	760	914,201
1993	1,275	801	1,021,237
1994	1,351	844	1,140,545
1995	1,432	890	1,274,209
1996	1,518	938	1,423,672
1997	1,609	989	1,590,505
1998	1,706	1,042	1,777,455
1999	1,808	1,098	1,985,448
2000	1,917	1,157	2,218,824
7000			
	10		14,164,432
200			

SUBSCRIPT SHEET ITEM &

## GAS ENERGY SAVINGS PAYBACK (ESP) PROGRAM

FUEL SAVINGS - OIL

YEAR	REDUCED	19.68 OIL	RW/BBL	\$/BBL	AVOIDED COSTS
1991	1,591,540	311,942	613	20.50	10 422
1992	3,278,572				10,432
		642,600	613	21.32	22,349
1993	5,066,826	993,098	613	22.17	35,921
1994	6,962,376		613	23.06	51,334
1995	8,971,659	1,758,445	613	23.98	68,795
1996	11,101,499	2,175,894	613	24.94	88,531
1997	13,359,129	2,618,389	613	25.94	110,797
1998	15,752,217	3,087,435	613	26.98	135,870
1999	18,288,890	3,584,622	613	28.06	164,060
2000	20,977,763	4,111,642	613	29.18	195,708
2001	20,977,763	4,111,642	613	30.35	203,536
2002	19,386,223	3,799,700	613	31.56	195,618
2003	17,699,191	Control of the Contro	613	32.82	185,739
2004	15,910,937	3,118,544	613	74.13	173,652
2005	14,015,387	2,747,016	613	J5.50	159,082
2006	12,006,104	2,353,196	613	36.92	141,727
2007	9,876,264	1,935,748	613	38.40	121,248
2008					
	7,618,634		613	39.93	97,273
2009	5,225,546	1,024,207	613	41.53	69,388
2010	2,688,873	527,019	613	43.19	37,132
TOTAL	1 of Bearing				2,268,194

#### FUEL SAVINGS - COAL

YEAR	REDUCED	80.48 COAL	KW/TON	\$/TOM	AVOIDED
28 2					
1991	1,591,540	1,279,598	2,076	42.00	25,888
1992	3,278,572	2,635,972	2,076	43.26	54,929
1993	5,066,826	4,073,728	2,076	44.56	87,436
1994	6,962,376	5,597,750	2,076	45.89	123,751
1995	8,971,659	7,213,214	2,076	47.27	164,248
1996	11,101,499	8,925,605	2,076	48.69	209,337
1997	13,359,129	10,740,740	2,076	50.15	259,465
1998	15,752,217	12,664,782	2,076	51.65	315,123
1999	18,288,890	14,704,268	2,076	53.20	376,845
2000	20,977,763	16,866,121	2,076	54.80	445,217
2001	20,977,763	16,866,121	2,076	56.44	458,574
2002	19,386,223	15,586,523	2,076	58.14	436,496
2003	17,699,191	14,230,150	2,076	59.88	410,467
2004	15,910,937	12,792,393	2,076	61.68	380,065
2005	14,015,387	11,268,371	2,076	63.53	344,829
2006	12,006,104	9,652,908	2,076	65.43	304,256
2007	9,876,264	7,940,516	2,076	67.40	257,790
2008	7,618,634	6,125,382	2,076	69.42	204,827
2009	5,225,546	4,201,339	2,076	71.50	144,704
2010	2,688,873	2,161,854	2,076	73.65	76,693
TOTAL					5.080.940

#### DEVISED

## GAS ENERGY SAVINGS PAYBACK (ESP) PROGRAM

# ANNUAL FUEL CONSUMPTION - NATURAL GAS

YEAR	THERMS	THERMS	\$/THERM	TOTAL COSTS
1991	53,010	53,010	0.2864	15,182
1992	56,191	109,201	0.2950	32,213
1993	59,562	168,763	0.3038	51,277
1994	63,136	231,898	0.3130	72,574
1995	66,924	298,822	0.3223	96,324
1996	70,939	369,762	0.3320	122,767
1997	75,196	444,957	0.3420	152,165
1998	79,707	524,665	0.3522	184,806
1999	84,490	609,155	0.3628	221,003
2000	89,559	698,714	0.3737	261,100
2001	1/2	698,714	0.3849	268,933
2002	41	645,704	0.3964	255,986
2003	100	589,513	0.4083	240,721
2004	15.00	529,951	0.4206	222,891
2008		466,816	0.4332	202,227
2006	Cirio	399,892	0.4462	178,432
2007		328,952	0.4596	151,183
2008	0. 1.00	253,757	0.4734	120,122
2009	100000	174,049	0.4876	84,862
2010		89,559	0.5022	44,977

## NATURAL GAS FUEL COST - DISPLACEMENT DISTRIBUTION

10 miles 10	A Company of the Comp		
YEAR	GAS COST	19.68 OIL	80.48 COAL
			10.000
1991	15,182	2,976	12,206
1992	32,213	6,314	25,899
1993	51,277	10,050	41,227
1994	72,574	14,225	58,350
1995	96,324	18,880	77,445
1996	122,767	24,062	98,705
1997	152,165	29,824	122,341
1998	184.806	36,222	148,584
1999	221,003	43,317	177,686
2000	261,100	51,176	209,925
2001	268,933	52,711	216,222
2002	255,984	50,173	205,813
2003	240,721	47,181	193,539
2004	222,891	43,687	179,205
2005	202,227	39,637	162,591
2006	178,432	34,973	143,460
2007	151,183	29,632	121,551
2008	120,122	23,544	96,578
2009	84,862	16,633	68,229
2010	44,977	8,815	36,162
TOTAL	44	584,030	2,395,716

#### PEVISED

# GAS ENERGY SAVINGS PAYBACK (ESP) PROGRAM

TABLE - 6 - FUEL SAVINGS OIL

THE STATE OF	AVOIDED OIL COSTS	GAS COSTS	Fuel Savings
* A (1)			
1991	10,432	2,976	7,456
1992	22,349	6,314	16,035
1993	35,921	10,050	25,871
1994	51,334	14,225	37,109
1995	68,795	18,880	49,915
1996	88,531	24,062	64.469
1997	110,797	29,824	80,973
1998	135,870	36,222	99,648
1999	164,060	43,317	120,743
2000	195,708	51,176	144,532
2001	203,536	52,711	150,825
2002	195,618	50,173	145,445
2003	185,739	47,181	138,558
2004	173,652	43,687	129,965
2005	159,082	39,637	119,445
2006	141,737	34,973	106,764
2007	121,248	29,632	91,616
2008	97,273		
2009		23,544	73,729
	69,388	16,633	52,755
2010	37,132	8,815	28,317
All a line			1,684,170
the state of the			2,004,170

SUBMARY SHEET TYPE OF

#### DEVISED

#### GAS EMERGY SAVINGS PAYBACK (ESP) PROGRAM

TABLE - 7 - FUEL SAVINGS COAL

YEAR .	AVOIDED OIL COSTS	GAS COSTS	Puel Savings
1991	25,888	12,206	13,682
1992	54,929	25,899	29,030
1993	87,436	41,227	46,209
1994	123,751	58,350	65,401
1995	164,248	77,445	86,803
1996	209,337	98,705	110,632
1997	259,465	122,341	137,124
1998	315, 123	148,584	166,539
1999	376,845	177,686	199,159
2000	445,217	209,925	235,292
2001	458,574	216,222	242,352
2002	436,496	205,813	230,683
2003	410,467	193,539	216,928
2004	380,065	179,205	200,860
2005	344,829	162,591	182,238
2006	304,256	143,460	160,796
2007	257,790	121,551	136,239
2008	204,827	96,578	108,249
2009	144,704	68,229	76,475
2010	76,693	36,162	40,531
الشود وقيلية	- H		~
No.	· ·	2,395,718	2,685,222

SIRGIARY SHEET ITEM OR

TABLE - 8 - TOTAL SAVINGS

TEAR	COMSTRUCTION	SAVINGS	COAL	TOTAL SAVINGS
1991	918,335	7,456	13,682	839,473
1992	914,201	16,035	29,030	959,266
1993	1,021,237	25,871	46,209	1,093,317
1994	1,140,545	37,109	65,401	1,243,055
1995	1,274,209	49,915	86,803	1,410,927
1996	1,423,672	64,469	110,632	1,598,773
1997	1,590,505	80,973	137,124	1,808,602
1998	1,777,455	99,648	166,539	2,043,642
1999	1,985,448	120,743	199,159	2,305,350
2000	2,218,824	144,532	235,292	2,598,648
2001	C. C	150,825	242,352	393,177
2002	13.85	145,445	230,683	376,128
2003	3	138,558	216,928	355,486
2004		129,965	200,860	330,825
2005	100	119,445	182,238	301,683
	45.			267,560
2006		106,764	160,796	
2007	2.0	91,616	136,239	227,855
2008	Service Service	73,729	108,249	181,978
2009	47.00	52,755	76,475	129,230
2010	4 A	28,317	40,532	68,849

## TABLE - 9 - NET PRESENT VALUE OF TOTAL PROGRAM

YEAR	TOTAL	DISCOUNT RATE	PRESENT VALUE
1001	220 422	1 0000	939 473
1991	839,473 959,266	1.0000	839,473 868,519
1993		0.8197	Yes as a second
2221	1,093,317	0.7422	896,192
1994	1,243,055		922,595
1995	1,410,927	0.6720	948,143
1996	1,598,773	0.6084	972,693
1997	1,808,602	0.5508	996,178
1998	2,043,642	0.4987	1,019,164
1999	2,305,350	0.4515	1,040,866
3000	2,598,648	0.4088	1,062,327
2001	393,177	0.3701	145,515
2002	376,128	0.3351	126,040
2003	355,486	0.3034	107,854
2004	330,825	0.2747	90,878
2005	301,683	0.2487	75,029
2006	267,560	0.2252	60,255
2007	227,855	0.2039	46,460
2008	181,978	0.1846	33,593
2009	129,230	0.1671	21,594
3010	68,849	0.1513	10,417
TOTAL			10,283,786
7776-67			The state of the s

WEST FLORIDA NATURAL GAS RATEPAYER BENEFITS
GAS ENERGY SAVINGS PAYBACK (ESP) PROGRAM

#### REVISED

## WEST FLORIDA NATURAL GAS RATEPAYER BENEFITS

# GAS APPLIANCE ENERGY SAVINGS PAYBACK (ESP) PROGRAM

## Results from Allowance Program

## Estimated Gas Company Expanditures

1. Personnel Costs	\$23,725
2. Advertising Costs	\$55,359
3. Installation Allowances	\$204,302
4. Total Costs	\$283,387
5. Present Value of Total Costs	\$179,926
Present Value of Total Program Benefits	
6. Present Value Benefits	\$1,345,782
7. Present Value of Total Costs	\$179,926
8. Line 6 - Line 7	\$1,165,836
Benefit/Cost Ratio from Cumulative Totals	
Line 6 / Line 7	7.48 TO 1
Discount Payback	
Line 7 / Line 6 (Years)	.13 YRS

## REVISED

# GAS RATEPAYERS COST EFFECTIVENESS ANALYSIS

# LIST OF ASSUMPTIONS

# GAS APPLIANCE ENERGY SAVINGS PAYBACK (ESP) PROGRAM

	1000 E-1-1-1-E-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
1.	1991 Program Personnel Costs Escalation Rate - Personnel Costs	\$1,800 /YR 6.0% /YR
2	1991 Advertising Costs Escalation Rate - Advertising Costs	\$4,200 /YR 6.0% /YR
3.	Applicable Non-Gas Energy Charge Escalation Rate - Non-Gas Energy Charge	\$0.3026 /THERM 0.0% /YR
5.	Average Natural Gas Annual Therm Consumption per Installed Appliance	171 THERM
e.	Period of Applience Use	10 YEARS
7.	Discount Rate or Rate of Time Preference	10.45% /YR
	Appliances Installed During Program 1ST Year Escalation Rate	310 6.0% /YR
9.	Average Allowance per Customer	\$50
10.	Demand Charges (\$/TH)	\$0.02284
11.	Monthly Service Charge	\$6
12	Heat Only Disconnect Period (Months)	6
13.	Cost to Cap Service at Main Escalation Rate	\$125 3.0%
14.	Cost to Run Service from Main/Set Regulator and Meter Cost to Set Regulator and Meter Only Escalation Rate	\$375 \$120 3.0%

15. Installation Distribution:
Heat Only
Reactivate
New on Main
Actived Load

0.0% 0.0% 0.0% 0.0%

#### REVISED

#### NUMBER OF APPLIANCES INSTALLED

	PLIANCES STALLED	APPLIANCES IN SERVICE
1991	310	310
1992	329	639
1993	348	987
1994	369	1,356
1995	391	1,747
1996	415	2,162
1997	440	2,602
1998	466	3,068
1999	494	3,562
2000	524	4,086
TOTAL -	4,086	

#### TABLE 1 - PROGRAM COSTS

TOTAL
21,500
22,790
24,157
25,607
27,143
28,772
30,498
32,328
34,268
36,324
283,387

SUMMARY SHEET ITEMS 1. 2. 3 AND 4

REVISED
TABLE 2 - PRESENT VALUE OF TOTAL COSTS

YRAR	TOTAL	DISCOUNT FACTOR	PRESENT VALUE
1991	21,500	1.00000	21,500
1992	22,790	0.90539	20,634
1993	24,157	0.81973	19,802
1994	25,607	0.74217	19,005
1995	27,143	0.67195	18,239
1996	28,772	0.60838	17,504
1997	30,498	0.55081	16,799
1998	32,328	0.49870	16,122
1999	34,268	0.45152	15,473
2000	36,324	0.40880	14,849
TOTAL	283,387		179,926

#### SUDGARY SHEET ITEM 5

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TABLE 3 - ESTIMATED NUMBER OF THERMS ADDED

YEAR .	THERMS ADDED	CUMULATIVE	GROSS MARGIN	"A" TOTAL MARGIN
1991	53,010	53,010	0.2648	14,039
1992	56,191	109,201	0.2648	28,921
1993	59,562	168,763	0.2648	44,695
1994	63,136	231,898	0.2648	61,416
1995	66,924	298,822	0.2648	79,140
1996	70,939	369,762	0.2648	97,928
1997	75,196	444,957	0.2648	117,843
1998	79,707	524,665	0.2648	138,952
1999	84,490	609,155	0.2648	161,329
2000	89,559	698,714	0.2648	185,047
2001	22,522	698,714	0.2648	185,047
2002		698,714	0.2648	185,047
2003		698,714	0.2648	185,047
2004	4	698,714	0.2648	185,047
2005		698,714	0.2648	185,047
2006		698,714	0.2648	185,047
2007		698,714	0.2648	185,047
2008		698,714	0.2648	185,047
2009		698,714	0.2648	185,047
2010		698,714	0.2648	185,047
2011		698,714	0.2648	185,047
TOTAL	690,714			2,964,831

NEW SERVICE & METER SETS
TABLE 4 - OPERATING COSTS & SAVINGS

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	7	CUT & CAP	*8*
YEAR	COSTS	SAVINGS	net
1991	0	0	0
1992	b = 0 %	0	0
1993	0	0	0
1994	0 2	0	0
1995	0	0	0
1996	0	0	0
1997	. 0	0	0
1998	0	0	0
1999	0	0	0
2000	0	0	0
TOTAL	. 0	0	0

TABLE 5 - DEMAND DISPLACEMENT CHARGES AND CUSTOMER SERVICE CHARGES

YEAR	APPLIANCE IN SERVICE	DEMAND DISPLACE	CUST SERVICE CHARGE	TOTAL CONTRIB.
1991	310	1,211	22,320	23,531
1992			The same of the sa	The same of the sa
and the second	639	2,496	22,990	25,485
1993	987	3,855	23,679	27,534
1994	1,356	5,296	24,390	29,686
1995	1,747	6,823	25,121	31,945
1996	2,162	8,444	25,875	34,319
1997	2,602	10,162	26,651	36,814
1996	3,068	11,983	27,451	39,433
1999	3,562	13,912	28,274	42,186
2000	4,086	15,958	29,123	45,081
2001	4,086	15,958	36,168	52,126
2002	4,086	15,958	36,168	52,126
2003	4,086	15,958	36,168	52,126
2004	4.086	15,958	36,168	52,126
2005	4,086	15,958	36,168	52,126
2006	4,086	15,958	36,168	52,126
2007	4,086	15,958	36,168	52,126
2008	4,006	15,958	36,168	52,126
and the second s	4,086	15,958	36,168	52,126
2010	4,086	15,958	36,168	52,126
2011	4,086	15,958	36,168	52,126
TOTAL		255,683	653,722	909,405

#### REVISED

TABLE 6 - PRESENT VALUE OF TOTAL PROGRAM

1988	(A + B + C) TOTAL CONTRIB.	DISCOUNT	PRESENT VALUE
1991	37,570	1.00000	37,570
1992	54,406	0.90539	49,259
1993	72,229	0.81973	59,208
1994	91,102	0.74217	67,613
1995	111,085	0.67195	74,643
1996	132,247	0.60838	80,456
1997	154,657	0.55081	85,186
1998	178,385	0.49870	88,961
1999	203,515	0.45152	91,891
2000	230,128	0.40880	94,076
2001	237,173	0.37012	87,783
2002	237,173	0.33510	79,477
2003	237,173	0.30340	71,958
2004	237,173	0.27469	65,149
2005	237,173	0.24870	58,985
2006	237,173	0.22517	53,404
2007	237,173	0.20387	48,353
2008	237,173	0.18458	43,777
2009	237,173	0.16712	39,636
2010	237,173	0.15130	35,884
2011	237,173	0.13699	32,490
TOTAL *	3,874,232		1,345,762

SUMMARY SHEET ITEM NUMBER 6

#### L. Program Concription

The Gas Water Heater Load Retention Program is designed to urge the continued use of natural gas water heaters, effectively reducing conversions from natural gas to electricity. Past tendencies, often under emergency situations, such as leaking or inoperative equipment, have been to make a quick fix by replacing an existing natural gas water heater with an electric model because of lower initial costs and easier installation. When these electric models are installed, efforts designed to reduce electric consumption and KW demand are circumvented. This program promotes the efficiencies of natural gas and supports the conservation of petroleum fuels, KWH consumption and KW demand.

This program is specifically aimed at residential gas water heater installations because water heaters are generally the greatest energy user in the home on a year around basis. By providing incentives to keep this appliance in place, the program keeps the customer using natural gas for water heating instead of changing to electricity.

## II. Program Participation Standards

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Any current customer using natural gas for residential water heating is eligible to participate in the program when he replaces an existing natural gas water heater with an energy efficient natural gas water heater. The allowance paid to the participant is designed to help defray the higher purchase cost associated with gas water heaters and

generally higher installation cost over equivalent electric water heaters.

#### Allowances under the program are as follows:

YEAR	WATER HEATER
1980	* 0
1991	100
1992	100
1993	100
1994	100

## III. Benefits and Costs

The following effect in winter peak KWD and annual KWH consumptions is expected to continue with the retention of gas water heater load:

Each Water Heater

.91KWD

4,500 KWH

Projections of the customers expected to utilize the program and the demand and energy saving associated are shown on Table A-1.

Projections of new participants in this program are shown on Table A-2.

Based on projections of customers expected to participate in the program, first year costs are anticipated as follows:

Per customer

\$.84/52,260 Total Customers

Administrative

\$12,155.00

Incentives

\$31,500.00

#### N. Cost Effectiveness Methodology

Second on the cost effectiveness methodology used in currently approved conservation programs and using the assumptions listed, a benefit/cost ratio of 7.14 to 1 with a psyback period of .14 years will be achieved for the State of Florida. The ratepayers of West Florida Natural Gas Company will receive a benefit/cost ratio of 5.32 to 1 with a psyback period of .19 years.

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#### V. Program Monitoring and Evaluation

The progress of the West Florida Natural Gas Gas Water Hester Load Retention Progrem will be monitored monthly at both divisions of the company. The Panama City office will also submit a semi-annual report to the Florida Public Service Commission for both divisions. Feedback received from both divisions will be constantly evaluated, and any revisions will be proposed to the program based upon these evaluations. Allowances paid under the program guidelines are based upon documentation and information necessary for Florida Public Service Commission audit purposes.

#### ATTACIDIENT A - 1

#### GAS WATER HEATER LOAD RETENTION PROGRAM

#### PROJECTED PORECASTED CONSERVATION

YEAR	AVOIDED	ANNUAL KWH REDUCTION
	*******	
1991	287	1,417,500
1992	295	1,460,025
1993	304	1,503,826
1994	313	1,548,941
1995	323	1,595,409
1996	332	1,643,271
1997	342	1,692,569
1998	353	1,743,346
1999	363	1,795,647
2000	374	1,849,516
A PARTY OF THE PAR		
TOTAL	3,286	16,250,049

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ATTACEMENT A-2

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## GAS WATER HEATER LOAD RETENTION PROGRAM

YEAR	OF ELIGIBLE	OF ACTUAL PART	to ELIGIBLE
1985			
1986 1987			
1989 1990	%.		
1991	52,260	315	0.60%
1992	52,783	324	0.61%
1993	53,310	334	0.63%
1994	53,844	344	0.64%
1995	a / 54,382	355	0.65%
1996	54,926	365	0.66%
1997	55,475	376	0.68%
1998	56,030	387	0.69%
1999	56,590	399	0.71%
2000	57,156	411	0.72%

# GAS WATER HEATER LOAD RETENTION PROGRAM RESULTS FROM ALLOWANCE PROGRAM

# Estimated Gas Company Expanditures

9 1. Personnel Costs	\$77,954
2. Advertising Costs	\$61,389
3. Installation Allowances	\$361,112
4. Total Costs	\$500,456
5. Present Value of Total	\$325,280
Packacillons	
C. KW	3,296
7. MWH	176,901
Estimated Electric Company Benefits	
MANUFACTOR & Construction Savings	\$3,075,104
9. Fuel Purchase Savings	
A. OI	\$841,790
B. Coal	\$219,852
10. Total Savings	\$4,136,746
Net Present Value of Total Program	
11. Net Present Value	\$2,321,010
Net Benefite from Cumulative Totals	
Cal 11 - Cal 5	\$1,995,730

#### Benefit/Cost Ratio from Cumulative Totals

Col 11 / Col 5 7.14 TO 1

Discount Payback

Col 5 / Col 11 (Years) .14 YRS

# LIST OF ASSUMPTIONS

# GAS WATER HEATER LOAD RETENTION PROGRAM

75			
1.	1991 Program Personnel Costs. Escalation Rate - Personnel Costs.	6,800 3.0%	3
2	1981 Advertising Costs. Escalation Rate - Advertising Costs.	5,355 3.0%	
<b>3</b> 34	Fuel Cost of Natural Gas 1991. Escalation Rate - Fuel Cost Natural Gas	\$0.2864 3.0%	and the second second
	KWH Produced from Ton of Cost.	2076	кwн
	KMH Produced from Berrel #6 OIL	613	кwн
•	Percentage Breakdown of Displaced Fuel From Reduced KWH Generation.	19.6% 80.4%	OIL COAL
7.	1991 Construction Cost per IOV. (Pulverized Cost) Escalation Rate of Construction.	\$721 5.4%	/KW /YR
	Treatment of Deferred ICW - It is treated as being eliminated at the time of its deferral.		
	Allowance per Customer Toward Installation of Natural Gas Water Heater on a per Unit Basis. Average KWH for Water Heater Being Replaced	\$100.00 4,500	/WH KWH/WH
10.	Demand Displacement (Winter) and Summer Peak.	0.91	KW
11.	Annual KWH Reductions 1st Year	1,417,500	KWH
12.	Estimated Annual Hours of Operation. (Electric)	1560	HRS/YR
13.	Estimated Percent of Full Load on Time (Electric)	18%	ON
14.	Natural Gas Annual Therm Consumption per Installation	300	THERM
15.	Period of Appliance Use.	10	YRS

16.	Water Hea Escalation	Rete	During Prog	ram 1st Year		315 3.0%	UNITS /YR
17.		per Berrel				\$20.50	
18.	Escalation Price of C Escalation	cel per Ton				4.0% \$42.00 3.0%	/TON
18.	Discount I	Nate or Rate of	Time Prefere	ince		10.45%	/YR
20.	Water Her	itera Displaced	During Prog	ram Life			
1991	315	1995	355	1999	399		
1992	324	1998	365	2000	411		
1993	334	1997	376				
1004	8 6	1000	267				

TABLE - 1 - PROGRAM COSTS

YEAR	PERSONNEL COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	6,800 7,004 7,214 7,431 7,653 7,863 8,120 8,363 8,614 8,872	5,355 5,516 5,661 5,652 6,027 6,208 6,394 6,586 6,784 6,987	31,500 32,445 33,418 34,421 35,454 36,517 37,613 38,741 39,903 41,100	43,655 44,965 46,314 47,703 49,134 50,608 52,126 53,690 55,301 56,960
1	77,954	61,389	361,112	500,456

SUMMARY SHEET ITEMS 1, 2, 3, AND 4.

TABLE - 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	TOTAL	DISCOURT FACTOR	PRESENT
1991	43,655	1.00000	43,655
1992	44,965	0.90539	40,711
1993	46,314	0.81973	37,965
1994	47,703	0.74217	35,404
1995	49,134	0.67195	33,016
1996	50,608	0.60838	30,789
1997	52,126	0.55081	28,712
1998	53,690	0.49870	26,775
1999	55,301	0.45152	24,969
2000	56,960	0.40880	23,285 325,280

SUMMARY SHEET ITEM 5

TABLE - 3 - ESTIMATED INSTALLATIONS OF WATURAL GAS WATER HEATERS

THE TOTAL	WATER HEATERS RETAINED	DISPLACED	KWH AVOIDED
1991	315	287	1,417,500
1992	324	295	1,460,025
1993	334	304	1,503,826
1994	344	313	1,548,941
1995	355	323	1,595,409
1996	365	332	1,643,271
1997	376	342	1,692,569
1998	387	353	1,743,346
1999	399	363	1,795,647
2000	411	374	1,849,516
A STATE OF THE STA			
& Code:	3.611	3.286	16,250,049

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TABLE - 4 - NN AVOIDANCE AND KMH REDUCTIONS FROM PROGRAM

YEAR		KWH	MOTH CUMULATIVE
1991 1992 1993 1994 1995 1996 1997 1998 2000 2001 2002 2002 2003 2004 2005	287 295 304 313 323 332 342 353 363 374	1,417,500 1,460,025 1,503,826 1,548,941 1,595,409 1,643,271 1,692,569 1,743,346 1,795,647 1,849,516	1,418 2,878 4,381 5,930 7,526 9,169 10,862 12,605 14,401 16,250 16,250 14,833 13,373 11,869 10,320
2006 2007 2008 2009 2010			8,724 7,081 5,389 3,645 1,850
34.430	* <sup>14</sup>		176,901

SUMMARY SHEET ITEMS 6 AND 7.

TABLE - 5 - TOTAL CONSTRUCTION COSTS DEFERRED

287 295 304 313 323 332 342 353 363 374	721 760 801 844 890 938 989 1,042 1,098 1,157	206,675 224,370 243,581 264,436 287,077 311,657 338,341 367,309 398,758 432,900
	353 363	353 1,042 363 1,098

SUDMARY SHEET ITEM &

#### FUEL SAVINGS - OIL

YEAR	BEDUCED	19.64 OIL	KW/BBL	\$/BBL	AVOIDED
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	1,417,500 2,877,525 4,381,351 5,930,292 7,525,701 9,168,972 10,861,541 12,604,867 14,400,534 16,250,050 16,250,050 14,832,550 13,372,525 11,868,699 10,319,758 8,724,349 7,081,078 5,388,509 3,645,163	277,830 563,995 858,745 1,162,337 1,475,037 1,797,119 2,128,862 2,470,558 2,822,505 3,185,010 3,185,010 2,907,180 2,621,015 2,326,265 2,022,673 1,709,972 1,387,891 1,056,148 714,452	613 613 613 613 613 613 613 613 613 613	20.50 21.32 22.17 23.06 23.98 24.94 25.94 26.98 28.06 29.18 30.35 31.56 32.82 34.13 35.50 36.92 38.40 39.93 41.53 43.19	9,291 19,616 31,062 43,725 57,707 73,120 90,083 108,723 129,180 151,602 157,666 149,669 140,334 129,535 117,135 102,987 86,933 68,799 48,402 25,541
2010 TOTAL	1,849,516	362,505	613		1,741,108

## FUEL SAVINGS - COAL

YEAR	REDUCED	COAL	EW/TOM	\$/TON	AVOIDED
1991	1,417,500	1,139,670	2,076	42.00	23,057
1992	2,877,525	2,313,530	2,076	43.26	48,210
1993	4,381,351	3,522,606	2,076	44.56	75,607
1994	5,930,292	4,767,955	2,076	45.89	105,406
1995	7,525,701	6,050,664	2,076	47.27	137,776
1996	9,168,972	7,371,853	2,076	48.69	172,896
1997	10,861,541	8,732,679	2,076	50.15	210,955
1998	12,604,887	10,134,329	2,076	51.65	252,161
1999	14,400,534	11,578,029	2,076	53.20	296,725
2000	16,250,050	13,065,040	2,076	54.80	344,880
2001	16,250,050	13,065,040	2,076	56.44	355,226
2002	14,832,550	11,925,370	2,076	58.14	333,967
2003	13,372,525	10,751,510	2,076	59.88	310,126
2004	11,868,699	9,542,434	2,076	61.68	283,508
2005	10,319,758	8,297,085	2,076	63.53	253,903
2006	8,724,349	7,014,377	2,076	65.43	221,090
2007	7,081,078	5,693,187	2,076	67.40	184,830
2008	5,388,509	4,332,361	2,076	69.42	144,870
2009	3,645,163	2,930,711	2,076	71.50	100,940
2010	1,849,516	1,487,011	2,076	73.65	52,753
TOTAL					3,908,887

## ANNUAL FUEL CONSUMPTION - NATURAL GAS

1 to 1				
YEAR	CONSTREED	THERMS CUMULATIVE	\$/THERM	TOTAL COSTS
1991	94,500	94,500	0.2864	27,065
1992	97,335	191,835	0.2950	56,590
1993	100,255	292,090	0.3038	88,749
1994	103,263	395,353	0.3130	123,728
1995	106,361	501,713	0.3223	161,725
1996	109,551	611,265	0.3320	202,950
1997	112,838	724,103	0.3420	247,626
1998	116,223	840,326	0.3522	295,993
1999	119,710	960,036	. 0.3628	348,304
2000	123,301	1,083,337	0.3737	404,829
2001		1,083,337	0.3849	416,974
2002		988,837	0.3964	392,019
2003	-	891,502	0.4083	364,034
2004	A Lie P	791,247	0.4206	332,789
2005	₩* 90 °	687,984	0.4332	298,039
2006		581,624	0.4462	259,522
2007	h.ja	472,072	0.4596	216,959
2008	57	359,234	0.4734	170,053
2009		243,011	0.4876	118,487
2010		123,301	0.5022	61,923

#### MATURAL GAS FUEL COST - DISPLACEMENT DISTRIBUTION

YEAR	GAS COST	19.6% OIL	80.48 COAL
1991	27,065	5,305	21,760
1992	56,590	11,092	45,498
1993	88,749	17,395	71,354
1994	123,728	24,251	99,478
1995	161,725	31,698	130,027
1996	202,950	39,778	163,172
1997	247,626	48,535	199,091
1998	295,993	58,015	237,978
1999	348,304	68,268	280,036
2000	404,829	79,346	325,482
2001	416,974	81,727	335,247
2002	392,019	76,836	315,183
2003	364,034	71,351	292,683
3004	332,789	65,227	267,562
2005	298,039	50,416	239,623
2006	259,522	50,866	208,655
2007	216,959	42,524	174,435
2008	170,053	33,330	136,722
2010	61,923	23,223 12,137	95,263 49,786
TOTAL		899,318	3,689,038

TABLE - 6 - FUEL SAVINGS OIL

Control of the Contro			
YEAR	AVOIDED	GAS	Fuel
	OIL COSTS	COSTS	Savings
1991	9,291	5,305	3,986
1992	19,616	11,092	8,524
1993	31,062	17,395	13,667
1994	43,725	24,251	19,474
1995	57,707	31,698	26,009
1996	73,120	39,778	33,342
1997	90,083	48,535	41,548
1998	108,723	58,015	50,708
1999	129,180	68,268	60,912
2000	151,602	79,346	72,256
2001	157,666	81,727	75,939
2002	149,669	76,836	72,833
2003	140,334	71,351	68,983
2004	129,535	65,227	64,308
2005	117,135	58,416	58,719
2006	102,987	50,866	52,121
2007	86,933	42,524	44,409
2008	68,799	33,330	35,469
2009	48,402	23,223	25,179
2010	25,541	12,137	13,404
	CALL TO A SALE	n.	841,790

SUDGLARY SHEET ITEM 9A

THE REAL PROPERTY.

Language of the second second

TABLE - 7 - FUEL SAVINGS COAL

YEAR	OIL COSTS	COSTS	FUEL SAVINGS
1991	23,057	21,760	1,297
1992	48,210	45,498	2,712
1993	75,607	71,354	4,253
1994	105,406	99,478	5,926
1995	137,776	130,027	7,749
1996	172,896	163,172	9,724
1997	210,956	199,091	11,865
1998	252,161	237,978	14,183
1999	296,725	280,036	16,689
2000	344,880	325,482	19,398
2001	355,226	335,247	19,979
2002	333,967	315,183	18,784
2003	310,126	292,683	17,443
2004	283,508	267,562	15,946
2005	253,903	239,623	14,280
2006	221,090	208,655	12,435
2007	184,830	174,435	10,395
2008	144,870	136,722	8,148
2009	100,940	95,263	5,677
2010	52,753	49,786	2,967
	32,133	457700	
Sec. 16.			219,852

SUMMARY SHEET ITEM 98

TABLE - 8 - TOTAL SAVINGS

TEAR	CONSTRUCTION	OIL SAVINGS	COAL SAVINGS	TOTAL SAVINGS
	******			
1991	206,675	3,986	1,297	211,958
1993	224,370	8,524	2,712	235,606
1993	243,581	13,667	4,253	261,501
1994	264,436	19,474	5,928	289,838
1995	287,077	26,009	7,749	320,835
1996	311,657	33,342	9,724	354,723
1997	338,341	41,548	11,865	391,754
1996	367,309	50,708	14,183	432,200
1999	398,758	60,912	16,689	476,359
2000	432,900	72,256	19,398	524,554
2001		75,939	19,979	95,918
2002		72,833	18,784	91,617
2003		68,983	17,443	86,426
2004	Program.	64,308	15,946	80,254
2005		58,719	14,280	72,999
2006		52,121	12,435	64,556
2007		44,409	10,395	54,804
2008		35,469	8,148	43,617
2009		25,179	5,677	30,856
2010		13,404	2,967	16,371

## TABLE - 9 - WET PRESENT VALUE OF TOTAL PROGRAM

Today of the same			
YEAR	TOTAL	DISCOUNT RATE	PRESENT
1991	211,958	1.0000	211,958
1992	235,606	0.9054	213,318
1993	261,501	0.8197	214,352
1994	289,638	0.7422	215,118
1995	320,835	0.6720	215,601
1996	354,723	0.6084	215,813
1997	391,754	0.5508	215,778
1998	432,200	0.4987	215,538
1999	476,359	0.4515	215,076
2000	524,554	0.4088	214,438
2001	95,918	0.3701	35,499
2002	91,617	0.3351	30,701
2003	86,426	0.3034	26,222
2004	80,254	0.2747	22,046
2005	72,999	0.2487	18,155
2006	64,556	0.2252	14,538
2007	54,804	0.2039	11,175
2008	49 617	0.1846	8,052
2009	30,856	0.1671	5,156
2010	16,371	0.1513	2,477
	,	0.2525	
TOTAL			2,321,010

WEST FLORIDA NATURAL GAS COMPANY - RATEPAYER BENEFITS

GAS WATER HEATER LOAD RETENTION PROGRAM

# WEST FLORIDA NATURAL GAS COMPANY - RATE PAYER BENEFITS

# GAS WATER HEATER LOAD RETENTION PROGRAM

# **Results from Allowance Program**

# Estimated Gas Company Expenditures

	1. Personnel Costs	\$77,954
<b>5</b> 衛士 11	2. Advertising Costs	\$61,389
	3. Installation Allowences	\$361,112
4 4 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4. Total Costs	\$500,456
\$ <b>.</b>	5. Present Value of Total Cost	\$325,280
Press	nt Velue of Total Program Benefits	
	6. Present Value Benefits	\$1,731,889
	7. Present Value of Total Costs	\$325,280
	8. Line 6 - Line 7	\$1,406,609
Bene	It/Cost Ratio from Cumulative Totals	
No.	Line 8 / Line 7	5.32 TO 1
Disco	unt Payback	
	Line 7 / Line 6 (Years)	.19 YRS

# GAS RATEPAYERS COST EFFECTIVENESS ANALYSIS

# LIST OF ASSUMPTIONS

# GAS WATER HEATER LOAD RETENTION PROGRAM

Ļ	1991 Program Personnel Costs. Escalation Rate - Personnel Costs.	\$6,800 3.0%	
2	1991 Advertising Costs. Escalation Rate - Advertising Costs.	\$5,355 3.0%	
1 3.	Applicable Non-Gee Energy Charge. Escalation Rate - Non-Gee Energy Charge	\$0.2847 0.0%	
4	Average Natural Gas Annual Therm Consumption per Installed Appliance	300	THEFFM
6.	Period of Appliance Use.	. 10	YRS
6.	Discount Rate or Rate of Time Preference	10.45%	MR
7.	Appliances Installed Suring Program 1st Year Escalation Rate	315 3.0%	
6.	Average Allowence per Customer	\$100	
9.	Demend Charges (8/TH)	\$0.02284	
10.	Monthly Service Charge	\$6	
11.	Heet Only Disconnect Period (Months)	6	
12	Cost to Cap Service at Main Escalation Rate	\$125 3.0%	
13.	Cost to Run Service from Mein/Set Regulator and Meter Cost to Set Regulator and Meter Only Escalation Rate	\$375 \$120 3.0%	

# 14. Installation Distribution

Heat Only	0.0%
Sales	0.0%
New on Main	0.0%
Added Load	0.0%

#### NUMBER OF APPLIANCES INSTALLED

	PPLIANCES HSTALLED	APPLIANCES IN SERVICE
1991	315	315
1992 1993	324 334	639 974
1994	344	1,318
1995	<sub>77</sub> 355	1,672
1996	365	2,038
1997	376	2,414
1998	387 399	2,801 3,200
2000	411	3,611
2001	0	3,611
2002	0	3,611
2003	8	3,611 3,611
2004	4. Ö	3,611
2006	0	3,611
2007	0	3,611
2008	0	3,611
2009	8	3,611 3,611
2010	in.	3,011
TOTAL	3.611	

TABLE 1 - PROGRAM COSTS

	PERSONNEL	ADVERTISING	INSTALLATION	TOTAL
YEAR	COSTS	COSTS	ALLOWANCES	COSTS
1991	6,800	5,355	31,500	43,655
1992	7,004	5,516	32,445	44,965
1993	7,214	5,681	33,418	46,314
1994	7,431	5,852	34,421	47,703
1995	7,653	6,027	35,454	49,134
1996	7,883	6,208	36,517	50,608
1997	8,120	6,394	37,613	52,126
1998	8,363	6,586	38,741	53,690
1999	8,614	6,784	39,903	55,301
2000	8,872	6,987	41,100	56,960
Marie Land				
TOTAL	77,954	61,389	361,112	500,456

GENERALDY GUPPE TERMS 1 2 3 AND 4

TABLE 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	COSTS	DISCOUNT FACTOR	PRESENT VALUE
1991	43,655	1.00000	43,655
1992	44,965	0.90539	40,711
1993	46,314	0.81973	37,965
1994	47,703	0.74217	35,404
1995	49,134	0.67195	33,016
1996	50,608	0.60838	30,789
1997	52,126	0.55081	28,712
1998	53,690	0.49870	26,775
1999	55,301	0.45152	24,970
2000	56,960	0.40850	23,285
TOTAL	500,456		325,281

#### SUDGERRY SHEET ITEM 5

TABLE 3 - ESTIMATED NUMBER OF THERMS ADDED

1	THERMS ADDED	THERMS CUMULATIVE	GROSS MARGIN	TOTAL MARGIN
1991	94,500	94,500	0.26484	25,027
1992	97,200	191,700	0.26484	50,770
1993	100,200	291,900	0.26484	77,307
1994	103,200	395,100	0.26434	104,638
1995	106,500	501,600	0.26484	132,844
1996	109,500	611,100	0.26484	161,844
1997	112,800	723,900	0.26484	191,718
1998	116,100	840,000	0.26484	222,466
1999	119,700	959,700	0.26484	254,167
2000	123,300	1,083,000	0.26484	286,822
2001	200,000	1,083,000	0.26484	286,822
2002		1,083,000	0.26484	286,822
2003		1,083,000	0.26484	286,822
2004		1,083,000	0.26484	286,822
2005		1,083,000	0.26484	286,822
2006		1,083,000	0.26484	286,822
2007		1,083,000	0.26484	286,822
2008		1,083,000	0.26484	286,822
2009		1,083,000	0.26484	286,822
2010		1,083,000	0.26484	286,822
2011	Sign	1,083,000	0.26484	286,822
TOTAL	1,083,000			4,662,641

MEN SERVICE & METER SETS TABLE 4 - OPERATING COSTS & SAVINGS

YEAR	COSTS	CUT & CAP SAVINGS	"B" NET
1991	. 0	. 0	0
1992	0	0	0
1993	0	0	0
1994	0	0	Ō
1995	Ŏ	o	0
1996	- 0	Ö	ŏ
1997	ŏ	Ŏ	ō
1998	Ŏ	ŏ	ŏ
1999	. 0	ŏ	Ö
2000	ŏ	Ō	Ŏ
TOTAL	•	0	0

TABLE 5 - DEMAND DISPLACEMENT CHARGES AND CUSTOMER SERVICE CHARGES

YEAR	APPLIANCES IN SERVICE	DEMAND DISPLACE	CUST SERVICE CHARGE	TOTAL CONTRIB.
1991	315	2,158	0	2,158
1992	639	4,378	O	4,378
1993	974	6,674	Ô	6,674
1994	1,318	9,031	0	9,031
1995	1,672	11,457	Ō	11,457
1996	2,038	13,964	O	13,964
1997	2,414	16,541	0	16,541
1998	2,801	19,192	0	19,192
1999	3,200	21,926	0	21,926
2000	3,611	24,743	O	24,743
2001	3,611	24,743	0	24,743
2002	3,611	24,743	0	24,743
2003	3,611	24,743	0	24,743
2004	3,611	24,743	0	24,743
2005	3,611	24,743	O	24,743
2006	3,611	24,743	0	24,743
2007	3,611	24,743	0	24,743
2008	3,611	24,743	0	24,743
2009	3,611	24,743	0	24,743
2010	3,611	24,743	0	24,743
2011	3,611	24,743	0	24,743
TOTAL		402,238	0	402,238

TABLE 6 - PRESENT VALUE OF TOTAL PROGRAM

YEAR	(A + B + C) TOTAL CONTRIB.	DISCOUNT	PRESENT VALUE
1991	27,105	1.00000	27,185 49,931
1992	55,148	0.81973	68,842
1993	83,981	0.74217	84,362
1994	113,669 144,301	0.67195	96,963
1996	175,808	0.60838	106,958
1997	208,259	0.55081	114,711
1998	241,658	0.49870	120,515
1999	276,093	0.45152	124,662
2000	311,565	0.40880	127,368
2001	311,565	0.37012	115,316
2002	311,565	0.33510	104,405
2003	311,565	0.30340	94,529
2004	311,565	0.27469	85,584
2005	311,565	0.24870	77,486
2006	311,565	0.22517	70,155
2007	311,565	0.20387	63,519
2008	311,565	0.18458	57,509
2009	311,565	0.16712	52,069
2010	311,565	0.15130	47,140
2011	311,565	0.13699	42,681
TOTAL	5,064,883		1,731,889

SUMMARY SHEET ITEM NUMBER 6

### Program Description

The Gas Space Conditioning Allowance Program is designed to convert customers from electric space conditioning equipment to energy efficient natural gas space conditioning equipment and to initially install gas space conditioning equipment instead of electric equipment. The program offers an allowance to help reduce generally higher initial costs of gas space conditioning equipment over equivalent electric space conditioners. This program will also reduce summer as well as winter peak demand and contribute to the conservation of KWH consumption.

The Gas Space Conditioning Allowance Program is intended to encourage participation by residential and commercial firm gas customers and is intended to apply to total space conditioning which includes not only heating and cooling but humidity control as well.

# II. Program Participation Standards

Any current or potential residential or commercial customer using gas for space conditioning for the first time would be offered an incentive allowance of \$100.00 per ton to assist in delraying the additional cost of conversion from electric or initial installation to natural gas and the cost of energy efficient natural gas equipment. The program is svallable to customers replacing electric space conditioning with gas equipment, or installing gas space conditioning for the first time, provided the new equipment has a

COP of .8 or above. Although the program is open to residential customers, commercial customers will receive the most benefit due to installations of high tonnage units in larger commercial establishments.

The allowance is \$100.00 per ton, payable to a maximum 100 tone per project.

#### III. Bonellie and Costs

The following effects in decreasing summer peak KWD and annual KWH consumptions are expected with the replacement of 1 (one) ton of electric space conditioning with energy efficient natural gas space conditioning:

Tonnece	KWD Displacement	Annual KWH Consumption
1 (one) Ton	1	2,500

Company-wide projections of the program with demand and energy savings are shown on Table A-1.

The number of customers anticipated to participate are shown as projections on Table A-2.

Based on projections of customers expected to participate in the program, first year costs are anticipated as follows:

Per Customer	\$.76/52,260	Total Customers
Administrative	\$13,250.00	
Incentives :	\$26,500.00	

#### V. Cost Effectiveness Methodology

Based on the cost effectiveness methodology used in currently approved conservation programs, and using the assumptions listed, a benefit/cost ratio of 8.29 to 1 with a psyback period of .12 years will be achieved for the State of Florida. The ratepayers of West Florida Natural Gas Company will receive a benefit/cost ratio of 3.34 to 1 with a psyback period of .30 years.

# V. Program Monitoring and Evaluation

The progress of the West Florida Natural Gas Company Gas Space Conditioning Allowance Program will be monitored monthly at both divisions of the company. The Panama City office will also submit a semi-annual report to the Florida Public Service Commission for both divisions. Feedback received from both divisions will be constantly evaluated, and any revisions will be proposed to the program based upon these evaluations. Allowances paid to eligible participants under the program guidelines are based upon documentation and information necessary for Florida Public Service Commission audit purposes.

#### ATTACHMENT A - 1

#### GAS SPACE CONDITIONING ALLOWANCE PROGRAM

### PROJECTED FORECASTED CONSERVATION

YEAR MALE TO A TO A	AVOIDED	ANNUAL KWH REDUCTION
1991	292	728,750
1992	364	910,938
1993	455	1,138,672
1994	569	1,423,340
1995	712	1,779,175
1996	890	2,223,969
1997	1,112	2,779,961
1998	1,390	3,474,951
1999	1,737	4, 343, 688
2000	2,172	5,429,611
TOTAL	9,693	24,233,053

### ATTACHMENT A-2

#### GAS SPACE CONDITIONING ALLOWANCE PROGRAM

TIME.	OF ELIGIBLE PARTICIPANTS	# OF ACTUAL PART- ICIPATING HOMES	OF ACTUAL TO ELIGIBLE
1985 1986	And the second s		
1988 1988	45		
1991	200,000	40	0.02%
1993	200,000	50	0.03%
1993	200,000	63	0.03%
1994	200,000	78	0.04%
1995	200,000	98	0.05%
1996	200,000	122	0.06%
1997	200,000	153	0.08
1998	200,000	191	0.10
1999	200,000	238	0.12%
2000	200,000	298	0.15%

# GAS SPACE CONDITIONING ALLOWANCE PROGRAM

# RESULTS FROM ALLOWANCE PROGRAM

# Estimated Gas Company Expanditures

1. Respond Code	\$192,867
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	North Clean
2. Advertising Costs	\$96,197
3. Installation Allowances	\$881,202
4. Total Costs	\$1,172,266
5. Present Value of Total	\$662,334
zione	
* . C. KW 9,693	
7. MWH	261,133
sted Electric Company Benefits	
8. Construction Savings	\$9,769,292
9. Fuel Purchase Savings	
A. OII	\$1,142,679
B. Coel	\$(493,688)
10. Total Savings	\$10,418,283
resent Value of Total Program	
11. Net Present Value	\$5,492,161
enefits from Cumulative Totals	
Cal 11 - Cal 5	\$4,829,827
	4. Total Costs 5. Present Value of Total stions 6. KW 9,693 7. MWH stad Electric Company Benefits 8. Construction Savings 9. Fuel Purchase Savings A. Oil B. Cosl 10. Total Savings resent Value of Total Program 11. Net Present Value

#### Benefit/Cost Ratio from Cumulative Totals

Col 11 / Col 5 2 8.29 TO 1

Discount Payback

Col 5 / Col 11 (Years) 0.12 YEARS

The state of the s

# LIST OF ASSUMPTIONS

# GAS SPACE CONDITIONING ALLOWANCE PROGRAM

	1.	1991 Program Personnel Costs.	5,800	
Ġ	<b>≯</b> ,	Escalation Rate - Personnel Costs.	25.0%	/YH
	2	1991 Advertising Costs. Escalation Rate - Advertising Costs.	7,450 6.0%	
	3.	Fuel Cost of Natural Gas 1991 Escalation Rate - Fuel Cost Natural Gas	\$0.2864 3.0%	/THERM /YR
7	7	KWH Produced from Ton of Coel	2076	KWH
y's	5.	KWH Produced from Barrel #6 Oil	613	KWH
	6.	Percentage Breakdown of Displaced Fuel from Reduced KWH Generation	19.6% 80.4%	OIL
	7.	1990 Construction Cost per KW. (Pulverized Cosl) Escalation Rate of Construction.	\$721 5.4%	
	8.	Treatment of Deferred KW - It is treated as being eliminated at the time of its deferral.		
3	9.	Allowance per Customer Toward Installation of Gas AC/HEAT Unit on a \$/Ton Basis. Average KW Displaced per Ton	\$100.00 1.1	/TON
	10.	Demand Displacement Winter and Summer Peak.	1.1	KW
	11.	Annual KWH Reductions 1st Year	728,750	KW
	12	Estimated Annual Hours of Operation.	2500	HRS/YR
	13.	Natural Therm Consumption per Ton per Hour	0.0840	THERMS
2	14.	Natural Gas Annual Therm Consumption per Ton	210	THERMS

16.	Units Installed During ( Escalation Rate	Program 1st Y	eer .		40 25.0%	UNITS /YR
17.	And the state of t				\$20.50	-
	Escalation Rate				4.0%	MR
18.	Price of Coal per Ton				\$42.00	/TON
013	Escalation Rate	<b></b>			3.0%	MR
10.	Discount Rate or Rate	of Time Prefe	rence		10.45%	/YR
20.	Tone installed During	Program Life				
1991	205 1005	647	1999	1580		
1992	331 1995	809	2000	1974		
1993	414 1997	1011				
					•	

21. Most tonnege will be used by commercial customers; therefore these figures reflect commercial rates.

TABLE - 1 - PROGRAM COSTS

YEAR	PERSONNEL. COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
	4			
1991	5,800	7,450	26,500	39,750
1992	7,250	7,897	33,125	48,272
1993	9,063	8,371	41,406	58,840
1994	11,328	8,873	51,758	71,959
1995	14,160	9,405	64,697	88,263
1996	17,700	9,970	80,872	108,542
1997	22,125	10,568	101,089	133,783
1998	27,657	11,202	126, 362	165,220
1999	34,571	11,874	157,952	204.397
2000	43,213	12,587	197,440	253,240
Ve	192,867	98,197	881,202	1,172,266

SUMMARY SHEET ITEMS 1. 2. 3. AND 4.

TABLE - 2 - PRESENT VALUE OF TOTAL COSTS

3.39			
YEAR	COSTS	DISCOUNT	PRESENT VALUE
1991	39,750	1.00000	39,750
1992	48,272	0.90539	43,705
1993	58,840	0.81973	48,233
1994	71,959	0.74217	53,406
1995	88,263	0.67195	59,308
1996	108,542	0.60838	66,035
1997	133,783	0.55081	73,689
1998	165,220	0.49870	82,395
1999	204,397	0.45152	92,289
2000	253,240	0.40880	103,525
TOTAL	Sp		662,334

SUMMARY SHEET ITEM 5

TABLE - 3 - ESTINATED INSTALLATIONS OF MATURAL GAS AC TONS

(\$)

YEAR	TONS	DISPLACED	KWH AVOIDED
1991	265	292	728,750
1992	331	364	910,938
1993	414	455	1,138,672
1994	518	569	1,423,340
1995	647	712	1,779,175
1996	809	890	2,223,969
1997	1,011	1,112	2,779,961
1998	1,264	1,390	3,474,951
1999	1,580	1,737	4,343,688
2000	1,974	2,172	5,429,611
	8,812	9,693	24,233,053

TABLE - 4 - KM AVOIDANCE AND KWH REDUCTIONS FROM PROGRAM

YEAR		KMH	CUMULATIVE
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	292 364 455 569 712 890 1,112 1,390 1,737 2,172	728,750 910,938 1,138,672 1,423,340 1,779,175 2,223,969 2,779,961 3,474,951 4,343,688 5,429,611	729 1,640 2,778 4,202 5,981 8,205 10,985 14,460 18,803 24,233 24,233 24,233 23,504 22,593 21,455 20,031 18,252
2007 2008 2009 2010	att in the second		16,028 13,248 9,773 5,430
			261,133

SURGIARY SHEET ITEMS 6 AND 7.

TABLE - 5 - TOTAL CONSTRUCTION COSTS DEFERRED

YEAR	EW DEFERRED	COSTS PER	TOTAL CONSTRUCTION COSTS DEFERRED
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	292 364 455 569 712 890 1,112 1,390 1,737 2,172	721 760 801 844 890 938 989 1,042 1,098	210,172 276,901 364,817 480,646 633,252 834,309 1,099,202 1,448,199 1,908,002 2,513,793
<i>y</i> .			9,769,292

SIRMADY SUPER TREE &

# FUEL SAVINGS - OIL

YEAR	REDUCED	19.6% OIL	KW/BBL	\$/BBL	AVOIDED
1991	728,750	142,835	613	20.50	4,777
1992	1,639,688	321,379	613	21.32	11,177
1993	2,778,360	544,559	613	22.17	19,697
1994	4,201,700	823,533	613	23.06	30,980
1995	5,980,875	1,172,252	613	23.98	45,861
1996	8,204,844	1,608,149	613	24.94	65,431
1997	10,984,805	2,153,022	613	25.94	91,105
1998	14,459,756	2,834,112	613	26.98	124,722
1999	18,803,444	3,685,475	613	28.06	168,676
2000	24,233,055	4,749,679	613	29.18	226,078
2001	24,233,055	4,749,679	613	30.35	235,121
2002	23,504,305	4,606,844	613	31.56	237,172
2003	22,593,367	4,428,300	613	32.82	237,099
2004	21,454,695	4,205,120	613	34.13	234,156
2005	20,031,355	3,926,146	613	35.50	227,367
2006	18,252,180	3,577,427	613	36.92	215,459
2007	16,028,211	3,141,529	613	38.40	196,774
2008	13,248,250	2,596,657	613	39.93	169,151
2009	9,773,299	1,915,567	613	41.53	129,775
2010	5,429,611	1,064,204	613	43.19	74,981
TOTAL					2,745,559

#### FUEL SAVINGS - COAL

YEAR	REDUCED	80.4% COAL	KW/TON	\$/TON	AVOIDED
1001	700 250	405 A15	2.076	42.00	11,854
1991	728,750	585,915	2,076	43.26	27,471
1992	1,639,688	1,318,309	2,076		The second secon
1993	2,778,360	2,233,801	2,076	44.56	47,945
1994	4,201,700	3,378,167	2,076	45.89	74,682
1995	5,980,875	4,808,624	2,076	47.27	109,494
1996	8,204,844	6,596,695	2,076	48.69	154,716
1997	10,984,805	8,831,783	2,076	50.15	213,351
1998	14,459,756	11,625,644	2,076	51.65	289,267
1999	18,803,444	15,117,969	2,076	53.20	387,448
2000	24,233,055	19,483,376	2,076	54.80	514,306
			2,076	56.44	529,735
2001	24,233,055	19,483,376		58.14	529,218
2002	23,504,305	18,897,461	2,076	the state of the state of	
2003	22,593,367	18,165,067	2,076	59.88	523,969
2004	21,454,695	17,249,575	2,076	61.68	512,489
2005	20,031,355	16,105,209	2,076	63.53	492,844
2006	18,252,180	14,674,753	2,076	65.43	462,542
2007	16,028,211	12,886,682	2,076	67.40	418,368
2008	13,248,250	10,651,593	2,076	69.42	356,180
2009	9,773,299	7,857,732	2,076	71.50	270,638
2010	5,429,611	4,365,407	2,076	73.65	154,865
	-/4/4-2	1,555,15.	-,		
TOTAL					6,081,381

### AMBUAL FUEL CONSUMPTION - NATURAL GAS

	The state of the s			
YEAR	CONSUMED	THERMS CUMULATIVE	\$/THERM	TOTAL COSTS
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	55,650 69,563 86,953 100,691 135,864 169,830 212,208 265,360 331,700 414,625	55,650 125,213 212,166 320,857 456,721 626,552 838,840 1,104,199 1,435,899 1,850,524 1,850,524 1,850,524 1,794,874 1,725,312 1,638,358 1,529,667 1,393,803 1,223,972 1,011,684 746,325 414,625	0.2864 0.2950 0.3039 0.3130 0.3224 0.3321 0.3420 0.3523 0.3629 0.3737 0.3850 0.3965 0.4084 0.4206 0.4333 0.4463 0.4597 0.4734 0.4876 0.5023	15,940 36,942 64,474 100,428 147,243 208,054 286,904 388,993 521,021 691,613 712,362 711,667 704,609 689,170 662,753 622,004 562,601 478,974 363,941 208,255

#### MATURAL GAS FUEL COST - DISPLACEMENT DISTRIBUTION

Company of the second

YEAR	TOTAL NATURAL	19.64 OIL	80.48 COAL
1991	15,940	3,124	12,816
1992	36,942	7,241	29,701
1993	64,474	12,637	51,837
1994	100,426	19,684	80,744
1995	147,243	28,860	118,383
1996	208,054	40,779	167,276
1997	286,904	56,233	230,670
1998	388,993	76,243	312,750
1999	521,021	102,120	418,901
2000	691,613	135,556	556,057
2001	712,362	139,623	572,739
2002	711,667	139,487	572,181
2003	704,609	138,103	566,505
2004	689,170	135,077	554,093
2005	652,753	129,900	532,853
2006	€.12 - 004	121,913	500,091
2007	542,601	110,270	452,332
2008	478,974	93,879	385,095
2009	363,941	71,333	292,609
2010	208,255	40,818	167,437
	3	1,602,878	6,575,072
TOTAL		1,002,070	0,3/3,0/4

TABLE - 6 - FUEL SAVINGS OIL

THE REPORT OF THE PARTY OF THE

YEAR	AVOIDED CIL COSTS	COSTS	FUEL SAVINGS
1991	4,777	3,124	1,653
1992	11,177	7,241	3,936
1993	19,697	12,637	7,060
1994	30,980	19,684	11,296
1995	45,861	28,860	17,001
1006	65,431	40,779	24,652
1997	91,105	56,233	34,872
1998	124,722	76,243	48,479
1999	168,676	102,120	66,556
2000	226,078	135,556	90,522
2001	235,121	139,623	95,498
2002	237,172	139,487	97,685
2003	237,099	138,103	98,996
2004	234,156	135,077	99,079
2005	227,367	129,900	97,467
2006	215,459	121,913	93,546
2007	196,774	110,270	86,504
2008	169,151	93,879	75,272
2009	129,775	71,333	58,442
2010	74,981	40,818	34,163
			1,142,679

SUMMARY SHEET ITEM 9A

TABLE - 7 - FUEL SAVINGS COAL

YEAR	COAL COSTS	GAS COSTS	FUEL SAVINGS
1991	11,854	12,816	(962)
1992	27,471	29,701	(2,230)
1993	47,945	51,837	(3,892)
1994	74,682	80,744	(6,062)
1995	109,494	118,383	(8,889)
1996	154,716	167,276	(12,560)
1997	213,351	230,670	(17,319)
1998	289,267	312,750	(23,483)
1999	387,448	418,901	(31,453)
2000	514,306	556,057	(41,751)
2001	529,735	572,739	(43,004)
2002	529,218	572,181	(42,963)
2003	523,969	566,505	(42,536)
2004	512,489	554,093	(41,604)
2005		532,853	(40,009)
2006	462,542	500,091	(37,549)
2007	418,368	452,332	(33,964)
2008	356,180	385,095	(28,915)
2009	270,638	292,609	(21,971)
2010	154,865	167,437	(12,572)
			(493,688)

SUMMARY SHEET ITEM 9B  $\psi^{\mathcal{S}}$ 

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TABLE - 8 - TOTAL SAVINGS

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YEAR	CONSTRUCTION	OIL	COAL	TOTAL
	DEFERRED	SAVINGS	SAVINGS	SAVINGS
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	210,172 276,901 364,817 480,646 633,252 834,309 1,099,202 1,488,199 1,908,002 2,513,793	1,653 3,936 7,060 11,296 17,001 24,652 34,872 48,479 66,556 90,522 95,498 97,685 98,996 99,079 97,467 93,546 86,504 75,272 58,442 34,163	(962) (2,230) (3,892) (6,062) (8,889) (12,560) (17,319) (23,483) (31,453) (41,751) (43,004) (42,963) (42,536) (41,604) (40,009) (37,549) (33,964) (28,915) (21,971) (12,572)	210,863 278,607 367,985 485,880 641,364 846,401 1,116,755 1,513,195 1,943,105 2,562,564 52,494 54,722 56,460 57,475 57,458 55,997 52,540 46,357 36,471 21,591

### TABLE - 9 - NET PRESENT VALUE OF TOTAL PROGRAM

YEAR	TOTAL	DISCOUNT RATE	PRESENT VALUE
1991	210,863	1.0000	210,863
1992	278,607	0.9054	252,251
1993	367,985	0.8197	301,637
1994	485,880	0.7422	360,620
1995	641,364	0.6720	430,997
1996	846,401	0.6084	514,950
1997	1,116,755	0.5508	615,109
1998	1,513,195	0.4987	754,630
1999	1,943,105	0.4515	877,312
2000	2,562,564	0.4088	1,047,576
2001	52,494	0.3701	19,428
2002	54,722	0.3351	18,337
2003	56,460	0.3034	17,130
2004	57,475	0.2747	15,788
2005	57,458	0.2487	14,290
2006	55,997	0.2252	12,611
2007	52,540	0.2039	10,713
2008	46,357	0.1846	8,558
2009	36,471	0.1671	6,094
2010	21,591	0.1513	3,267
-010		0.1313	
TOTAL			5,492,161

WEST FLORIDA NATURAL GAS RATEPAYER BENEFITS
GAS SPACE CONDITIONING ALLOWANCE PROGRAM

# WEST FLORIDA NATURAL GAS RATE PAYER BENEFITS

# GAS SPACE CONDITIONING ALLOWANCE PROGRAM

# Besults from Allowance Program

# Estimated Gas Company Expanditures

1. Personnel Costs	\$192,867
2. Advertising Costs	\$96,197
3. Installation Allowances	\$881,202
4. Total Costs	\$1,172,266
5. Present Value of Total Costs	\$662,335
Present Value of Total Program Benefits	
6. Present Value Benefits	\$2,210,395
7. Present Value of Total Costs	\$662,335
8. Line 6 - Line 7	\$1,548,060
Benefit/Cost Ratio from Cumulative Totals	
Line 6 / Line 7	3.34 TO 1
Discount Psyback	
Line 7 / Line 6 (Years)	.30 YRS

# LIST OF ASSUMPTIONS

# GAS SPACE CONDITIONING ALLOWANCE PROGRAM

1991 Program Personnel Costs Escalation Rate - Personnel Costs	\$5,800 /YR 25.0% /YR
1991 Advertising Costs Escalation Rate - Advertising Costs	\$7,450 /YR 6.0% /YR
Applicable Non-Gas Energy Charge Escalation Rate - Non-Gas Energy Charge	\$0.1362 /THERM 0.0% /YR
Average Natural Gas Annual Therm Consumption per Installed Appliance	1391 THERM
Period of Appliance Use	10 YEARS
Discount Rate or Rate of Time Preference	10.45% MR
Appliances Installed During Program 1st Year Escalation Rate	40 25.0% /YR
verage Allowance per Customer	\$663
Demand Charges (\$/TH)	\$0.02284
Monthly Service Charge	\$15
Heat Only Disconnect Period (Months)	6
Cost to Cap Service at Main Escalation Rate	\$125 3.0%
Cost to Run Service from Main/Set Regulator and Meter Cost to Set Regulator and Meter Only Escalation Rate	\$510 \$195 3.0%
	Escalation Rate - Personnel Costs  1991 Advertising Costs Escalation Rate - Advertising Costs  Applicable Non-Gas Energy Charge Escalation Rate - Non-Gas Energy Charge Escalation Rate - Non-Gas Energy Charge  Average Natural Gas Annual Therm Consumption per Installed Appliance  Period of Appliance Use  Discount Rate or Rate of Time Preference  Appliances Installed During Program 1st Year Escalation Rate  Average Allowance per Customer  Demand Charges (\$/TH)  Monthly Service Charge  Heat Only Disconnect Period (Months)  Cost to Cap Service at Main Escalation Rate  Cost to Run Service from Main/Set Regulator and Meter Cost to Set Regulator and Meter Only

15. Installation Distribution:

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 $\frac{1}{M_{2}} \gamma_{1} \beta^{2}$ 

Hest Only 0.0%
Reactivate 5.0%
New on Main 50.0%
Added Load 45.0%

喂

 Most tonnage will be used by commercial customers; therefore, these figures reflect commercial rates.

NUMBER OF APPLIANCES INSTALLED

YEAR	APPLI		APPLIANCES IN SERVICE
1991		40	40
1992		50	90
1993	1	63	153
1994	1-2	78	231
1995		94	328
1996		122	450
1997	4	153	603
1998		191	794
1999	. E.	238	1,032
2000		298	1,330
2001		0	1,330
2002		o	1,330
2003		0	1,330
2004	122	0	1,330
2005		0	1,330
2006		0	1,330
2007		0	1,330
2008	3 <sub>e</sub>	0	1,330
2009		ŏ	1,330
2010		ō	1,330
TOTAL		1,330	

TABLE 1 - PROGRAM COSTS

YEAR	PERSONNEL COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
		********	*********	*****
1991	5,800	7,450	26,500	39,750
1992	7,250	7,897	33,125	48,272
1993	9,063	8,371	41,406	58,840
1994	11,328	8,873	51,758	71,959
1995	14,160	9,405	64,697	88,263
1996	17,700	9,970	80,872	108,542
1997	22,125	10,568	101,089	133,783
1998	27,657	11,202	126,362	165,220
1999	34,571	11,874	157,952	204,397
2000	43,213	12,587	197,440	253,240
TOTAL	. 192,867	98,197	881,202	1,172,266

SUMMARY SHEET ITEMS 1, 2, 3 AND 4

REVISED
TABLE 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	TOTAL	DISCOUNT FACTOR	PRESENT VALUE
1991	39,750	1.00000	39,750
1992	48,272	0.90539	43,705
1993	56,840	0.81973	48,233
1994	71,959	0.74217	53,406
1995	88,263	0.67195	59,308
1996	108,542	0.60838	66,035
1997	133,783	0.55081	73,689
1998	165,220	0.49870	82,395
1999	204,397	0.45152	92,289
2000	253,240	0.40880	103,525
TOTAL	1,172,266		662,335

#### SIDMARY SHEET TYEN S

TABLE 3 - ESTIMATED NUMBER OF THERMS ADDED

YEAR	THERMS	THERMS CUMULATIVE	GROSS MARGIN	"A" TOTAL MARGIN
1991	55,640	55,640	0.12928	7,193
1992	69,550	125,190	0.12928	16,185
1993	139,163	264,353	0.12928	34,176
1994	108,498	372,851	0.12928	48,202
1995	136,318	509,169	0.12928	65,825
1996	169,702	678,871	0.12928	87,764
1997	212,823	891,694	0.12928	115,278
1998	265,681	1,157,375	0.12928	149,625
1999	331,058	1,488,433	0.12928	192,425
2000	414,518	1,902,951	0.12928	246,014
2001	,	1,902,951	0.12928	246,014
2002		1,902,951	0.12928	246,014
2003		1,902,951	0.12928	246,014
2004		1,902,951	0.12928	246,014
2005		1,902,951	0.12928	246,014
2006		1,902,951	0.12928	246,014
2007		1,902,951	0.12928	246,014
2008		1,902,951	0.12928	246,014
2009		1,902,951	0.12928	246,014
2010	,	1,902,951	0.12928	246,014
2011		1,902,951	0.12928	246,014
TOTAL	1,902,951			3,668,836

TABLE 4 - OPERATING COSTS & SAVINGS

YEAR	COSTS	SAVINGS	"B" NET
1991	10,590	0	(10,590)
	13 618		(13,635)
1992	13,713	0	
1993	17,500	0	(17,555)
1994	22,602	0	(22,602)
1995	29,099	0	(29,099)
1996	37,466	0	(37,466)
1997	48,237	0	(48,237)
1998	62,105	0	(62,105)
1999	79,960	0	(79,960)
2000	102,949	Ŏ	(102,949)
TOTAL	424,197	0	(424, 197)

TABLE 5 - DEMAND DISPLACEMENT CHARGES AND CUSTOMER SERVICE CHARGES

YEAR	APPLIANCES IN SERVICE	DEMAND DISPLACE	CUST SERVICE CHARGE	TOTAL CONTRIB.
1991	· 40	1,271	7,200	8,471
1992	90	2,859	16,200	19,059
1993	153	4,861	27,540	32,401
1994	231	7,339	41,580	48,919
1995	328	10,421	59,040	69,461
1996	450	14,297	\$1,000	95,297
1997	603	19,158	108,540	127,698
1998	794	25,226	142,920	168,146
1999	1,032	32,787	185,760	218,547
2000	1,330	42,255	239,400	281,655
2001	1,330	42,255	239,400	281,655
2002	1,330	42,255	239,400	281,655
2003	1,330	42,255	239,400	281,655
2004	1,330	42,255	239,400	281,655
2005	1,330	42,255	239,400	281,655
2006	1,330	42,255	239,400	281,655
2007	1,330	42,255	239,400	281,655
2008	1,330	42,255	239,400	281,655
2009	1,330	42,255	239,400	281,655
2010	1,330	42,255	239,400	281,655
2011	1,330	42,255	239,400	281,655
TOTAL	* <del>* • •</del> •	625,274	3,542,580	4,167,854

TABLE 6 - PRESENT VALUE OF TOTAL PROGRAM

YEAR	(A + B + C) TOTAL CONTRIB.	DISCOUNT PACTOR	PRESENT VALUE
1991	5,074	1.00000	5,074
1992	21,610	0.90539	19,565
1993	49,022	0.81973	40,185
1994	74,519	0.74217	55,306
1995	106,186	0.67195	71,352
1996	145,595	0.60838	88,577
1997	194,739	0.55081	107,264
1998	255,666	0.49870	127,500
1999	331,012	0.45152	149,458
2000	424,720	0.40880	173,626
2001	527,669	0.37012	195,301
2002	527,669	0.33510	176,822
2003	527,669	0.30340	160,095
2004	527,669	0.27469	144,945
2005	527,669	0.24870	131,231
2006	527,669	0.22517	118,815
2007	527,669	0.20387	107,576
2008	527,669	0.18458	97,397
2009	527,669	0.16712	88,184 79,836
2010	527,669	0.15130 0.13699	72,285
2011	527,669	0.13699	/2,200
TOTAL	7,412,498		2,210,395

SUMMARY SHEET ITEM NUMBER 6

#### I. Program Description

The Commercial Electric Resistance Appliance Replacement Program is designed to promote the use of natural gas to high priority customers. This program is aimed at the conversion of non-residential customers from electric resistance appliances to energy efficient natural gas appliances. These conversions will effectively reduce KWH and KWD within our service area, as well as reduce the escalating rates of electric consumption.

### II. Program Participation Standards

This program offers non-residential customers an incentive allowance of \$30,00/KWD to assist in defraying the additional cost associated with natural gas piping and venting required for conversion from electricity to natural gas and the cost of an energy efficient natural gas appliance. The program is available to any non-residential customer replacing an electric appliance with input of 6,000 watts or more. Replacement equipment must be an energy efficient natural gas appliance.

The Commercial Electric Resistance Appliance Replacement Program applies to all energy efficient commercial gas appliances including, but not limited to, the following examples:

Water heaters and boilers
Central heating furnaces
Fryers and

### Other cooking equipment

The monetary allowance is \$30.00 per KWD, maximum of 100 KWD deferred.

The allowance paid is based on KWD deferred. The formula below is to be used in calculating the customer's allowance:

#### III. Baralle and Costs

The following effect in decreasing winter peak KWD and annual KWH consumption is expected with the replacement of commercial electric resistance appliances with energy efficient natural gas appliances:

Acoleoce	3.	KWD Displacement	Annual KWH Consumption
76	11 pt	***** C+ *	
<b>Water Heate</b>	ी व	25	43,800

Company-wide projections of the program with demand and energy savings are shown on Table A-1.

Projections of anticipated new customer participants are shown on Table A-2.

Based on projections of customers expected to participate in the program, first

year costs are anticipated as follows:

Per customer . \$2.22/52,260 Total Customers
Administrative \$26.250.00

incentives \$90,000.00

# N. Cost Effectiveness Methodology

Based on the gost effectiveness methodology used in currently approved

conservation programs, and using the assumptions listed, a benefit/cost ratio of 19.86 to 1 with a psychock period of .05 years will be achieved for the State of Florida. The ratepsyers of West Florida Natural Gas Company will receive a benefit/cost ratio of 4.82 to 1 with a psychock period of .21 years.

### V. Program Monitoring and Evaluation

The progress of the West Florida Natural Gas Company Commercial Electric Resistance Appliance Replacement Program will be monitored monthly at both divisions of the company. The Panama City office will also submit a semi-annual report to the Florida Public Service Commission for both divisions. Feedback received from both divisions will be constantly evaluated, and any necessary revisions will be proposed to the program based upon these evaluations. Allowances paid to eligible participants under the program guidelines are made based upon documentation and information necessary for Florida Public Service Commission audit purposes.

# ATTACHMENT $\lambda - 1$

# COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

# PROJECTED FORECASTED CONSERVATION

YEAR AVOIDED CAPACITY	ANNUAL KWH REDUCTION
	***************************************
1991 1,152	9,975,000
1992 1,187	10,274,250
1993 1,222	10,582,478
1994 1,259	10,899,952
	11,226,950
1,297	11,563,759
1996 1,335	
1997 1,376	11,910,672
1998 1,417	12,267,992
1999 4 1,459	12,636,032
	13,015,113
2000 1,503	
TOTAL 13,206	114,352,196

### ATTACHDENT A-2

### CONSIGRATION ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

YEAR.	PARTICIPANTS	OF ACTUAL APPLIANCES	TO ELIGIBLE
1905 1906			
1987		<del>*</del>	
1900			
1989			
1991	3,750	120	3.20%
1992	3,863	124	3.20%
1993	3,978	127	3.20%
2004	4,098	131	3.20%
1995	4,221	135	3.20%
1996	4,347	139	3.20%
1997	4,478	143	3.20%
1998	4,612	148	3.20%
1999	4,750	152	3.20%
2000	4,893	157	3.20%

# COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM RESULTS FROM ALLOWANCE PROGRAM

### Estimated Gas Company Expenditures

3 1118	SCHOOL STREET,	
da y al	1. Personnel Costs	\$180,556
. n.	2. Advertising Costs	\$120,371
	3. Installation Allowences	\$1,031,749
1 3 -	4. Total Costs	\$1,332,676
Badad	5. Present Value of Total  S78	\$866,197
	a kw	13,208
Edina	7. MONT of Flechic Company Benefits	1,244,857
-1	8. Construction Savings	\$12,358,346
	9. Fuel Purchase Savings	
	A. OI	\$9,231,680
9.00	B. Coel	\$15,116,509
n <del>t</del>	10. Total Savings	\$36,706,535
Net Pre	eent Value of Total Program	
21	11. Net Present Value	\$17,199,349
	sellts from Cumulative Totals	
2 h	Col 11 - Col 5	\$16,333,152

### Benefit/Cost Ratio from Cumulative Totals

Col 11 / Col 5 19.86 TO 1

Discount Prevbed

Cal 5 / Cal 11 (Years) .05 YRS

### LIST OF ASSUMPTIONS

### COMMERCIAL ELECTRIC APPLIANCE RESISTANCE PROGRAM

E-0. M. M.	TO LINE THE SECOND CO.		
1.		15,750	
RFC)	Escalation Rate - Personnel Costs.	3.0%	/YH
2	1991 Advertising Costs.	10,500	and the second second
	Escalation Rate - Advertising Costs.	3.0%	/In
	Fuel Cost of Natural Gas 1991. Escalation Pate - Fuel Cost Natural Gas.	\$0.28644 3.0%	
			27.1
	KWH Produced from Ton of Coel.	2076	KWH
<b>5.</b> s	KWH Produced from Berrel #6 Oil.	613	KWH
	Percentage Breakdown of Displaced Fuel	19.6%	-
	from Reduced KWH Generation.	80.4%	COAL
7,	1991 Construction Cost per KW. (Pulverized Coel)	\$721	
из-	Escalation Plate of Construction.	5.4%	/YH
-	Treatment of Deferred KW - It is treated as being eliminated at the time of its deferral.		
9.	Allowance per Customer Toward Installation of		
Ar d	Commercial Natural Gas Water Heater on a \$/KW Basis. Average KW for Water Heater Being Replaced	\$30.00 25.0	KW/WH
10.	Demand Displacement (Winter) and Summer Peak.	9.6	KW
11,	Annual KWH Reductions 1st Year	28,800	KWH
12	Estimated Annual Hours of Operation.	3325	HRS/YR
13.	Estimeted Percent of Full Load on Time	38%	ON
14.	Natural Gas Annual Therm Consumption per Installation	0045	THERM
	The same of the sa	100	
15.	Period of Appliance Use.	10	YRS
18.	Appliances Displaced During Program 1st Year	120	UNITS

Escalation Re					3.0%	M	
17. Price of Oil p	er Berrel				\$20.50	/BL	
Ecclation Re		•			4.0%	MR	
18. Price of cost	per Ton				\$42.00	/TON	
Esculation Ru					3.0%	MA	
19. Discount Ret	e or Rate of Time Prefe	erence			10.45%	MR	
20. Appliances D	leplaced During Progra	am Life					
<b>199</b> 1	120 1996	135	1999	152			
1002	124 1996	139	2000	157			
1835	127 1997	143					
A. A.		10.72					

### COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

TABLE - 1 - PROGRAM COSTS

YEAR COS		ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
1992 1993 1994 1995 1996 1997 1998	15,750 16,223 16,709 17,210 17,727 18,259 18,806 19,371	10,500 10,815 11,139 11,474 11,818 12,172 12,538 12,914 13,301	90,000 92,700 95,481 98,345 101,296 104,335 107,465 110,689 114,009	116,250 119,738 123,330 127,030 130,840 134,766 138,809 142,973 147,262
	20,550 80,556	13,700	1,031,749	1,332,676

SUNGIARY SHEET ITEMS 1, 2, 3, AND 4.

TABLE - 2 - PRESENT VALUE OF TOTAL COSTS

	The state of the s		
YEAR	TOTAL	DISCOUNT FACTOR	PRESENT VALUE
1991	116,250	1.00000	116,250
1992	119,738	0.90539	108,409
1993	123,330	0.81973	101,097
1994	127,030	0.74217	94,277
1995	130,840	0.67195	87,918
1996	134,766	0.60838	81,989
1997	138,809	0.55081	76,457
1998	142,973	0.49870	71,301
1999	147,262	0.45152	66,492
2000	151,680	0.40880	62,007
TOTAL		100,715	866,197

SUMMARY SHEET ITEM 5

TABLE - 3 - ESTIMATED INSTALLATIONS OF NATURAL GAS HOMES

YEAR	WATER HEATERS DISPLACED	DISPLACED	KWH AVOIDED
1991	120	1,152	9,975,000
1992	124	1,187	10,274,250
1993	127	1,222	10,582,478
1994	131	1,259	10,899,952
1995	135	1,297	11,226,950
1996	. 139	1,335	11,563,759
1997	143	1,376	11,910,672
1998	148	1,417	12,267,992
1999	152	1,459	12,636,032
2000	157	1,503	13,015,113
" Jan - 2"	1.376	13,206	114,352,196

### \* COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

TABLE - 4 - EM AVOIDANCE AND EMH REDUCTIONS FROM PROGRAM

YES	1000	CUMULATIVE
1991 1992 1993 1994 1995 1996 1997 1998 141 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2009	10,274,250 10,582,478 10,899,952 11,226,950 11,563,759 11,910,672 12,267,992 12,636,032	9,975 20,249 30,832 41,732 52,959 64,522 76,433 88,701 101,337 114,352 114,352 104,377 94,103 83,520 72,620 61,393 49,830 37,919 25,651 13,015
2010 / · · · · · · · · · · · · · · · · · ·		1,244,857

SURGARY SHEET ITEMS 6 AND 7.

TABLE - 5 - TOTAL CONSTRUCTION COSTS DEFERRED

YEAR	DEPERRED	COSTS PER	TOTAL CONSTRUCTION COSTS DEFERRED
1991	1,152	721	830,592
1992	1,187	760	901,707
1993	1,222	801	978,911
1994	1,259	844	1,062,726
1995	1,297	890	1,153,716
1996	1,335	938	1,252,498
1997	1,376	989	1,359,737
1998	1,417	1,042	1,476,157
1999	1,459	1,098	1,602,546
2000	1,503	1,157	1,739,756

SUDMARY SERRET ITEM A

### CONSTRUCTAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

### FUEL SAVINGS - OIL

YEAR	REDUCED	19.6% OIL	KW/BBL	\$/BBL	AVOIDED
1991	9,975,000	1,955,100	613	20.50	65,383
1992	20,249,250 30,831,728	3,968,853 6,043,019	613 613	21.32 22.17	138,036 218,582
1994	41,731,680 52,958,630	8,179,409 10,379,891	613 613	23.06 23.98	307,691 406,087
1996	64,522,389	12,646,388	613	24.94	514,549
1997	76,433,061 88,701,053	14,980,880	613 613	25.94 26.98	633,915 765,088
2000	101,337,085	19,862,069	613 613	28.06 29.18	909,043 1,066,827
2001	114,352,198	22,413,031	613	30.35	1,109,500
2002	94,102,948	20,457,931	613 613	31.56	1,053,227 987,536
2004	83,520,470 72,620,518	16,370,012	613	34.13	911,540 824,281
2006	61,393,568	12,033,139	613	36.92	724,724
2007	49,829,809 37,919,137	7,432,151	613 613	38.40	611,747 484,144
2009	25,651,145 13,015,113	5,027,624 2,550,962	613 613	41.53	340,609 179,734
TOTAL					12,252,244

#### FUEL SAVINGS - COAL

YEAR	PEDUCED	* 80.4% COAL	KW/TON	\$/TON	AVOIDED COSTS
1991	9,975,000	8,019,900	2,076	42.00	162,252
1992	20,249,250	16,280,397	2,076	43.26	339,253
1993	30,831,728	24,788,709	2,076	44.56	532,047
1994	41,731,680	33,552,271	2,076	45.89	741,747
1995	52,958,630	42,578,739	2,076	47.27	969,535
1996	64,522,389	51,876,001	2,076	48.69	1,216,675
1997	76,433,061	61,452,181	2,076	50.15	1,484,508
1998	88,701,053	71,315,647	2,076	51.65	1,774,465
1999	101,337,085	81,475,016	2,076	53.20	2,088,066
2000	114,352,198	91,939,167	2,076	54.80	2,426,932
2001	114,352,198	91,939,167	2,076	56.44	2,499,740
2002	104,377,198	83,919,267	2,076	58.14	2,350,137
2003	94,102,948	75,658,770	2,076	59.88	2,182,368
2004	83,520,470	67,150,458	2,076	61.68	1,995,055
2005	72,620,518	58,386,896	2,076	63.53	1,786,728
2006	61,393,568	49,360,429	2,076	65.43	1,555,820
2007	49,829,809	40,063,166	2,076	67.40	1,300,657
2008	37,919,137	30,486,986	2,076	69.42	1,019,458
2009	25,651,145	20,623,521	2,076	71.50	710,321
2010	13,015,113	10,464,151	2,076	73.65	371,222
TOTAL	187				27,506,984

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### COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

### ANNUAL FUEL CONSUMPTION - NATURAL GAS

1 6	A STATE OF THE STA			
YEAR.	CONSUMED	CUMULATIVE	\$/THERM	TOTAL COSTS
1991	317,400	317,400	0.2864	90,903
1992	326,922	644,322	0.2950	190,070
1993	336,730	981,052	0.3038	298,084
1994	346,832	1,327,883	0.3130	415,570
1995	357,236	1,685,120	0.3223	543,191
1. 2. 2. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		2,053,073	0.3320	681,653
1996	367,954		0.3420	831,709
1997	376,992	2,432,065		994,160
1998	390,362	2,822,427	0.3522	
1999	402,073	3,224,500	0.3628	1,169,858
2000	414,135	3,638,635	0.3737	1,359,711
2001		3,638,635	0.3849	1,400,502
2002		3,321,235	0.3964	1,316,686
2003	1 m	2,994,313	0.4083	1,222,692
2004	He	2,657,583	0.4206	1,117,748
2005	·* 4	2,310,752	0.4332	1,001,031
2006		1,953,515	0.4462	871,662
2007		1,585,562	0.4596	728,705
2008		1,206,570	0.4734	571,161
2009	. B.	816,208	0.4876	397,964
2010	L MA	414,135	0.5022	207,980

### MATURAL GAS FUEL COST - DISPLACEMENT DISTRIBUTION

YEAR GAS CO		80.4% COAL
	E-S	
1991 90,9	03 17,817	73,086
1992 190,0		152,816
1993 298,0		239,660
1994 415,5		334,119
1995 543,1		436,726
		548,049
		668,694
1997 831,7		799,305
1998 994,1		940,566
1999 1,169,8		
2000 1,359,7	11 266,503	1,093,208
2001 1,400,5		1,126,004
2002 1,316,6		1,058,615
2003 1,222,6		983,044
2004 1,117,7		898,669
2005 1,001,0		804,829
2006 871,6	62 T/0,640	700,816
2007 728,7	05 142,826	585,879
2008 571,1		459,213
2009 397,9		319,963
2010 207,9		167,216
TOTAL	3,020,564	12,390,477

### COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

TABLE - 6 - FUEL SAVINGS OIL

YEAR OIL COST		Fuel Savings
1991 65,38	3 17,817	47,566
1992 - 138,03		100,782
1993 47 218,58		160,157
1994 307,69		226,239
1995 406,08	7 106,465	299,622
1996 514,54	9 133,604	380,945
1997 633,91		470,900
1998 765,08		570,233
1999 909,04	3 229,292	679,751
2000 1,066,82		800,324
2001 1,109,50		835,002
2002 1,053,22		795,157
2003 987,53		747,888
2004 911,54		692,461
2005 824,28		628,079
2006 724,72		. 553,878
2007 611,74		468,921
2008 484,14		372,197
2009 340,60		262,608
2010 179,73		138,970
And the second s		9,231,680
1 3		

SUMMARY SHEET ITEN 9A

TABLE - 7 - FUEL SAVINGS COAL

YEAR OIL COSTS	GAS COSTS	Puel Savings
1991 162,252	73,086	89,166
1992 339,253	152,816	186,437
1993 532,047	239,660	292,387
1994 741,747	334,119	407,628
1995 969,535	436,726	532,809
1,216,675	548,049	668,626
1997 1,484,508	668,694	815,814
1998 1,774,465	799,305	975,160
1999 2,088,066	940,566	1,147,500
2,426,932	1,093,208	1,333,724
2001 2,499,740	1,126,004	1,373,736
2002 2,350,137	1,058,615	1,291,522
2003 2,182,368	983,044	1,199,324
2004 1,995,055	898,669	1,096,386
2005 1,786,728	804,829	981,899
2006 1,555,820	700,816	855,004
2007 1,300,657	585,879	714,778
2008 1,019,458	459,213	560,245
2009 710,321	319,963	390,358
2010 371,222	167,216	204,006
40.3		
		15,116,509
V 100 / 750 h 17600 h 1		

SUDMARY SHEET ITEM OR

4

### COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

TABLE - 8 - TOTAL SAVINGS

25 25 2				
YEAR	COMSTRUCTION	SAVINGS	COAL	TOTAL SAVINGS
(				
100	A Charles		** ***	042 224
1991	830,592	47,566	89,166	967,324
1992	901,707	100,782	186,437	1,188,926
1993	978,911	160,157	292,387	1,431,455
1994	1,062,726	226,239	407,628	1,696,593
1995	1,153,716	299,622	532,809	1,986,147
1996	1,252,498	380,945	668,626	2,302,069
1997	1,359,737	470,900	815,814	2,646,451
1998	1,476,157	570,233	975,160	3,021,550
1999	1,602,546	679,751	1,147,500	3,429,797
2000	1,739,756	800,324	1,333,724	3,873,804
The second second second			1,373,736	2,208,738
2001	N ARTHUR VIVE	835,002		
2002	1000	795,157	1,291,522	2,086,679
2003	100 miles	747,888	1,199,324	1,947,212
2004	V V	692,461	1,096,386	1,788,847
2005		628,079	981,899	1,609,978
2006	Â.;	553,878	855,004	1,408,882
2007	18 P	468,921	714,778	1,183,699
2008		372,197	560,245	932,442
2009	100,100	262,608	390,358	652,966
2010	4.9 (2.5)	138,970	204,006	342,976
-070	- T	230,370	204,000	240/2/0

### TABLE - 9 - MET PRESENT VALUE OF TOTAL PROGRAM

YEAR	TOTAL	DISCOURT RATE	PRESENT VALUE
1991	967,324	1.0000	967,324
1992	1,188,926	0.9054	1,076,454
1993	1,431,455	0.8197	1,173,364
1994	1,696,593	0.7422	1,259,211
1995	1,986,147	0.6720	1,334,691
1996	2,302,069	0.6084	1,400,579
1997	2,646,451	0.5508	1,457,665
1998	3,021,550	0.4987	1,506,847
1999	3,429,797	0.4515	1,548,553
2000	3,873,804	0.4088	1,583,611
2001	2,208,738	0.3701	817,454
2002	2,086,679	0.3351	699,246
2003	1,947,212	0.3034	590,784
2004	1,788,847	0.2747	491,396
2005	1,609,978	0.2487	400,402
2006	1,408,882	0.2252	317,280
2007	1,183,699	0.2039	241,356
2008	932,442	0.1846	172,129 109,111
2009	652,966	0.1671	51,892
2010	342,976	0.1513	31,072
TOTAL			17,199,349
	45		

# COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

A STANDARD

### WEST FLORIDA NATURAL GAS COMPANY RATEPAYER BENEFITS

# COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM RESULTS FROM ALLOWANCE PROGRAM

### Estimated Gas Company Expanditures

	A CAMERIA OF THE PROPERTY OF T	
	1. Personnel Costs	\$180,556
-	2. Actientising Costs	\$120,371
	3. Installation Allowences	\$1,031,749
	4. Total Costs	\$1,332,676
	5. Present Value of Total Costs	\$866,197
Pr	nears Value of Total Program Benefits	
5	6. Present Value Benefits	\$4,174,781
à.	7. Present Value of Total Costs	\$866,197
	8. Line 6 - Line 7	\$3,308,564
84	nelt/Cost Ratio from Cumulative Totals	
	Line 6 / Line 7	4.82 TO 1
D	ecount Payback	
	Line 7 / Line 6 (Years)	.21 YRS

### GAS RATEPAYERS COST EFFECTIVENESS ANALYSIS

### LIST OF ASSUMPTIONS

### COMMERCIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

1.	1991 Program Personnel Costs. Escalation Rate - Personnel Costs.	\$15,750 3.0%	
w	1991 Advertising Costs. Escalation Rate - Advertising Costs.	\$10,500 3.0%	
(Antico	Applicable Non-Ges Energy Charge. Escalation Rate - Non-Ges Energy Charge.	\$0.1362 0.0%	
	Average Natural Gas Annual Therm Consumption per Installed Appliance	2645	THR
4	Period of Appliance Use.	10	YRS
<b>6</b> , a	Discount Rate or Rate of Time Preference	10.45%	ΛΉ
7.	Appliances Installed During Program 1st Year Escalation Rate	120 3.0%	
300	Average Allowance per Customer	\$750	
	Demand Charges (S/TH)	\$0.02284	
10.	Monthly Service Charge	\$15	
11.	Heat Only Disconnect Period (Months)	6	
12	Cost to Cap Service at Main Escalation Rate	\$125 3.0%	
13,	Cost to Run Service from Main/Set Regulator and Meter Cost to Set Regulator and Meter Only Escalation Rate	\$510 \$195 3.0%	

### 14. Installation Distribution:

Heat Only 5.0% Reactivete 2.0% New on Main 53.0% Added Load 40.0%

### MUMERIC OF APPLIANCES INSTALLED

YEAR	APPLIANCES INSTALLED	IN SERVICE
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003	120 124 127 131 135 139 143 146 152 157	120 244 371 502 637 776 919 1,067 1,219 1,376 1,376 1,376
2004 2005 2006 2007 2008 2009 2010		1,376 1,376 1,376 1,376 1,376 1,376 1,376

1 - PROGRAM COSTS

YEAR	PERSONNET. COSTS	ADVERTISING COSTS	INSTALLATION ALLOWANCES	TOTAL
1991	15,750	10,500	90,000	116,250
1992	16,223	10,815	92,700 95,481	119,738 123,330
1994 1995	17,727	11,474	98,345 101,296	127,030 130,840
1996	18,259	12,172 12,538	104,335	134,766 138,809
1998	19,371	12,914	110,689	142,973 147,262
2000	20,550	13,700	117,430	151,680
TOTAL	180,556	120,371	1,031,749	1,332,676

SUMMARY SHEET ITEMS 1, 2, 3 AND 4

TABLE 2 - PRESENT VALUE OF TOTAL COSTS

YEAR	TOTAL	DISCOUNT FACTOR	PRESENT VALUE
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	116,250 119,738 123,329 127,029 130,841 134,766 138,809 142,974 147,262 151,680	1.00000 0.90539 0.81973 0.74217 0.67195 0.60838 0.55081 0.49870 0.45152 0.40880	116,250 108,410 101,096 94,277 87,919 81,989 76,457 71,301 66,492 62,007
TOTAL	1,332,670		866,198

#### SUMMARY SHEET ITEM 5

TABLE 3 - ESTIMATED NUMBER OF THERMS ADDED

YEAR	THEROIS ADOED	THERMS CUMULATIVE	GROSS MARGIN	TOTAL MARGIN
1991	317,400	317,400	0.12928	41,033
1992	327,980	645,380	0.12928	83,435
1993	335,915	981,295	0.12928	126,862
1994	346,495	1,327,790	0.12928	171,657
1995	357,075	1,684,865	0.12928	217,819
1996	367,655	2,052,520	0.12928	265,350
1997	378,235	2,430,755	0.12928	314,248
1998	391,460	2,822,215	0.12928	364,856
1999	402,040	3,224,255	0.12928	416,832
2000	415,265	3,639,520	0.12928	470,517
2001		3,639,520	0.12928	470,517
2002		3,639,520	0.12928	470,517
2003		3,639,520	0.12928	470,517
2004		3,639,520	0.12928	470,517
2005		3,639,520	0.12928	470,517
2006		3,639,520	0.12928	470,517
2007		3,639,520	0.12928	470,517
2008	5	3,639,520	0.12928	470,517
2009	1.	3,639,520	0.12928	470,517
2010	,	3,639,520	0.12928	470,517
2011		3,639,520	0.12928	470,517
TOTAL	3,639,520			7,648,297

MEN SERVICE & METER SETS
TABLE 4 - OPERATING COSTS & SAVINGS

YEAR	COSTS	CUT & CAP SAVINGS	"B" NET
1991	32,904	300	(32,604)
	34,908	309	(34,599)
1992		318	(36,715)
1993	37,034 39,289	328	(38,961)
1995	41,682	338	(41,344)
1996	44,220	348	(43,872)
1997	46,913	358	(46,555)
1998	49,770	369	(49,401)
1999	52,801	380	(52,421)
2000	56,017	391	(55,625)
TOTAL	435,538	3,439	(432,099)

TABLE 5 - DESCAND DISPLACEMENT CHARGES AND CUSTOMER SERVICE CHARGES

YEAR	APPLIANCES IN SERVICE	DENAND DISPLACE	CUST SERVICE CHARGE	TOTAL CONTRIB.
1991	120	7,249	21,060	28,309
1992	244	14,740	43,380	58,120
1993	371	22,413	66,240	88,653
1994	502	30,327	89,820	120,147
1995	637	38,482	114,120	152,602
1996	776	46,880	139,140	186,020
1997	919	55,518	164,880	220,398
1998	1,067		191,520	255,979
1999	1 210	73,642	218,880	292,522
2000	1,376	83,127	247,140	330,267
2001	1,376	83,127	247,140	330,267
2002	1,376	83,127	247,140	330,267
2003	1,376	83,127	247,140	330,267
2004	1,376	83,127	247,140	330,267
2005	1,376	83,127	247,140	330,267
2006	1,376	83,127	247,140	330,267
2007	1,376	83,127	247,140	330,267
2008	1,376	83,127	247,140	330,267
2009	1,376	83,127	247,140	330,267
2010	1,376	83,127	247,140	330,267
2011	1,376	83,127	247,140	330,267
TOTAL	N.	1,351,231	4,014,720	5,365,951

Table 6 - Present value of total program

YEAR CONTRIB.	DISCOURT FACTOR	PRESENT VALUE
1991 36,738 1992 106,957	1.00000	36,738 96,837
1993 178,799	0.81973	146,567
1994 252,642	0.74217	187,652
1995 329,077	0.67195	221,123
1996 407,497	0.60838	247,913
1997 488,091	0.55081	268,846
1998 571,434	0.49870	284,974
1999 686,933	0.45152	296,618
2000 745,158	0.40880	304,621
2001 800,784	0.37012	296,386
2002 800,784	0.33510	268,343
2003 800,784	0.30340	242,958
2004 800,784	0.27469	219,967
2005 800,784	0.24870	199,155
2006 4 800,784	0.22517	180,312
2007 800,784	0.20387	163,256 147,809
2008 800,784	0.18458 0.16712	133,827
2009 800,784	0.15130	121,159
2010 800,784 2011 800,784	0.13699	109,699
TOTAL 12,502,146		4,174,761

SUBSIDERY SHEET ITEM MUMBER

### **ADVERTISING AND PROMOTION**

### Program Description

Aggressive advertising and promotional programs will be necessary to attain the goals of the West Florida Natural Gas Company Conservation Plan. Through the use of offsothe advertising, West Florida Natural Gas will promote the careful use of natural gas to existing, as well as potential customers. Concentration will be on natural gas energy conservation and the importance of belancing fuel mix and energy use along with reducing Idiowatt demand and Idiowatt hour consumption.

### II. Program Participation

Through the vertous media available, West Florida Natural Gas advertising will concentrate on promoting the use of natural gas and natural gas appliances, as well as the need to conserve scarce resources.

Broadcast: Selective conservation advertising in the Panama City and Ocale markets.

Newspepers/

Magazines: Conservation promotion advertising.

Print: Individual promotions

- bill enclosures
- consumer education and conservation handout material

- Appliance Replacement Program
- Builder Program
- Energy Savings Payback Program

Personal Accessances:

By Marksting and Customer Service Staff.

The advertising and promotional echedules and costs are addressed within the individual programs.

## WEST FLORIDA NATURAL GAS COMPANY CUMULATIVE IMPACT OF CONSERVATION PROGRAM

Year	Avoided Capacity	Annual KWH Reduced
1901	8,616	21,908,385
1992	9,013	22,840,113
1993	9,442	23,846,725
1004	9,911	24,940,895
1995	10,424	26,138,211
1998	10,968	27,457,891
1997	11,614	28,923,661
1998	12,625	31,000,583
1900	13,473	32,938,525
2000	14,435	35,140,332

### PROGRAM MONITORING, EVALUATION, AND RESEARCH DEMONSTRATION

The projected costs and benefits of West Florida Natural Gas Company's Energy conservation programs will be affected by the numbers of participating customers and the extent of their participation, as well as the assumptions used in estimating costs and savings to be derived from the programs. Many of the assumptions used in these calculations were provided by Peoples Gas System, Inc. For example, the assumed reductions in electric KW demand resulting from replacement of electric resistance appliances with natural gas appliances were established in the early 1980's after discussions between representatives of Peoples and Florida investor-owned electric utilities.

Peoples has already established Energy Conservation Program monitoring criteria for the three climate zones defined in the Florida Energy Efficiency Code for Building Construction. To avoid duplication of efforts, Peoples has agreed to share the data for West Florida's service area (zones two and three).

West Florida Natural Gas will oversee its energy conservation programs as follows:

- Program costs recoverable through the Commission-approved energy conservation cost recovery clause will be monitored and evaluated as required by the Commission's rules and orders entered in the conservation cost recovery docket.
- Accurate records will be maintained by West Florida Natural Gas to document the numbers and types of natural gas appliances installed by participating customers

under various programs.

- 3. Peoples will evaluate the KW demand and Kwh consumption attributable to various electric appliances which are replaced by natural gas appliances throughout the course of the programs through consultation with representatives of electric utilities and appliance manufacturers. West Florida will compare this data to its assumptions in order that such assumptions might be modified or refined to reflect changes in appliance efficiency and take into consideration the effect of KW demand diversity on the overall cost effectiveness of the conservation programs.
- 4. Peoples will monitor on a statistical sampling basis (where authorization can be obtained from participating customers) the actual electric consumption of selected customers for the 18 months preceding and the 18 months following a customer's installation of natural gas appliances. This will permit consumption comparisons between the two periods, and may suggest the need to modify Kwh consumption estimates impacting the benefits to be derived from certain of West Florida Natural Gas' conservation programs.
- West Florida Natural Gas will also use Peoples' data to monitor, in the manner described in paragraphs 3 and 4 above, the gas consumption of the various gas appliances involved in its energy conservation programs.
- West Florida Natural Gas' conservation programs may, in some instances, cause the Company to incur expenses (such as installation of service lines and/or meters/regulators) in order to provide service to new customers. Some of these

costs (such as the examples given above) are recoverable by West Florida Natural Gas through base rates, rather than through the conservation cost recovery clause. West Florida Natural Gas, through use of Peoples' data, will monitor these costs on an ongoing basis in order to be able to demonstrate the cost effectiveness of its conservation programs to its own ratepayers.

7. West Florida Natural Gas will use Peoples' monitoring tests (in two of the three climate zones defined in the Florida Energy Efficiency Code for Building Construction) to determine the most accurate "actual" consumption of residential customers using natural gas (a) water heating only, (b) house heating only, (c) house heating and water heating, and (d) house heating, water heating, and cooking. These homes will, with the cooperation of the electric utilities which service the erees in providing appropriate data, be compared to "all electric" homes in the two climate zones, some with heat pumps and some with electric resistance heating. Similar monitoring will be conducted with respect to commercial sector customers using gas for water heating, air conditioning and desicoant cooling.

The Information collected by Peoples in monitoring its programs, described above and shared with this company, will enable West Florida Natural Gas to more accurately seess the costs incurred and benefits derived from West Florida Natural Gas' energy conservation programs by both the electric and gas ratepayers.

### REVIDED

West Floride Natural Gas will also work in cooperation with the Gas Research institute to demonstrate prototype technologies emerging in the marketplace.

Accurate records will be maintained by West Florida Natural Gas, in cooperation with Peoples, to document gas consumption as well as the associated KW demand and Kwh consumption seved as a result of installation of various technologies under evaluation.

Since much of the required information will be available from Peoples Gas System.

West Florida's program monitoring, evaluation and research efforts is expected to be minimal. Peoples has agreed to share the information they gather for a service fee.