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ORIGINAL
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02 MAR 21 PM 3:44

COMMISSION
CLERK

March 21, 2002

BY HAND DELIVERY

Ms. Blanca Bayó, Director
The Commission Clerk and Administrative Services
Room 110, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

020302-GV

Dear Ms. Bayó:

Enclosed for filing on behalf of Florida Public Utilities Company are an original and fifteen copies of Florida Public Utilities Company's Petition for Expansion of Energy Conservation Programs and Factors.

Please acknowledge receipt of this letter by stamping the extra copy of this letter "filed" and returning the same to me.

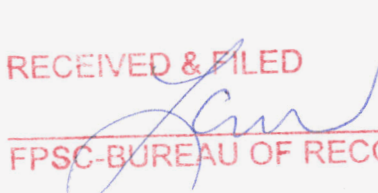
Thank you for your assistance with this filing.

Sincerely yours,


Norman H. Horton, Jr.

NHH/amb
Enclosures
cc: Mr. Wayne Makin

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FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE

03295 MAR 21 8

FPSC-COMMISSION CLERK

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition by Florida Public Utilities)
for approval of expansion of energy conservation)
programs and collection of cost recovery factors)
_____)

Docket No. _____
Filed: March 21, 2002

**PETITION FOR EXPANSION OF ENERGY
CONSERVATION PROGRAMS AND FACTORS**

COMES NOW, Florida Public Utilities Company ("FPUC"), through its undersigned and requests an expansion of the energy conservation programs to customers in New Smyrna and as basis states:

1. FPUC is a public utility providing natural gas service to customers. The address for FPUC is:

Florida Public Utilities Company
401 South Dixie Highway
West Palm Beach, FL 33401

Copies of notices regarding this petition should be served on:

Norman H. Horton, Jr.
Messer, Caparello & Self, P.A.
P.O. Box 1876
Tallahassee, FL 323-201876
(850)222-0720

Ms. Cheryl Martin
Florida Public Utilities Company
P.O. Box 3395
West Palm Beach, FL 33402-3395
(561)838-1725

2. By Order No. PSC-00-1663-PAA-EG, issued September 18, 2000 in Docket 000721-EG, the Commission approved eight (8) energy conservation programs for FPUC together with the recovery of costs associated with these approved programs. The programs are effective in and available throughout the service areas of FPUC and are of benefit to the customers of FPUC.

3. On December 14, 2001, FPUC completed a transaction whereby FPUC acquired the assets and operations of South Florida Natural Gas ("SFNG") which provided natural gas

service to customers in Volusia County. Since the closing, FPUC has been providing service to the former SFNG customers and is consolidating the operations of the companies. As a result of the acquisition, the former customers of SFNG now are eligible for the programs offered by FPUC and payment of the energy conservation factor and are receiving the benefits of the programs as are all other customers of FPUC. Since the programs are available to these customers, FPUC requests that the energy conservation factor also be applicable to the former SFNG customers.

4. To support this request, FPUC has prepared and attached hereto schedules reflecting the calculation of the cost recovery factor and summarizing the cost effectiveness of the programs updated to include the former SFNG customers. Exhibits "A" and "B" are schedules which accompanied the initial submission approved by the Commission updated with the inclusion of these customers, Exhibit "C" is the calculation of the factor with these customers and Exhibit "D" is a program description and summary of the programs approved by the Commission and now available to these former SFNG customers.

5. FPUC requests that the Commission approve this request and permit the collection of the energy conservation factor from these customers since they now receive the benefits of the conservation program to the same extent as other customers of FPUC.

Respectfully submitted,

MESSER, CAPARELLO, & SELF, P. A.
Post Office Box 1876
Tallahassee, FL 32302-1876
(850) 222-0720


NORMAN H. HORTON, JR., ESQ.

Attorneys for Florida Public Utilities Company

**FLORIDA PUBLIC UTILITIES COMPANY
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios**

Full House Residential New Construction Program

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	300	14.39	2.53
Furnace	300	6.37	2.77
Clothes Dryer	85	1.46	3
Range	85	1.17	6.79

Rate Impact Measure Test Data

All Costs in 2002 dollars. Analysis Start Year: 2001 Number of Years: 20

Gas Program: Full House Residential New Construction Program Gas Rate Number

Electric Rate Number

Gas Measure:	Water Heater New Customer, New Dwelling New Main	40 gallon	Alternate Option:	Electric Resistance Water Heater	50 gallon
Allowance:	\$300		Alt FuelType:	Electric	
Gas Utility:	Florida Public Utilities Company		Electric Utility:	Utilities Commission of NSB	

IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$300
6. Program Cost	\$0
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.88	.88
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor	1.00		
Therms Displaced	Winter	Summer	Total
2. Standard Rate	0.00	0.00	0.00
Total	0.00	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			
3. Consumed Existing			
4. Displaced			

	\$
1. Avoided Meter Removal Cost	\$0
2. Avoided Cut & Cap Cost	0
Total Costs	\$0

II. Operating Data

1. Energy Factor	0.56
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Therms Consumed	Winter	Summer	Total
2. Standard Rate	72.0	48.0	120.0
3. Seasonal Rate			0.0
Total	72.0	48.0	120.0

Gas Rates	Rate
3. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000

13. Customer Chg	\$7.00
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14. Ratio of Therms Consumed to Total	28.80%
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15. Average Life	12
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III. Common Gas & Electric Data

1. Discount Rate	7.97%
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Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Facilities O&M	Gas Supply Cost	Program & Allowance Cost	Water Total Columns 5 thru 8
	Table 1	Table 2		Table 3	Table 4	Table 5		
1	2	3	4	5	6	7	8	9
	\$	\$	\$	\$	\$	\$	\$	\$
2002	109	24	133	13	30	0	300	343
2003	112	25	137	12	30	0		42
2004	115	26	141	12	29	0		41
2005	119	26	145	12	28	0		40
2006	122	27	149	11	28	0		39
2007	126	28	154	11	28	0		39
2008	130	29	159	10	27	0		38
2009	134	30	164	10	27	0		37
2010	138	31	169	10	27	0		36
2011	142	32	174	9	26	0		36
2012	146	33	179	9	26	0		35
2013	151	33	184	9	26	0		35
2014	155	34	189	9	26	0		34
2015	160	36	196	8	25	0		34
2016	165	37	202	8	25	0		33
2017	169	38	207	8	25	0		32
2018	175	39	214	7	24	0		32
2019	180	40	220	7	24	0		31
2020	185	41	226	7	24	0		31
2021	191	42	233	7	23	0		30

Present Value
of Benefits

\$1,634

\$647

Benefit/Cost
Ratio

2.53

Table 1

Water Heater

1	2	3	4	5	5*2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	120	0.58654	0.34000	0.92654	109
2003	120	0.58354	0.35020	0.93374	112
2004	120	0.60104	0.36071	0.96175	115
2005	120	0.61907	0.37153	0.99060	119
2006	120	0.63765	0.38267	1.02032	122
2007	120	0.65678	0.39415	1.05093	126
2008	120	0.67648	0.40598	1.08246	130
2009	120	0.69677	0.41816	1.11493	134
2010	120	0.71768	0.43070	1.14838	138
2011	120	0.73921	0.44362	1.18283	142
2012	120	0.76138	0.45693	1.21831	146
2013	120	0.78422	0.47064	1.25486	151
2014	120	0.80775	0.48476	1.29251	155
2015	120	0.83198	0.49930	1.33128	160
2016	120	0.85694	0.51428	1.37122	165
2017	120	0.88265	0.52971	1.41236	169
2018	120	0.90913	0.54560	1.45473	175
2019	120	0.93640	0.56197	1.49837	180
2020	120	0.96450	0.57883	1.54332	185
2021	120	0.99343	0.59619	1.58962	191

Table 2

Water Heater

1	2	3	4	4*3
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	7.00	84.00	28.80%	\$24
2003	7.21	86.52	28.80%	\$25
2004	7.43	89.12	28.80%	\$26
2005	7.65	91.79	28.80%	\$26
2006	7.88	94.54	28.80%	\$27
2007	8.11	97.38	28.80%	\$28
2008	8.36	100.30	28.80%	\$29
2009	8.61	103.31	28.80%	\$30
2010	8.87	106.41	28.80%	\$31
2011	9.13	109.60	28.80%	\$32
2012	9.41	112.88	28.80%	\$33
2013	9.69	116.28	28.80%	\$33
2014	9.98	119.76	28.80%	\$34
2015	10.28	123.36	28.80%	\$36
2016	10.59	127.06	28.80%	\$37
2017	10.91	130.87	28.80%	\$38
2018	11.23	134.80	28.80%	\$39
2019	11.57	138.84	28.80%	\$40
2020	11.92	143.00	28.80%	\$41
2021	12.27	147.29	28.80%	\$42

Table 4

Water Heater

1	2	3	4	5	6	7	8	6*7*8*3*8
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	1	16	104	50	154	57.00	28.80%	30
2003	1	17	101	49	150	57.00	28.80%	30
2004	1	17	98	48	146	57.00	28.80%	29
2005	1	18	95	47	142	57.00	28.80%	28
2006	2	18	93	46	139	57.00	28.80%	28
2007	2	19	91	45	136	57.00	28.80%	28
2008	2	19	89	44	133	57.00	28.80%	27
2009	2	20	87	43	130	57.00	28.80%	27
2010	2	20	85	42	127	57.00	28.80%	27
2011	2	21	83	41	124	57.00	28.80%	26
2012	2	22	81	40	121	57.00	28.80%	26
2013	2	22	79	39	118	57.00	28.80%	26
2014	2	23	77	38	115	57.00	28.80%	26
2015	2	24	75	37	112	57.00	28.80%	25
2016	2	24	73	36	109	57.00	28.80%	25
2017	2	25	71	35	106	57.00	28.80%	25
2018	2	26	69	34	103	57.00	28.80%	24
2019	2	27	67	33	100	57.00	28.80%	24
2020	2	27	65	32	97	57.00	28.80%	24
2021	2	28	63	31	94	57.00	28.80%	23

Table 3

Water Heater

1	2	3	4	5	6	7	8	7*6*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
2002	50	104	366	86	7.40%	608	28.80%	\$13
2003	49	101	352	83	7.40%	585	28.80%	\$12
2004	48	98	338	80	7.40%	564	28.80%	\$12
2005	47	95	325	77	7.40%	544	28.80%	\$12
2006	46	93	312	74	7.40%	525	28.80%	\$11
2007	45	91	300	71	7.40%	507	28.80%	\$11
2008	44	89	288	69	7.40%	490	28.80%	\$10
2009	43	87	277	67	7.40%	474	28.80%	\$10
2010	42	85	266	65	7.40%	458	28.80%	\$10
2011	41	83	256	63	7.40%	443	28.80%	\$9
2012	40	81	246	61	7.40%	428	28.80%	\$9
2013	39	79	236	59	7.40%	413	28.80%	\$9
2014	38	77	227	57	7.40%	398	28.80%	\$9
2015	37	75	218	55	7.40%	385	28.80%	\$8
2016	36	73	209	53	7.40%	371	28.80%	\$8
2017	35	71	201	51	7.40%	358	28.80%	\$8
2018	34	69	193	49	7.40%	345	28.80%	\$7
2019	33	67	185	47	7.40%	332	28.80%	\$7
2020	32	65	178	45	7.40%	320	28.80%	\$7
2021	31	63	171	43	7.40%	308	28.80%	\$7

Table 5

Water Heater

1	2	3	4	5	6	7	137
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	120	72	48	0.0000	0.0000	1.00	\$0
2003	120	72	48	0.0000	0.0000	1.00	\$0
2004	120	72	48	0.0000	0.0000	1.00	\$0
2005	120	72	48	0.0000	0.0000	1.00	\$0
2006	120	72	48	0.0000	0.0000	1.00	\$0
2007	120	72	48	0.0000	0.0000	1.00	\$0
2008	120	72	48	0.0000	0.0000	1.00	\$0
2009	120	72	48	0.0000	0.0000	1.00	\$0
2010	120	72	48	0.0000	0.0000	1.00	\$0
2011	120	72	48	0.0000	0.0000	1.00	\$0
2012	120	72	48	0.0000	0.0000	1.00	\$0
2013	120	72	48	0.0000	0.0000	1.00	\$0
2014	120	72	48	0.0000	0.0000	1.00	\$0
2015	120	72	48	0.0000	0.0000	1.00	\$0
2016	120	72	48	0.0000	0.0000	1.00	\$0
2017	120	72	48	0.0000	0.0000	1.00	\$0
2018	120	72	48	0.0000	0.0000	1.00	\$0
2019	120	72	48	0.0000	0.0000	1.00	\$0
2020	120	72	48	0.0000	0.0000	1.00	\$0
2021	120	72	48	0.0000	0.0000	1.00	\$0

Rate Impact Measure Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction PI Gas Rate Number

Electric Rate Number

Gas Measure:	Furnace New Customer, New Dwelling New Main	Alternate Option:	Electric Resistance Furnace
		Alt FuelType:	Electric
Allowance:	\$300		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

	\$
1. Avoided Meter Removal Cost	\$0
2. Avoided Cut & Cap Cost	0
Total Costs	\$0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	150.0	0.0	150.0
3. Seasonal Rate			0.0
Total	150.0	0.0	150.0

Gas Rates	Rate
5. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000

13. Customer Chg \$7.00

14. Ratio of Therms Consumed to Total 35.90%

15. Average Life 18

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606

5. Utility Allowance	\$300
6. Program Cost	\$0
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	
Gas Supply Cost \$/Therm	
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0

System Shrinkage

VI. Therms Conserved	New	Existing
1. Energy Factor	1.00	1
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced		
1. Energy Factor		1.00

Therms Displaced	Winter	Summer
2. Standard Rate	0.00	0.00
Total	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer
1. Consumed	0.07671	0.07671
2. Consumed New		
3. Consumed Existing		
4. Displaced		

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Total Columns 2 thru 3 4	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Facilities O&M Table 4	Gas Supply Cost Table 5	Program & Allowance Cost 8	Heating Total Columns 6 thru 9 9
1	2 \$	3 \$	4 \$	5 \$	6 \$	7 \$	8 \$	9 \$
2000	136	30	166	16	37	0	300	353
2001	140	31	171	16	37	0		52
2002	144	32	176	15	36	0		51
2003	149	33	182	14	36	0		50
2004	153	34	187	14	35	0		49
2005	158	35	193	13	35	0		48
2006	162	36	198	13	34	0		47
2007	167	37	204	13	34	0		46
2008	172	38	210	12	33	0		45
2009	177	39	216	12	33	0		45
2010	183	41	224	11	33	0		44
2011	188	42	230	11	32	0		43
2012	194	43	237	11	32	0		42
2013	200	44	244	10	32	0		42
2014	206	46	252	10	31	0		41
2015	212	47	259	10	31	0		40
2016	218	48	266	9	30	0		40
2017	225	50	275	9	30	0		39
2018	231	51	282	9	30	0		38
2019	238	53	291	8	29	0		37

Present Value
of Benefits \$2,042

\$738

Benefit/Cost
Ratio

2.77

Table 1

Furnace

1	2	3	4	5	5*2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	150	\$0.56654	\$0.34000	\$0.90654	136
2003	150	\$0.58354	\$0.35020	\$0.93374	140
2004	150	\$0.60104	\$0.36071	\$0.96175	144
2005	150	\$0.61907	\$0.37153	\$0.99060	149
2006	150	\$0.63765	\$0.38267	\$1.02032	153
2007	150	\$0.65678	\$0.39415	\$1.05093	158
2008	150	\$0.67648	\$0.40598	\$1.08246	162
2009	150	\$0.69677	\$0.41816	\$1.11493	167
2010	150	\$0.71768	\$0.43070	\$1.14838	172
2011	150	\$0.73921	\$0.44362	\$1.18283	177
2012	150	\$0.76138	\$0.45693	\$1.21831	183
2013	150	\$0.78422	\$0.47064	\$1.25486	188
2014	150	\$0.80775	\$0.48476	\$1.29251	194
2015	150	\$0.83198	\$0.49930	\$1.33128	200
2016	150	\$0.85694	\$0.51428	\$1.37122	206
2017	150	\$0.88265	\$0.52971	\$1.41236	212
2018	150	\$0.90913	\$0.54560	\$1.45473	218
2019	150	\$0.93640	\$0.56197	\$1.49837	225
2020	150	\$0.96450	\$0.57883	\$1.54332	231
2021	150	\$0.99343	\$0.59619	\$1.58962	238

Table 2

Furnace

1	2	3	4	4*3
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	7.00	84.00	35.90%	\$30
2003	7.21	86.52	35.90%	\$31
2004	7.43	89.12	35.90%	\$32
2005	7.65	91.79	35.90%	\$33
2006	7.88	94.54	35.90%	\$34
2007	8.11	97.38	35.90%	\$35
2008	8.36	100.30	35.90%	\$36
2009	8.61	103.31	35.90%	\$37
2010	8.87	106.41	35.90%	\$38
2011	9.13	109.60	35.90%	\$39
2012	9.41	112.89	35.90%	\$41
2013	9.69	116.28	35.90%	\$42
2014	9.98	119.76	35.90%	\$43
2015	10.28	123.36	35.90%	\$44
2016	10.59	127.06	35.90%	\$46
2017	10.91	130.87	35.90%	\$47
2018	11.23	134.80	35.90%	\$48
2019	11.57	138.84	35.90%	\$50
2020	11.92	143.00	35.90%	\$51
2021	12.27	147.29	35.90%	\$53

Table 4

Furnace

1	2	3	4	5	6	7	8	6*7*8*3*8
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	1	16	104	50	154	57.00	35.90%	37
2003	1	17	101	49	150	57.00	35.90%	37
2004	1	17	98	48	146	57.00	35.90%	36
2005	1	18	95	47	142	57.00	35.90%	36
2006	2	18	93	46	139	57.00	35.90%	35
2007	2	19	91	45	136	57.00	35.90%	35
2008	2	19	89	44	133	57.00	35.90%	34
2009	2	20	87	43	130	57.00	35.90%	34
2010	2	20	85	42	127	57.00	35.90%	33
2011	2	21	83	41	124	57.00	35.90%	33
2012	2	22	81	40	121	57.00	35.90%	33
2013	2	22	79	39	118	57.00	35.90%	32
2014	2	23	77	38	115	57.00	35.90%	32
2015	2	24	75	37	112	57.00	35.90%	32
2016	2	24	73	36	109	57.00	35.90%	31
2017	2	25	71	35	106	57.00	35.90%	31
2018	2	26	69	34	103	57.00	35.90%	30
2019	2	27	67	33	100	57.00	35.90%	30
2020	2	27	65	32	97	57.00	35.90%	30
2021	2	28	63	31	94	57.00	35.90%	29

Table 3

Furnace

1	2	3	4	5	6	7	8	7*6*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
2002	50	104	366	86	4.68%	606	35.90%	\$10
2003	49	101	352	83	4.68%	585	35.90%	\$10
2004	48	98	338	80	4.68%	564	35.90%	\$9
2005	47	95	325	77	4.68%	544	35.90%	\$9
2006	46	93	312	74	4.68%	525	35.90%	\$9
2007	45	91	300	71	4.68%	507	35.90%	\$9
2008	44	89	288	69	4.68%	490	35.90%	\$8
2009	43	87	277	67	4.68%	474	35.90%	\$8
2010	42	85	266	65	4.68%	458	35.90%	\$8
2011	41	83	256	63	4.68%	443	35.90%	\$7
2012	40	81	246	61	4.68%	428	35.90%	\$7
2013	39	79	236	59	4.68%	413	35.90%	\$7
2014	38	77	227	57	4.68%	399	35.90%	\$7
2015	37	75	218	55	4.68%	385	35.90%	\$6
2016	36	73	209	53	4.68%	371	35.90%	\$6
2017	35	71	201	51	4.68%	358	35.90%	\$6
2018	34	69	193	49	4.68%	345	35.90%	\$6
2019	33	67	185	47	4.68%	332	35.90%	\$6
2020	32	65	178	45	4.68%	320	35.90%	\$5
2021	31	63	171	43	4.68%	308	35.90%	\$5

Table 5

Furnace

1	2	3	4	5	6	7	137
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	150	150	0	0.0000	0.0000	1.00	\$0
2003	150	150	0	0.0000	0.0000	1.00	\$0
2004	150	150	0	0.0000	0.0000	1.00	\$0
2005	150	150	0	0.0000	0.0000	1.00	\$0
2006	150	150	0	0.0000	0.0000	1.00	\$0
2007	150	150	0	0.0000	0.0000	1.00	\$0
2008	150	150	0	0.0000	0.0000	1.00	\$0
2009	150	150	0	0.0000	0.0000	1.00	\$0
2010	150	150	0	0.0000	0.0000	1.00	\$0
2011	150	150	0	0.0000	0.0000	1.00	\$0
2012	150	150	0	0.0000	0.0000	1.00	\$0
2013	150	150	0	0.0000	0.0000	1.00	\$0
2014	150	150	0	0.0000	0.0000	1.00	\$0
2015	150	150	0	0.0000	0.0000	1.00	\$0
2016	150	150	0	0.0000	0.0000	1.00	\$0
2017	150	150	0	0.0000	0.0000	1.00	\$0
2018	150	150	0	0.0000	0.0000	1.00	\$0
2019	150	150	0	0.0000	0.0000	1.00	\$0
2020	150	150	0	0.0000	0.0000	1.00	\$0
2021	150	150	0	0.0000	0.0000	1.00	\$0

Rate Impact Measure Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction F Gas Rate Number Electric Rate Number

Gas Measure:	Dryer New Customer, New Dwelling New Main	Alternate Option:	Dryer
		Alt FuelType:	Electric
Allowance:	\$85		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of New Smyrna Beach

IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$85
6. Program Cost	\$0
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor		1.00
Therms Displaced	Winter	Summer
2. Standard Rate	0.00	0.00
Total	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer
1. Consumed	0.07671	0.07671
2. Consumed New		
3. Consumed Existing		
4. Displaced		

	\$
1. Avoided Meter Removal Cost	\$0
2. Avoided Cut & Cap Cost	0
Total Costs	\$0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	32.0	32.0	64.0
3. Seasonal Rate			0.0
Total	32.0	32.0	64.0

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
3. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000

13. Customer Chg \$7.00

14. Ratio of Therms Consumed to Total 15.30%

15. Average Life 13

III. Common Gas & Electric Data

1. Discount Rate 7.96%

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Facilities O&M	Gas Supply Cost	Program & Allowance Cost	Dryer Total Columns 6 thru 9
	Table 1	Table 2		Table 3	Table 4	Table 5		
1	2	3	4	5	6	7	8	9
	\$	\$	\$	\$	\$	\$	\$	\$
2002	49	13	62	4	16	0	85	105
2003	51	13	64	4	16	0		20
2004	52	14	66	4	15	0		19
2005	54	14	68	4	15	0		19
2006	56	14	70	4	15	0		19
2007	57	15	72	4	15	0		18
2008	59	15	74	4	15	0		18
2009	61	16	77	3	14	0		18
2010	63	16	79	3	14	0		17
2011	64	17	81	3	14	0		17
2012	66	17	83	3	14	0		17
2013	68	18	86	3	14	0		17
2014	70	18	88	3	14	0		16
2015	72	19	91	3	13	0		16
2016	75	19	94	3	13	0		16
2017	77	20	97	3	13	0		16
2018	79	21	100	2	13	0		15
2019	82	21	103	2	13	0		15
2020	84	22	106	2	13	0		15
2021	87	23	110	2	12	0		15

Present Value
of Benefits \$764

\$255

Benefit/Cost Ratio	3.00
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Table 1

Dryer

1	2	3	4	5	5*2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	64	\$0.43126	\$0.34000	\$0.77126	\$49
1999	64	\$0.44420	\$0.35020	\$0.79440	\$51
2000	64	\$0.45752	\$0.36071	\$0.81823	\$52
2001	64	\$0.47125	\$0.37153	\$0.84278	\$54
2002	64	\$0.48539	\$0.38267	\$0.86806	\$56
2003	64	\$0.49995	\$0.39415	\$0.89410	\$57
2004	64	\$0.51495	\$0.40598	\$0.92092	\$59
2005	64	\$0.53040	\$0.41816	\$0.94855	\$61
2006	64	\$0.54631	\$0.43070	\$0.97701	\$63
2007	64	\$0.56270	\$0.44362	\$1.00632	\$64
2008	64	\$0.57958	\$0.45693	\$1.03651	\$66
2009	64	\$0.59696	\$0.47064	\$1.06760	\$68
2010	64	\$0.61487	\$0.48476	\$1.09963	\$70
2011	64	\$0.63332	\$0.49930	\$1.13262	\$72
2012	64	\$0.65232	\$0.51428	\$1.16660	\$75
2013	64	\$0.67189	\$0.52971	\$1.20160	\$77
2014	64	\$0.69205	\$0.54560	\$1.23765	\$79
2015	64	\$0.71281	\$0.56197	\$1.27478	\$82
2016	64	\$0.73419	\$0.57893	\$1.31302	\$84
2017	64	\$0.75622	\$0.59619	\$1.35241	\$87

Table 2

Dryer

1	2	3	4	4*3
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1998	6.50	78.00	15.30%	\$12
1999	6.70	80.34	15.30%	\$12
2000	6.90	82.75	15.30%	\$13
2001	7.10	85.23	15.30%	\$13
2002	7.32	87.79	15.30%	\$13
2003	7.54	90.42	15.30%	\$14
2004	7.76	93.14	15.30%	\$14
2005	7.99	95.93	15.30%	\$15
2006	8.23	98.81	15.30%	\$15
2007	8.48	101.77	15.30%	\$16
2008	8.74	104.83	15.30%	\$16
2009	9.00	107.97	15.30%	\$17
2010	9.27	111.21	15.30%	\$17
2011	9.55	114.55	15.30%	\$18
2012	9.83	117.98	15.30%	\$18
2013	10.13	121.52	15.30%	\$19
2014	10.43	125.17	15.30%	\$19
2015	10.74	128.92	15.30%	\$20
2016	11.07	132.79	15.30%	\$20
2017	11.40	136.77	15.30%	\$21

Table 3

Dryer

1	2	3	4	5	6	7	8	7*6*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
2002	50	104	366	86	4.68%	606	15.30%	\$4
2003	49	101	352	83	4.68%	585	15.30%	\$4
2004	48	98	338	80	4.68%	564	15.30%	\$4
2005	47	95	325	77	4.68%	544	15.30%	\$4
2006	46	93	312	74	4.68%	525	15.30%	\$4
2007	45	91	300	71	4.68%	507	15.30%	\$4
2008	44	89	288	69	4.68%	490	15.30%	\$4
2009	43	87	277	67	4.68%	474	15.30%	\$3
2010	42	85	266	65	4.68%	458	15.30%	\$3
2011	41	83	256	63	4.68%	443	15.30%	\$3
2012	40	81	246	61	4.68%	428	15.30%	\$3
2013	39	79	236	59	4.68%	413	15.30%	\$3
2014	38	77	227	57	4.68%	399	15.30%	\$3
2015	37	75	218	55	4.68%	385	15.30%	\$3
2016	36	73	209	53	4.68%	371	15.30%	\$3
2017	35	71	201	51	4.68%	358	15.30%	\$3
2018	34	69	193	49	4.68%	345	15.30%	\$2
2019	33	67	185	47	4.68%	332	15.30%	\$2
2020	32	65	178	45	4.68%	320	15.30%	\$2
2021	31	63	171	43	4.68%	308	15.30%	\$2

Table 4

Dryer

1	2	3	4	5	6	7	8	6*7*8*3*9
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	1	16	104	50	154	57.00	15.30%	16
2003	1	17	101	49	150	57.00	15.30%	16
2004	1	17	98	48	146	57.00	15.30%	15
2005	1	18	95	47	142	57.00	15.30%	15
2006	2	18	93	46	139	57.00	15.30%	15
2007	2	19	91	45	136	57.00	15.30%	15
2008	2	19	89	44	133	57.00	15.30%	15
2009	2	20	87	43	130	57.00	15.30%	14
2010	2	20	85	42	127	57.00	15.30%	14
2011	2	21	83	41	124	57.00	15.30%	14
2012	2	22	81	40	121	57.00	15.30%	14
2013	2	22	79	39	118	57.00	15.30%	14
2014	2	23	77	38	115	57.00	15.30%	14
2015	2	24	75	37	112	57.00	15.30%	13
2016	2	24	73	36	109	57.00	15.30%	13
2017	2	25	71	35	106	57.00	15.30%	13
2018	2	26	69	34	103	57.00	15.30%	13
2019	2	27	67	33	100	57.00	15.30%	13
2020	2	27	65	32	97	57.00	15.30%	13
2021	2	28	63	31	94	57.00	15.30%	12

Table 5

Dryer

1	2	3	4	5	6	7	137
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	64	32	32	0.0000	0.0000	1.00	\$0
2003	64	32	32	0.0000	0.0000	1.00	\$0
2004	64	32	32	0.0000	0.0000	1.00	\$0
2005	64	32	32	0.0000	0.0000	1.00	\$0
2006	64	32	32	0.0000	0.0000	1.00	\$0
2007	64	32	32	0.0000	0.0000	1.00	\$0
2008	64	32	32	0.0000	0.0000	1.00	\$0
2009	64	32	32	0.0000	0.0000	1.00	\$0
2010	64	32	32	0.0000	0.0000	1.00	\$0
2011	64	32	32	0.0000	0.0000	1.00	\$0
2012	64	32	32	0.0000	0.0000	1.00	\$0
2013	64	32	32	0.0000	0.0000	1.00	\$0
2014	64	32	32	0.0000	0.0000	1.00	\$0
2015	64	32	32	0.0000	0.0000	1.00	\$0
2016	64	32	32	0.0000	0.0000	1.00	\$0
2017	64	32	32	0.0000	0.0000	1.00	\$0
2018	64	32	32	0.0000	0.0000	1.00	\$0
2019	64	32	32	0.0000	0.0000	1.00	\$0
2020	64	32	32	0.0000	0.0000	1.00	\$0
2021	64	32	32	0.0000	0.0000	1.00	\$0

Rate Impact Measure Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction Progr Gas Rate Number

Electric Rate Number

Gas Measure:	Range New Customer, New Dwelling New Main	Alternate Option:	Range Alt FuelType: Electric
Allowance:	\$85		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	New Smyrna Beach Utilities Commission

IV. New Customer Installation Costs

	\$
1. Avoided Meter Removal Cost	\$0
2. Avoided Cut & Cap Cost	0
Total Costs	\$0

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$85
6. Program Cost	\$0
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	42.0	42.0	84.0
3. Seasonal Rate			0.0
Total	42.0	42.0	84.0

V. Gas Supply Cost

1. Load Profile Type	
	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor	1.00
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Therms Displaced	Winter	Summer	Total
2. Standard Rate	0.00	0.00	0.00
Total	0.00	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			
3. Consumed Existing			
4. Displaced			

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000

13. Customer Chg \$7.00

14. Ratio of Therms Consumed to Total 20.00%

15. Average Life 13

III. Common Gas & Electric Data

1. Discount Rate 7.96%

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Facilities O&M	Gas Supply Cost	Program & Allowance Cost	Range Total Columns 6 thru 9
	Table 1	Table 2		Table 3	Table 4	Table 5		
1	2	3	4	5	6	7	8	9
	\$	\$	\$	\$	\$	\$	\$	\$
2000	76	17	93	\$6	4	0	85	95
2001	78	17	95	\$5	4	0		9
2002	81	18	99	\$5	4	0		9
2003	83	18	101	\$5	4	0		9
2004	86	19	105	\$5	4	0		9
2005	88	19	107	\$5	4	0		9
2006	91	20	111	\$5	4	0		9
2007	94	21	115	\$4	5	0		9
2008	96	21	117	\$4	6	0		10
2009	99	22	121	\$4	5	0		9
2010	102	23	125	\$4	5	0		9
2011	105	23	128	\$4	5	0		9
2012	109	24	133	\$4	5	0		9
2013	112	25	137	\$4	5	0		9
2014	115	25	140	\$3	5	0		8
2015	119	26	145	\$3	5	0		8
2016	122	27	149	\$3	6	0		9
2017	126	28	154	\$3	6	0		9
2018	130	29	159	\$3	6	0		9
2019	134	29	163	\$3	6	0		9

Present Value
of Benefits \$1,142

Present Value
of Costs \$168

Benefit/Cost Ratio	6.79
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Table 1

Range

1	2	3	4	5	5'2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	84	\$0.56654	\$0.34000	\$0.90654	\$76
2003	84	\$0.58354	\$0.35020	\$0.93374	\$78
2004	84	\$0.60104	\$0.36071	\$0.96175	\$81
2005	84	\$0.61907	\$0.37153	\$0.99060	\$83
2006	84	\$0.63765	\$0.38267	\$1.02032	\$86
2007	84	\$0.65679	\$0.39415	\$1.05093	\$89
2008	84	\$0.67648	\$0.40598	\$1.08246	\$91
2009	84	\$0.69677	\$0.41816	\$1.11493	\$94
2010	84	\$0.71769	\$0.43070	\$1.14838	\$96
2011	84	\$0.73921	\$0.44362	\$1.18283	\$99
2012	84	\$0.76138	\$0.45693	\$1.21831	\$102
2013	84	\$0.78422	\$0.47064	\$1.25486	\$105
2014	84	\$0.80775	\$0.48476	\$1.29251	\$108
2015	84	\$0.83198	\$0.49930	\$1.33128	\$112
2016	84	\$0.85694	\$0.51428	\$1.37122	\$115
2017	84	\$0.88265	\$0.52971	\$1.41236	\$119
2018	84	\$0.90913	\$0.54560	\$1.45473	\$122
2019	84	\$0.93640	\$0.56197	\$1.49837	\$126
2020	84	\$0.96450	\$0.57893	\$1.54332	\$130
2021	84	\$0.99343	\$0.59619	\$1.58962	\$134

Table 2

Range

1	2	3	4	4'3
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	7.00	84.00	20.00%	\$17
2003	7.21	86.52	20.00%	\$17
2004	7.43	89.12	20.00%	\$18
2005	7.65	91.79	20.00%	\$18
2006	7.88	94.54	20.00%	\$19
2007	8.11	97.38	20.00%	\$19
2008	8.36	100.30	20.00%	\$20
2009	8.61	103.31	20.00%	\$21
2010	8.87	106.41	20.00%	\$21
2011	9.13	109.60	20.00%	\$22
2012	9.41	112.89	20.00%	\$23
2013	9.69	116.28	20.00%	\$23
2014	9.98	119.76	20.00%	\$24
2015	10.28	123.36	20.00%	\$25
2016	10.59	127.06	20.00%	\$25
2017	10.91	130.87	20.00%	\$26
2018	11.23	134.80	20.00%	\$27
2019	11.57	138.94	20.00%	\$28
2020	11.92	143.01	20.00%	\$29
2021	12.27	147.30	20.00%	\$29

Table 3

Range

1	2	3	4	5	6	7	8	9	10
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio Therms Cons.	Carrying Chg Mains & Svc	
2002	50	104	366	86	4.68%	606	20.00%	\$6	
2003	49	101	352	83	4.68%	585	20.00%	\$5	
2004	48	98	338	80	4.68%	564	20.00%	\$5	
2005	47	95	325	77	4.68%	544	20.00%	\$5	
2006	46	93	312	74	4.68%	525	20.00%	\$5	
2007	45	91	300	71	4.68%	507	20.00%	\$5	
2008	44	89	288	69	4.68%	490	20.00%	\$5	
2009	43	87	277	67	4.68%	474	20.00%	\$4	
2010	42	85	268	65	4.68%	458	20.00%	\$4	
2011	41	83	256	63	4.68%	443	20.00%	\$4	
2012	40	81	246	61	4.68%	428	20.00%	\$4	
2013	39	79	236	59	4.68%	413	20.00%	\$4	
2014	38	77	227	57	4.68%	399	20.00%	\$4	
2015	37	75	218	55	4.68%	385	20.00%	\$4	
2016	36	73	209	53	4.68%	371	20.00%	\$3	
2017	35	71	201	51	4.68%	358	20.00%	\$3	
2018	34	69	193	49	4.68%	345	20.00%	\$3	
2019	33	67	185	47	4.68%	332	20.00%	\$3	
2020	32	65	178	45	4.68%	320	20.00%	\$3	
2021	30	63	171	43	4.68%	307	20.00%	\$3	

Table 4

Range

1	2	3	4	5	6	7	8
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Customer Cost	Ratio Therms * Total Consum	New Customer Adm. & Main O&M
2002	1	16	104	50	154	20.00%	\$4
2003	1	17	101	49	150	20.00%	\$4
2004	1	17	98	48	146	20.00%	\$4
2005	1	18	95	47	142	20.00%	\$4
2006	2	18	93	46	139	20.00%	\$4
2007	2	19	91	45	136	20.00%	\$4
2008	2	19	89	44	133	20.00%	\$4
2009	2	20	87	43	130	20.00%	\$5
2010	2	20	85	42	127	20.00%	\$6
2011	2	21	83	41	124	20.00%	\$6
2012	2	22	81	40	121	20.00%	\$6
2013	2	22	79	39	118	20.00%	\$6
2014	2	23	77	38	115	20.00%	\$6
2015	2	24	75	37	112	20.00%	\$6
2016	2	24	73	36	109	20.00%	\$6
2017	2	25	71	35	108	20.00%	\$6
2018	2	26	69	34	103	20.00%	\$6
2019	2	27	67	33	100	20.00%	\$6
2020	2	27	65	32	97	20.00%	\$6
2021	2	28	63	31	94	20.00%	\$6

Table 5

Range

1	2	3	4	5	6	7	8
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	84	16	16	0.0000	0.0000	1.00	\$0
1999	84	42	42	0.0000	0.0000	1.00	\$0
2000	84	42	42	0.0000	0.0000	1.00	\$0
2001	84	42	42	0.0000	0.0000	1.00	\$0
2002	84	42	42	0.0000	0.0000	1.00	\$0
2003	84	42	42	0.0000	0.0000	1.00	\$0
2004	84	42	42	0.0000	0.0000	1.00	\$0
2005	84	42	42	0.0000	0.0000	1.00	\$0
2006	84	42	42	0.0000	0.0000	1.00	\$0
2007	84	42	42	0.0000	0.0000	1.00	\$0
2008	84	42	42	0.0000	0.0000	1.00	\$0
2009	84	42	42	0.0000	0.0000	1.00	\$0
2010	84	42	42	0.0000	0.0000	1.00	\$0
2011	84	42	42	0.0000	0.0000	1.00	\$0
2012	84	42	42	0.0000	0.0000	1.00	\$0
2013	84	42	42	0.0000	0.0000	1.00	\$0
2014	84	42	42	0.0000	0.0000	1.00	\$0
2015	84	42	42	0.0000	0.0000	1.00	\$0
2016	84	42	42	0.0000	0.0000	1.00	\$0
2017	84	42	42	0.0000	0.0000	1.00	\$0

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction Program Gas Rate Number Electric Rate Number

Gas Measure:	Water Heater 40 gallon	Alternate Option:	Electric Resistance Water Heater 50 gallon
	New Customer, New Dwelling, New Main	Alt FuelType:	Electric
Allowance:	\$300		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	\$178
2. Installation	300
Total Cust. Cost	\$478

3. Utility Rebate \$300
4. Other Rebate

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	72.0	48.0	120.0
3. Seasonal Rate			0.0
Total	72.0	48.0	120.0

4. Electric Consumption in KWH

5. O&M (excluding energy) \$7

Gas Rates	Rate
Base, Winter	\$0.56654
Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%

13. Customer Chg \$7.00

14. Ratio of Therms Consumed to Total 28.80%

15. Average Life 12

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. Installed Cost Data

	\$
1. Equipment	\$120
2. Installation	217
Total Cust. Cost	\$337

3. Utility Allowance \$0
4. Other Allowance

V. Energy Conserved Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3,600	3,600
3. Annual Oil Gallon	0	0
4. Annual Gas Therms	0	0

5. Diversified KW
6. Billing KW

7. O&M (excluding energy) \$9
8. Monthly Utility Incentive \$0
9. Average Life in Yrs 14
10. Existing Remaining Life in Yrs 0

11. Electric Rate per KWH \$0.0773
12. Electric Rate per KW, Winter \$0.0000
13. Electric Rate per KW, Summer \$0.0000
14. Electric Taxes & Fees 16.00%
15. Customer Chg \$5.65

VI. Therms Displaced

1. Energy Factor 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	\$323	\$0	\$126	\$9	\$7	\$28	\$300	\$0	\$471	\$337	\$478	\$141
2003	\$332	\$0	\$130	\$9	\$7	\$29	0	0	\$176	0	0	\$0
2004	\$342	\$0	\$134	\$10	\$7	\$30	0	0	\$181	0	0	\$0
2005	\$353	\$0	\$138	\$10	\$8	\$31	0	0	\$186	0	0	\$0
2006	\$363	\$0	\$142	\$10	\$8	\$32	0	0	\$192	0	0	\$0
2007	\$374	\$0	\$146	\$10	\$8	\$33	0	0	\$198	0	0	\$0
2008	\$385	\$0	\$151	\$11	\$8	\$34	0	0	\$204	0	0	\$0
2009	\$397	\$0	\$155	\$11	\$9	\$35	0	0	\$210	0	0	\$0
2010	\$409	\$0	\$160	\$11	\$9	\$36	0	0	\$216	0	0	\$0
2011	\$421	\$0	\$165	\$12	\$9	\$37	0	0	\$223	0	0	\$0
2012	\$434	\$0	\$170	\$12	\$9	\$38	0	0	\$229	0	0	\$0
2013	\$447	\$0	\$175	\$12	\$10	\$39	0	0	\$236	0	0	\$0
2014	\$460	\$0	\$180	\$13	\$10	\$40	300	0	\$543	0	300	\$300
2015	\$474	\$0	\$185	\$13	\$10	\$41	0	0	\$250	0	0	\$0
2016	\$488	\$0	\$191	\$14	\$11	\$42	0	0	\$258	217	0	(\$217)
2017	\$503	\$0	\$197	\$14	\$11	\$44	0	0	\$266	0	0	\$0
2018	\$518	\$0	\$202	\$14	\$11	\$45	0	0	\$274	0	0	\$0
2019	\$534	\$0	\$209	\$15	\$12	\$46	0	0	\$282	0	0	\$0
2020	\$550	\$0	\$215	\$15	\$12	\$48	0	0	\$290	0	0	\$0
2021	\$566	\$0	\$221	\$16	\$12	\$49	0	0	\$299	0	0	\$0

Present Value
of Benefits

\$2,485

Present Value
of Costs

\$173

Benefit/Cost Ratio	14.39
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TABLE 1 Electric KW Cost WATER

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	\$0.0773	3,600	16.00%	\$323
2003	\$0.0796	3,600	16.00%	\$332
2004	\$0.0820	3,600	16.00%	\$342
2005	\$0.0845	3,600	16.00%	\$353
2006	\$0.0870	3,600	16.00%	\$363
2007	\$0.0896	3,600	16.00%	\$374
2008	\$0.0923	3,600	16.00%	\$385
2009	\$0.0951	3,600	16.00%	\$397
2010	\$0.0979	3,600	16.00%	\$409
2011	\$0.1009	3,600	16.00%	\$421
2012	\$0.1039	3,600	16.00%	\$434
2013	\$0.1070	3,600	16.00%	\$447
2014	\$0.1102	3,600	16.00%	\$460
2015	\$0.1135	3,600	16.00%	\$474
2016	\$0.1169	3,600	16.00%	\$488
2017	\$0.1204	3,600	16.00%	\$503
2018	\$0.1240	3,600	16.00%	\$518
2019	\$0.1278	3,600	16.00%	\$534
2020	\$0.1316	3,600	16.00%	\$550
2021	\$0.1355	3,600	16.00%	\$566

TABLE 2 Consumed-Displaced-Conserved - Therms

1	2	3	4	3*2*4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
2002	\$0.9065	120	16.00%	\$126
2003	\$0.9337	120	16.00%	\$130
2004	\$0.9617	120	16.00%	\$134
2005	\$0.9906	120	16.00%	\$138
2006	\$1.0203	120	16.00%	\$142
2007	\$1.0509	120	16.00%	\$146
2008	\$1.0825	120	16.00%	\$151
2009	\$1.1149	120	16.00%	\$155
2010	\$1.1484	120	16.00%	\$160
2011	\$1.1828	120	16.00%	\$165
2012	\$1.2183	120	16.00%	\$170
2013	\$1.2549	120	16.00%	\$175
2014	\$1.2925	120	16.00%	\$180
2015	\$1.3313	120	16.00%	\$185
2016	\$1.3712	120	16.00%	\$191
2017	\$1.4124	120	16.00%	\$197
2018	\$1.4547	120	16.00%	\$202
2019	\$1.4984	120	16.00%	\$209
2020	\$1.5433	120	16.00%	\$215
2021	\$1.5896	120	16.00%	\$221

TABLE 3 Gas Customer Charge

1	2	3	4	5	6	3*6*16%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Wtr. Htr Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	\$7.00	\$84.00	120	418	28.80%	\$28
2003	\$7.21	\$86.52	120	418	28.80%	\$29
2004	\$7.43	\$89.12	120	418	28.80%	\$30
2005	\$7.65	\$91.79	120	418	28.80%	\$31
2006	\$7.88	\$94.54	120	418	28.80%	\$32
2007	\$8.11	\$97.38	120	418	28.80%	\$33
2008	\$8.36	\$100.30	120	418	28.80%	\$34
2009	\$8.61	\$103.31	120	418	28.80%	\$35
2010	\$8.87	\$106.41	120	418	28.80%	\$36
2011	\$9.13	\$109.60	120	418	28.80%	\$37
2012	\$9.41	\$112.89	120	418	28.80%	\$38
2013	\$9.69	\$116.28	120	418	28.80%	\$39
2014	\$9.98	\$119.76	120	418	28.80%	\$40
2015	\$10.28	\$123.36	120	418	28.80%	\$41
2016	\$10.59	\$127.06	120	418	28.80%	\$42
2017	\$10.91	\$130.87	120	418	28.80%	\$44
2018	\$11.23	\$134.80	120	418	28.80%	\$45
2019	\$11.57	\$138.84	120	418	28.80%	\$46
2020	\$11.92	\$143.00	120	418	28.80%	\$48
2021	\$12.27	\$147.29	120	418	28.80%	\$49

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction Program

Gas Rate Number

Electric Rate Number

Gas Measure:	Furnace	Alternate Option:	Electric Resistance Furnace
	New Customer, New Dwelling, New Main	Alt FuelType:	Electric
Allowance:	\$300		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	\$2,280
2. Installation	667
Total Cust. Cost	<u>\$2,947</u>
3. Utility Rebate	\$300
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	150.0	0.0	150.0
3. Seasonal Rate			0.0
Total	<u>150.0</u>	<u>0.0</u>	<u>150.0</u>

4. Electric Consumption in KWH

5. O&M (excluding energy) \$14

Gas Rates	Rate
3. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%

13. Customer Chg \$7.00

14. Ratio of Therms Consumed to Total

35.90%

15. Average Life 18

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. Installed Cost Data

	\$
1. Equipment	\$1,517
2. Installation	699
Total Cust. Cost	<u>\$2,216</u>
3. Utility Allowance	\$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	5,869	5,869
3. Annual Oil Gallons	0	0
4. Annual Gas Therm	0	0

5. Diversified KW

6. Billing KW

7. O&M (excluding energy)	\$9
8. Monthly Utility Incentive	\$0
9. Average Life in Yrs	9
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	\$0.0773
12. Electric Rate per KW, Winter	\$0.0000
13. Electric Rate per KW, Summer	\$0.0000
14. Electric Taxes & Fees	16.00%
15. Customer Chg	\$5.65

VI. Therms Displaced

1. Energy Factor 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	<u>0.0</u>	<u>0.0</u>

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	\$526	\$0	\$158	\$9	\$14	\$35	\$300	\$0	\$629	\$2,216	\$2,947	\$731
2003	\$542	\$0	\$162	\$9	\$14	\$36	0	0	\$338	0	0	\$0
2004	\$558	\$0	\$167	\$10	\$15	\$37	0	0	\$349	0	0	\$0
2005	\$575	\$0	\$172	\$10	\$15	\$38	0	0	\$359	0	0	\$0
2006	\$592	\$0	\$178	\$10	\$16	\$39	0	0	\$370	0	0	\$0
2007	\$610	\$0	\$183	\$10	\$16	\$41	0	0	\$381	0	0	\$0
2008	\$628	\$0	\$188	\$11	\$17	\$42	0	0	\$392	0	0	\$0
2009	\$647	\$0	\$194	\$11	\$17	\$43	0	0	\$404	0	0	\$0
2010	\$667	\$0	\$200	\$11	\$18	\$44	0	0	\$416	0	0	\$0
2011	\$687	\$0	\$206	\$12	\$18	\$46	0	0	\$429	0	0	\$0
2012	\$707	\$0	\$212	\$12	\$19	\$47	0	0	\$442	0	0	\$0
2013	\$728	\$0	\$218	\$12	\$19	\$48	0	0	\$455	0	0	\$0
2014	\$750	\$0	\$225	\$13	\$20	\$50	0	0	\$468	0	0	\$0
2015	\$773	\$0	\$232	\$13	\$21	\$51	0	0	\$482	0	0	\$0
2016	\$796	\$0	\$239	\$14	\$21	\$53	0	0	\$497	0	0	\$0
2017	\$820	\$0	\$246	\$14	\$22	\$54	0	0	\$512	0	0	\$0
2018	\$844	\$0	\$253	\$14	\$22	\$56	0	0	\$527	0	0	\$0
2019	\$870	\$0	\$261	\$15	\$23	\$58	0	0	\$543	0	0	\$0
2020	\$896	\$0	\$269	\$15	\$24	\$60	0	0	\$559	0	0	\$0
2021	\$923	\$0	\$277	\$16	\$25	\$61	0	0	\$576	0	0	\$0

Present Value
of Benefits

\$4,316

Present Value
of Costs

\$677

Benefit/Cost Ratio	6.37
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TABLE 1 Electric KW Cost HEAT

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	\$0.0773	5,869	16.00%	\$526
2003	\$0.0796	5,869	16.00%	\$542
2004	\$0.0820	5,869	16.00%	\$558
2005	\$0.0845	5,869	16.00%	\$575
2006	\$0.0870	5,869	16.00%	\$592
2007	\$0.0896	5,869	16.00%	\$610
2008	\$0.0923	5,869	16.00%	\$628
2009	\$0.0951	5,869	16.00%	\$647
2010	\$0.0979	5,869	16.00%	\$667
2011	\$0.1009	5,869	16.00%	\$687
2012	\$0.1039	5,869	16.00%	\$707
2013	\$0.1070	5,869	16.00%	\$728
2014	\$0.1102	5,869	16.00%	\$750
2015	\$0.1135	5,869	16.00%	\$773
2016	\$0.1169	5,869	16.00%	\$796
2017	\$0.1204	5,869	16.00%	\$820
2018	\$0.1240	5,869	16.00%	\$844
2019	\$0.1278	5,869	16.00%	\$870
2020	\$0.1316	5,869	16.00%	\$896
2021	\$0.1355	5,869	16.00%	\$923

TABLE 3 Gas Customer Charge

1	2	3	4	5	6	3*6+16.0%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Furnace Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	\$7.00	\$84.00	150	418	35.89%	\$35
2003	\$7.21	\$86.52	150	418	35.89%	\$36
2004	\$7.43	\$89.12	150	418	35.89%	\$37
2005	\$7.65	\$91.79	150	418	35.89%	\$38
2006	\$7.88	\$94.54	150	418	35.89%	\$39
2007	\$8.11	\$97.38	150	418	35.89%	\$41
2008	\$8.36	\$100.30	150	418	35.89%	\$42
2009	\$8.61	\$103.31	150	418	35.89%	\$43
2010	\$8.87	\$106.41	150	418	35.89%	\$44
2011	\$9.13	\$109.60	150	418	35.89%	\$46
2012	\$9.41	\$112.89	150	418	35.89%	\$47
2013	\$9.69	\$116.28	150	418	35.89%	\$48
2014	\$9.98	\$119.76	150	418	35.89%	\$50
2015	\$10.28	\$123.36	150	418	35.89%	\$51
2016	\$10.59	\$127.06	150	418	35.89%	\$53
2017	\$10.91	\$130.87	150	418	35.89%	\$54
2018	\$11.23	\$134.80	150	418	35.89%	\$56
2019	\$11.57	\$138.84	150	418	35.89%	\$58
2020	\$11.92	\$143.00	150	418	35.89%	\$60
2021	\$12.27	\$147.29	150	418	35.89%	\$61

TABLE 2 Consumed-Displaced-Conserved - Therms

1	2	3	4	3*2*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
2002	\$0.9065	150	16.00%	\$158
2003	\$0.9337	150	16.00%	\$162
2004	\$0.9617	150	16.00%	\$167
2005	\$0.9906	150	16.00%	\$172
2006	\$1.0203	150	16.00%	\$178
2007	\$1.0509	150	16.00%	\$183
2008	\$1.0825	150	16.00%	\$188
2009	\$1.1149	150	16.00%	\$194
2010	\$1.1484	150	16.00%	\$200
2011	\$1.1828	150	16.00%	\$206
2012	\$1.2183	150	16.00%	\$212
2013	\$1.2549	150	16.00%	\$218
2014	\$1.2925	150	16.00%	\$225
2015	\$1.3313	150	16.00%	\$232
2016	\$1.3712	150	16.00%	\$239
2017	\$1.4124	150	16.00%	\$246
2018	\$1.4547	150	16.00%	\$253
2019	\$1.4984	150	16.00%	\$261
2020	\$1.5433	150	16.00%	\$269
2021	\$1.5896	150	16.00%	\$277

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction Program

Gas Rate Number

Electric Rate Number

Gas Measure:	Dryer	Alternate Option:	Dryer
	New Customer, New Dwelling, New Main	Alt FuelType:	Electric
Allowance:	\$85		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	New Smyrna Beach Utility Commission

I. Installed Cost Data

	\$
1. Equipment	\$451
2. Installation	214
Total Cust. Cost	\$665
3. Utility Rebate	\$85
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	32.0	32.0	64.0
3. Seasonal Rate			0.0
Total	32.0	32.0	64.0

4. Electric Consumption in KWH

5. O&M (excluding energy) \$10

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%

13. Customer Chg \$7.00

14. Ratio of Therms Consumed to Total 15.30%

15. Average Life 13

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. Installed Cost Data

	\$
1. Equipment	\$398
2. Installation	120
Total Cust. Cost	\$518
3. Utility Allowance	\$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	996	996
3. Annual Oil Gallons	0	0
4. Annual Gas Therm	0	0

5. Diversified KW

6. Billing KW

7. O&M (excluding energy)	\$14
8. Monthly Utility Incentive	\$0
9. Average Life in Yrs	13
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	\$0.0773
12. Electric Rate per KW, Winter	\$0.0000
13. Electric Rate per KW, Summer	\$0.0000
14. Electric Taxes & Fees	16.00%
15. Customer Chg	\$5.65

VI. Therms Displaced

1. Energy Factor 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	\$89	\$0	\$67	\$14	\$10	\$15	\$85	\$0	\$96	\$518	\$665	\$147
2003	\$92	\$0	\$69	\$14	\$10	\$15	0	0	\$11	0	0	0
2004	\$95	\$0	\$71	\$15	\$11	\$16	0	0	\$12	0	0	0
2005	\$98	\$0	\$74	\$15	\$11	\$16	0	0	\$12	0	0	0
2006	\$101	\$0	\$76	\$16	\$11	\$17	0	0	\$12	0	0	0
2007	\$104	\$0	\$78	\$16	\$12	\$17	0	0	\$13	0	0	0
2008	\$107	\$0	\$80	\$17	\$12	\$18	0	0	\$13	0	0	0
2009	\$110	\$0	\$83	\$17	\$12	\$18	0	0	\$14	0	0	0
2010	\$113	\$0	\$85	\$18	\$13	\$19	0	0	\$14	0	0	0
2011	\$117	\$0	\$88	\$18	\$13	\$19	0	0	\$14	0	0	0
2012	\$120	\$0	\$90	\$19	\$13	\$20	0	0	\$15	0	0	0
2013	\$124	\$0	\$93	\$19	\$14	\$21	0	0	\$15	0	0	0
2014	\$127	\$0	\$96	\$20	\$14	\$21	0	0	\$16	0	0	0
2015	\$131	\$0	\$99	\$21	\$15	\$22	0	0	\$16	0	0	0
2016	\$135	\$0	\$102	\$21	\$15	\$23	85	0	\$102	120	214	94
2017	\$139	\$0	\$105	\$22	\$16	\$23	0	0	\$17	0	0	0
2018	\$143	\$0	\$108	\$22	\$16	\$24	0	0	\$18	0	0	0
2019	\$148	\$0	\$111	\$23	\$17	\$25	0	0	\$18	0	0	0
2020	\$152	\$0	\$115	\$24	\$17	\$25	0	0	\$19	0	0	0
2021	\$157	\$0	\$118	\$25	\$18	\$26	0	0	\$19	0	0	0

Present Value
of Benefits

\$242

Present Value
of Costs

\$166

Benefit/Cost Ratio	1.46
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TABLE 1 Electric KW Cost DRYER

1 Year	2 KWH Cost	3 Annual KWH	4 Tax & Fees	3*2*4 Electric Cost
2002	\$0.0773	996	16.00%	\$89
2003	\$0.0796	996	16.00%	\$92
2004	\$0.0820	996	16.00%	\$95
2005	\$0.0845	996	16.00%	\$98
2006	\$0.0870	996	16.00%	\$101
2007	\$0.0896	996	16.00%	\$104
2008	\$0.0923	996	16.00%	\$107
2009	\$0.0951	996	16.00%	\$110
2010	\$0.0979	996	16.00%	\$113
2011	\$0.1009	996	16.00%	\$117
2012	\$0.1039	996	16.00%	\$120
2013	\$0.1070	996	16.00%	\$124
2014	\$0.1102	996	16.00%	\$127
2015	\$0.1135	996	16.00%	\$131
2016	\$0.1169	996	16.00%	\$135
2017	\$0.1204	996	16.00%	\$139
2018	\$0.1240	996	16.00%	\$143
2019	\$0.1278	996	16.00%	\$148
2020	\$0.1316	996	16.00%	\$152
2021	\$0.1355	996	16.00%	\$157

TABLE 2 Consumed-Displaced-Conserved - Therms

1 Year	2 Therm Cost	3 Annual Therms	4 Tax Fees	3*2*4 Gas Cost
2002	\$0.9065	64	16.00%	\$67
2003	\$0.9337	64	16.00%	\$69
2004	\$0.9617	64	16.00%	\$71
2005	\$0.9906	64	16.00%	\$74
2006	\$1.0203	64	16.00%	\$76
2007	\$1.0509	64	16.00%	\$78
2008	\$1.0825	64	16.00%	\$80
2009	\$1.1149	64	16.00%	\$83
2010	\$1.1484	64	16.00%	\$85
2011	\$1.1828	64	16.00%	\$88
2012	\$1.2183	64	16.00%	\$90
2013	\$1.2549	64	16.00%	\$93
2014	\$1.2925	64	16.00%	\$96
2015	\$1.3313	64	16.00%	\$99
2016	\$1.3712	64	16.00%	\$102
2017	\$1.4124	64	16.00%	\$105
2018	\$1.4547	64	16.00%	\$108
2019	\$1.4984	64	16.00%	\$111
2020	\$1.5433	64	16.00%	\$115
2021	\$1.5896	64	16.00%	\$118

TABLE 3 Gas Customer Charge

1 Year	2 Cust. Chrg	3 Annual Cust. Chrg	4 Dryer Annual Therms	5 Total Annual Therms	6 Ratio Therms Consumerd to Total	3*6+16.00% Gas Customer Charge
2002	\$7.00	\$84.00	64	418	15.31%	15
2003	\$7.21	\$86.52	64	418	15.31%	15
2004	\$7.43	\$89.12	64	418	15.31%	16
2005	\$7.65	\$91.79	64	418	15.31%	16
2006	\$7.88	\$94.54	64	418	15.31%	17
2007	\$8.11	\$97.38	64	418	15.31%	17
2008	\$8.36	\$100.30	64	418	15.31%	18
2009	\$8.61	\$103.31	64	418	15.31%	18
2010	\$8.87	\$106.41	64	418	15.31%	19
2011	\$9.13	\$109.60	64	418	15.31%	19
2012	\$9.41	\$112.89	64	418	15.31%	20
2013	\$9.69	\$116.28	64	418	15.31%	21
2014	\$9.98	\$119.76	64	418	15.31%	21
2015	\$10.28	\$123.36	64	418	15.31%	22
2016	\$10.59	\$127.06	64	418	15.31%	23
2017	\$10.91	\$130.87	64	418	15.31%	23
2018	\$11.23	\$134.80	64	418	15.31%	24
2019	\$11.57	\$138.84	64	418	15.31%	25
2020	\$11.92	\$143.00	64	418	15.31%	25
2021	\$12.27	\$147.29	64	418	15.31%	26

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Full House Residential New Construction Program
Gas Rate Number

Electric Rate Number

Gas Measure:	Range	Alternate Option:	Range
	New Customer, New Dwelling, New Main	Alt FuelType:	Electric
Allowance:	\$85		
Gas Utility:	Florida Public Utilities Co.	Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	\$615
2. Installation	208
Total Cust. Cost	\$823

3. Utility Rebate	\$85
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	42.0	42.0	84.0
3. Seasonal Rate			0.0
Total	42.0	42.0	84.0

4. Electric Consumption in KWH	
5. O&M (excluding energy)	\$7

Gas Rates	Rate
7. Base, Winter	\$0.56654
8. Base, Summer	\$0.56654
9. Seasonal, Winter	
10. Seasonal, Summer	
11. PGA, Winter	0.34000
12. PGA, Summer	0.34000
13. Taxes & Fees	16.00%

13. Customer Chg	\$7.00
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14. Ratio of Therms Consumed to Total	20.00%
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15. Average Life	13
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III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. Installed Cost Data

	\$
1. Equipment	\$562
2. Installation	120
Total Cust. Cost	\$682

3. Utility Allowance	\$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	1,020	1,020
3. Annual Oil Gallons	0	0
4. Annual Gas Therm	0	0
	Winter	Summer

5. Diversified KW	
6. Billing KW	
7. O&M (excluding energy)	\$12
8. Monthly Utility Incentive	\$0
9. Average Life in Yrs	19
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	\$0.0773
12. Electric Rate per KW, Winter	\$0.0000
13. Electric Rate per KW, Summer	\$0.0000
14. Electric Taxes & Fees	16.00%
15. Customer Chg	\$5.65

VI. Therms Displaced

1. Energy Factor	1.00
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Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	\$91	\$0	\$88	\$12	\$7	\$20	\$85	\$0	\$89	\$682	\$823	\$141
2003	\$94	\$0	\$91	\$12	\$7	\$20	0	0	\$4	0	0	\$0
2004	\$97	\$0	\$94	\$13	\$7	\$21	0	0	\$4	0	0	\$0
2005	\$100	\$0	\$97	\$13	\$8	\$21	0	0	\$4	0	0	\$0
2006	\$103	\$0	\$99	\$14	\$8	\$22	0	0	\$4	0	0	\$0
2007	\$106	\$0	\$102	\$14	\$8	\$23	0	0	\$4	0	0	\$0
2008	\$109	\$0	\$105	\$14	\$8	\$23	0	0	\$4	0	0	\$0
2009	\$112	\$0	\$109	\$15	\$9	\$24	0	0	\$5	0	0	\$0
2010	\$116	\$0	\$112	\$15	\$9	\$25	0	0	\$5	0	0	\$0
2011	\$119	\$0	\$115	\$16	\$9	\$26	0	0	\$5	0	0	\$0
2012	\$123	\$0	\$119	\$16	\$9	\$26	0	0	\$5	0	0	\$0
2013	\$127	\$0	\$122	\$17	\$10	\$27	0	0	\$5	0	0	\$0
2014	\$130	\$0	\$126	\$17	\$10	\$28	0	0	\$5	0	0	\$0
2015	\$134	\$0	\$130	\$18	\$10	\$29	85	0	\$90	0	0	\$0
2016	\$138	\$0	\$134	\$18	\$11	\$30	0	0	\$6	0	0	\$0
2017	\$142	\$0	\$138	\$19	\$11	\$31	0	0	\$6	0	0	\$0
2018	\$147	\$0	\$142	\$19	\$11	\$31	0	0	\$6	0	0	\$0
2019	\$151	\$0	\$146	\$20	\$12	\$32	0	0	\$6	0	0	\$0
2020	\$156	\$0	\$150	\$20	\$12	\$33	0	0	\$6	0	0	\$0
2021	\$160	\$0	\$155	\$21	\$12	\$34	0	0	\$7	0	0	\$0

Present Value
of Benefits

\$153

Present Value
of Costs

\$131

Benefit/Cost Ratio	1.17
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TABLE 1 Electric KW Cost RANGE

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	\$0.0773	1,020	16.00%	\$91
2003	\$0.0796	1,020	16.00%	\$94
2004	\$0.0820	1,020	16.00%	\$97
2005	\$0.0845	1,020	16.00%	\$100
2006	\$0.0870	1,020	16.00%	\$103
2007	\$0.0896	1,020	16.00%	\$106
2008	\$0.0923	1,020	16.00%	\$109
2009	\$0.0951	1,020	16.00%	\$112
2010	\$0.0979	1,020	16.00%	\$116
2011	\$0.1009	1,020	16.00%	\$119
2012	\$0.1039	1,020	16.00%	\$123
2013	\$0.1070	1,020	16.00%	\$127
2014	\$0.1102	1,020	16.00%	\$130
2015	\$0.1135	1,020	16.00%	\$134
2016	\$0.1169	1,020	16.00%	\$138
2017	\$0.1204	1,020	16.00%	\$142
2018	\$0.1240	1,020	16.00%	\$147
2019	\$0.1278	1,020	16.00%	\$151
2020	\$0.1316	1,020	16.00%	\$156
2021	\$0.1355	1,020	16.00%	\$160

TABLE 3 Gas Customer Charge

1	2	3	4	5	6	3*6+16.00%
Year	Cust. Chrg	Annual Cust. Chrg	Range Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	\$7.00	\$84.00	84	418	20.10%	20
2003	\$7.21	\$86.52	84	418	20.10%	20
2004	\$7.43	\$89.12	84	418	20.10%	21
2005	\$7.65	\$91.79	84	418	20.10%	21
2006	\$7.88	\$94.54	84	418	20.10%	22
2007	\$8.11	\$97.38	84	418	20.10%	23
2008	\$8.36	\$100.30	84	418	20.10%	23
2009	\$8.61	\$103.31	84	418	20.10%	24
2010	\$8.87	\$106.41	84	418	20.10%	25
2011	\$9.13	\$109.60	84	418	20.10%	26
2012	\$9.41	\$112.89	84	418	20.10%	26
2013	\$9.69	\$116.28	84	418	20.10%	27
2014	\$9.98	\$119.76	84	418	20.10%	28
2015	\$10.28	\$123.36	84	418	20.10%	29
2016	\$10.59	\$127.06	84	418	20.10%	30
2017	\$10.91	\$130.87	84	418	20.10%	31
2018	\$11.23	\$134.80	84	418	20.10%	31
2019	\$11.57	\$138.84	84	418	20.10%	32
2020	\$11.92	\$143.00	84	418	20.10%	33
2021	\$12.27	\$147.29	84	418	20.10%	34

TABLE 2 Consumed-Displaced-Conserved - Therms

1	2	3	4	3*2*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
2002	\$0.9065	84	16.00%	\$88
2003	\$0.9337	84	16.00%	\$91
2004	\$0.9617	84	16.00%	\$94
2005	\$0.9906	84	16.00%	\$97
2006	\$1.0203	84	16.00%	\$99
2007	\$1.0509	84	16.00%	\$102
2008	\$1.0825	84	16.00%	\$105
2009	\$1.1149	84	16.00%	\$109
2010	\$1.1484	84	16.00%	\$112
2011	\$1.1828	84	16.00%	\$115
2012	\$1.2183	84	16.00%	\$119
2013	\$1.2549	84	16.00%	\$122
2014	\$1.2925	84	16.00%	\$126
2015	\$1.3313	84	16.00%	\$130
2016	\$1.3712	84	16.00%	\$134
2017	\$1.4124	84	16.00%	\$138
2018	\$1.4547	84	16.00%	\$142
2019	\$1.4984	84	16.00%	\$146
2020	\$1.5433	84	16.00%	\$150
2021	\$1.5896	84	16.00%	\$155

Florida Public Utilities Company
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost Effectiveness Ratios

Residential Appliance Replacement Program

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	330	31.02	16.01
Furnace	330	2.53	16.12
Clothes Dryer	50	1.10	5.67
Range	50	1.00	7.43

Rate Impact Measure Test Data

All Costs in 2002 Dollars

Analysis Start Year: 2002

Number of Years: 20

Gas Program: Residential Appliance Replacement Program
Gas Rate Number

Electric Rate Number

Gas Measure:	Water Heater	40 gallon	Alternate Option:	Electric Resistance Water Heater	50 gallon
			Alt FuelType:	Electric	
Allowance:	\$330				
Gas Utility:	Florida Public Utilities Company		Electric Utility:	Utilities Commission of New Smyrna Beach	

	\$
1. Avoided Meter Removal Cost	
2. Avoided Cut & Cap Cost	
Total Costs	\$0

II. Operating Data

1. Energy Factor	0.56
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Therms Consumed	Winter	Summer	Total
2. Standard Rate	72.0	48.0	120.0
3. Seasonal Rate			0.0
Total	72.0	48.0	120.0

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$7.00
14. Ratio of Therms Consumed to Total	28.80%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$330
6. Program Cost	\$56
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	
Gas Supply Cost \$/Therm	
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.88	.88
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor		1.00	
Therms Displaced	Winter	Summer	Total
2. Standard Rate	0.00	0.00	0.00
Total	0.00	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			
3. Consumed Existing			
4. Displaced			

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Meter & Service Line Removal	Total Columns 2 thru 4	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Main O&M	Gas Supply Cost	Other Cost	Program & Allowance Cost	Total Columns 6 thru 10
	Table 1	Table 2			Table 3	Table 4	Table 5			
1	2	3	4	5	6	7	8	9	10	11
2002	\$109	\$24	\$478	\$611	\$7	\$5	\$0	\$0	\$386	\$398
2003	\$112	\$25	\$492	\$629	\$7	\$5	\$0	\$0		\$11
2004	\$115	\$25	\$507	\$648	\$6	\$5	\$0	\$0		\$11
2005	\$119	\$26	\$522	\$668	\$6	\$5	\$0	\$0		\$11
2006	\$122	\$27	\$538	\$687	\$6	\$5	\$0	\$0		\$11
2007	\$126	\$28	\$554	\$708	\$6	\$5	\$0	\$0		\$11
2008	\$130	\$29	\$571	\$729	\$5	\$6	\$0	\$0		\$11
2009	\$134	\$30	\$588	\$751	\$5	\$6	\$0	\$0		\$11
2010	\$138	\$30	\$606	\$774	\$5	\$6	\$0	\$0		\$11
2011	\$142	\$31	\$624	\$797	\$5	\$6	\$0	\$0		\$11
2012	\$146	\$32	\$642	\$821	\$5	\$6	\$0	\$0		\$11
2013	\$151	\$33	\$662	\$846	\$5	\$6	\$0	\$0		\$11
2014	\$155	\$34	\$682	\$871	\$4	\$7	\$0	\$0		\$11
2015	\$160	\$35	\$702	\$897	\$5	\$7	\$0	\$0		\$12
2016	\$165	\$36	\$723	\$924	\$5	\$7	\$0	\$0		\$12
2017	\$169	\$37	\$745	\$951	\$5	\$7	\$0	\$0		\$12
2018	\$175	\$39	\$767	\$981	\$5	\$7	\$0	\$0		\$12
2019	\$180	\$40	\$790	\$1,010	\$5	\$8	\$0	\$0		\$12
2020	\$185	\$41	\$814	\$1,040	\$4	\$8	\$0	\$0		\$12
2021	\$191	\$42	\$838	\$1,071	\$4	\$8	\$0	\$0		\$12

Present Value
of Benefits

\$7,507

Present Value
of Costs

\$469

Benefit/Cost Ratio	16.01
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Table 1

Rim

Water

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	120	\$0.66654	\$0.34000	\$0.90654	\$109
2003	120	\$0.58354	\$0.35020	\$0.93374	\$112
2004	120	\$0.60104	\$0.36071	\$0.96175	\$115
2005	120	\$0.61907	\$0.37153	\$0.99060	\$119
2006	120	\$0.63765	\$0.38267	\$1.02032	\$122
2007	120	\$0.65678	\$0.39415	\$1.05093	\$126
2008	120	\$0.67648	\$0.40598	\$1.08246	\$130
2009	120	\$0.69677	\$0.41816	\$1.11493	\$134
2010	120	\$0.71768	\$0.43070	\$1.14838	\$138
2011	120	\$0.73921	\$0.44362	\$1.18283	\$142
2012	120	\$0.76138	\$0.45693	\$1.21831	\$146
2013	120	\$0.78422	\$0.47064	\$1.25486	\$151
2014	120	\$0.80775	\$0.48478	\$1.29251	\$155
2015	120	\$0.83198	\$0.49930	\$1.33128	\$160
2016	120	\$0.85694	\$0.51428	\$1.37122	\$165
2017	120	\$0.88265	\$0.52971	\$1.41236	\$169
2018	120	\$0.90913	\$0.54560	\$1.45473	\$175
2019	120	\$0.93640	\$0.56197	\$1.49837	\$180
2020	120	\$0.96450	\$0.57883	\$1.54332	\$185
2021	120	\$0.99343	\$0.59619	\$1.58962	\$191

Table 3

Rim

Water

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Svc
2002	50	104	366	86	4.68%	\$502	\$7
2003	49	101	352	83	4.68%	\$484	\$7
2004	48	98	338	80	4.68%	\$466	\$6
2005	47	95	325	77	4.68%	\$449	\$6
2006	46	93	312	74	4.68%	\$432	\$6
2007	45	91	300	72	4.68%	\$417	\$6
2008	44	89	288	70	4.68%	\$402	\$5
2009	43	87	277	68	4.68%	\$388	\$5
2010	42	85	266	66	4.68%	\$374	\$5
2011	41	83	256	64	4.68%	\$361	\$5
2012	40	81	246	62	4.68%	\$348	\$5
2013	39	79	236	60	4.68%	\$335	\$5
2014	38	77	227	58	4.68%	\$323	\$4
2015	37	75	218	56	4.68%	\$308	\$5
2016	36	73	209	54	4.68%	\$302	\$5
2017	35	71	201	52	4.68%	\$295	\$5
2018	34	69	193	50	4.68%	\$288	\$5
2019	33	67	186	48	4.68%	\$281	\$5
2020	32	65	178	46	4.68%	\$274	\$4
2021	31	63	171	44	4.68%	\$267	\$4

Table 2

Rim

Water

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	\$7.00	\$84	28.80%	\$24
2003	\$7.21	\$87	28.80%	\$25
2004	\$7.43	\$89	28.80%	\$25
2005	\$7.65	\$92	28.80%	\$26
2006	\$7.88	\$95	28.80%	\$27
2007	\$8.11	\$97	28.80%	\$28
2008	\$8.36	\$100	28.80%	\$29
2009	\$8.61	\$103	28.80%	\$30
2010	\$8.87	\$106	28.80%	\$30
2011	\$9.13	\$110	28.80%	\$31
2012	\$9.41	\$113	28.80%	\$32
2013	\$9.69	\$116	28.80%	\$33
2014	\$9.98	\$120	28.80%	\$34
2015	\$10.28	\$123	28.80%	\$35
2016	\$10.59	\$127	28.80%	\$36
2017	\$10.91	\$131	28.80%	\$37
2018	\$11.23	\$135	28.80%	\$39
2019	\$11.57	\$139	28.80%	\$40
2020	\$11.92	\$143	28.80%	\$41
2021	\$12.27	\$147	28.80%	\$42

Table 4

Rim

Water

1	2	3	4	5	6	7	
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Customer Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	1	16	104	50	170	28.80%	\$5
2003	1	17	101	49	167	28.80%	\$5
2004	1	17	98	48	163	28.80%	\$5
2005	1	18	95	47	160	28.80%	\$5
2006	2	18	93	46	157	28.80%	\$5
2007	2	19	91	45	155	28.80%	\$5
2008	2	19	89	44	152	28.80%	\$6
2009	2	20	87	43	150	28.80%	\$6
2010	2	20	85	42	147	28.80%	\$6
2011	2	21	83	41	145	28.80%	\$6
2012	2	22	81	40	143	28.80%	\$6
2013	2	22	79	39	140	28.80%	\$6
2014	2	23	77	38	138	28.80%	\$7
2015	2	24	75	37	136	28.80%	\$7
2016	2	24	73	36	133	28.80%	\$7
2017	2	25	71	35	131	28.80%	\$7
2018	2	26	69	34	129	28.80%	\$7
2019	2	27	67	33	127	28.80%	\$8
2020	2	27	65	32	124	28.80%	\$8
2021	2	28	63	31	122	28.80%	\$8

Table 5

Rim

Water

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	120	72	48	0.0000	0.0000	1.00	\$0
2003	120	72	48	0.0000	0.0000	1.00	\$0
2004	120	72	48	0.0000	0.0000	1.00	\$0
2005	120	72	48	0.0000	0.0000	1.00	\$0
2006	120	72	48	0.0000	0.0000	1.00	\$0
2007	120	72	48	0.0000	0.0000	1.00	\$0
2008	120	72	48	0.0000	0.0000	1.00	\$0
2009	120	72	48	0.0000	0.0000	1.00	\$0
2010	120	72	48	0.0000	0.0000	1.00	\$0
2011	120	72	48	0.0000	0.0000	1.00	\$0
2012	120	72	48	0.0000	0.0000	1.00	\$0
2013	120	72	48	0.0000	0.0000	1.00	\$0
2014	120	72	48	0.0000	0.0000	1.00	\$0
2015	120	72	48	0.0000	0.0000	1.00	\$0
2016	120	72	48	0.0000	0.0000	1.00	\$0
2017	120	72	48	0.0000	0.0000	1.00	\$0
2018	120	72	48	0.0000	0.0000	1.00	\$0
2019	120	72	48	0.0000	0.0000	1.00	\$0
2020	120	72	48	0.0000	0.0000	1.00	\$0
2021	120	72	48	0.0000	0.0000	1.00	\$0

Rate Impact Measure Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement Program Gas Rate Number Electric Rate Number

Gas Measure:	Furnace	Alternate Option:	Furnace
		Alt FuelType:	Electric
Allowance:	\$330		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of New Smyrna Beach

	\$
1. Avoided Meter Removal Cost	0
2. Avoided Cut & Cap Cost	0
Total Costs	0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	150.0	0.0	150.0
3. Seasonal Rate			0.0
Total	150.0	0.0	150.0

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$7.00
14. Ratio of Therms Consumed to Total	35.90%
15. Average Life	18

III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$330
6. Program Cost	\$56
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.88	.88
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor	1.00		
Therms Displaced	Winter	Summer	Total
2. Standard Rate	0.00	0.00	0.00
Total	0.00	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			
3. Consumed Existing			
4. Displaced			

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Meter & Service Line Removal 4	Total Columns 2 thru 4 5	Carrying Chg. On Main, Svc. & Meter Table 3 6	New Customer Admin. & Main O&M Table 4 7	Gas Supply Cost Table 5 8	Other Cost Table 6 9	Program & Allowance Cost Table 7 10	Total Columns 6 thru 10 11
1	2	3	4	5	6	7	8	9	10	11
2002	\$136	\$30	\$478	\$644	\$8	\$6	\$0	\$0	\$386	\$400
2003	\$140	\$31	\$492	\$663	\$8	\$6	\$0	\$0		\$14
2004	\$144	\$32	\$507	\$683	\$8	\$6	\$0	\$0		\$14
2005	\$149	\$33	\$522	\$704	\$8	\$6	\$0	\$0		\$14
2006	\$153	\$34	\$538	\$725	\$7	\$6	\$0	\$0		\$14
2007	\$158	\$35	\$554	\$747	\$7	\$7	\$0	\$0		\$14
2008	\$162	\$36	\$571	\$769	\$7	\$7	\$0	\$0		\$14
2009	\$167	\$37	\$588	\$792	\$6	\$7	\$0	\$0		\$14
2010	\$172	\$38	\$606	\$816	\$6	\$7	\$0	\$0		\$13
2011	\$177	\$39	\$624	\$840	\$6	\$7	\$0	\$0		\$13
2012	\$183	\$41	\$642	\$866	\$6	\$8	\$0	\$0		\$13
2013	\$188	\$42	\$662	\$892	\$5	\$8	\$0	\$0		\$13
2014	\$194	\$43	\$682	\$919	\$5	\$8	\$0	\$0		\$13
2015	\$200	\$44	\$702	\$946	\$5	\$8	\$0	\$0		\$13
2016	\$206	\$46	\$723	\$975	\$4	\$9	\$0	\$0		\$13
2017	\$212	\$47	\$745	\$1,004	\$4	\$9	\$0	\$0		\$13
2018	\$218	\$48	\$767	\$1,033	\$4	\$9	\$0	\$0		\$13
2019	\$225	\$50	\$790	\$1,065	\$4	\$9	\$0	\$0		\$13
2020	\$231	\$51	\$814	\$1,096	\$3	\$10	\$0	\$0		\$13
2021	\$238	\$53	\$838	\$1,129	\$3	\$10	\$0	\$0		\$13

Present Value
of Benefits \$7,916

Present Value
of Costs \$491

Benefit/Cost Ratio	16.12
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Table 1

Rim

Furnace

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	150	\$0.58654	\$0.34000	\$0.90654	\$136
2003	150	\$0.58354	\$0.35020	\$0.93374	\$140
2004	150	\$0.80104	\$0.38071	\$0.96175	\$144
2005	150	\$0.81907	\$0.37153	\$0.99060	\$149
2006	150	\$0.83785	\$0.38267	\$1.02032	\$153
2007	150	\$0.85678	\$0.39415	\$1.05093	\$158
2008	150	\$0.87648	\$0.40598	\$1.08246	\$162
2009	150	\$0.89677	\$0.41816	\$1.11493	\$167
2010	150	\$0.71768	\$0.43070	\$1.14838	\$172
2011	150	\$0.73921	\$0.44362	\$1.18283	\$177
2012	150	\$0.78138	\$0.45693	\$1.21831	\$183
2013	150	\$0.78422	\$0.47064	\$1.25486	\$188
2014	150	\$0.80775	\$0.48476	\$1.29251	\$194
2015	150	\$0.83198	\$0.49930	\$1.33128	\$200
2016	150	\$0.85694	\$0.51428	\$1.37122	\$206
2017	150	\$0.88285	\$0.52971	\$1.41256	\$212
2018	150	\$0.90913	\$0.54560	\$1.45473	\$218
2019	150	\$0.93640	\$0.56197	\$1.49837	\$225
2020	150	\$0.96450	\$0.57883	\$1.54332	\$231
2021	150	\$0.99343	\$0.59619	\$1.58962	\$238

Table 3

Rim

Furnace

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Svc
2002	50	104	366	98	4.88%	\$452	\$8
2003	49	101	353	83	4.88%	\$485	\$8
2004	48	98	340	80	4.88%	\$469	\$8
2005	47	95	327	77	4.88%	\$451	\$8
2006	46	93	314	74	4.88%	\$434	\$7
2007	45	91	301	71	4.88%	\$417	\$7
2008	44	89	288	68	4.88%	\$400	\$7
2009	43	87	275	65	4.88%	\$383	\$6
2010	42	85	262	62	4.88%	\$366	\$6
2011	41	83	249	59	4.88%	\$349	\$6
2012	40	81	236	56	4.88%	\$332	\$6
2013	39	79	223	53	4.88%	\$315	\$5
2014	38	77	210	50	4.88%	\$298	\$5
2015	37	75	197	47	4.88%	\$281	\$5
2016	36	73	184	44	4.88%	\$264	\$4
2017	35	71	171	41	4.88%	\$247	\$4
2018	34	69	158	38	4.88%	\$230	\$4
2019	33	67	145	35	4.88%	\$213	\$4
2020	32	65	132	32	4.88%	\$196	\$3
2021	31	63	119	29	4.88%	\$179	\$3

Table 2

Rim

Furnace

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	\$7.00	\$84	35.90%	\$30
2003	\$7.21	\$87	35.90%	\$31
2004	\$7.43	\$89	35.90%	\$32
2005	\$7.65	\$92	35.90%	\$33
2006	\$7.88	\$95	35.90%	\$34
2007	\$8.11	\$97	35.90%	\$35
2008	\$8.36	\$100	35.90%	\$36
2009	\$8.61	\$103	35.90%	\$37
2010	\$8.87	\$106	35.90%	\$38
2011	\$9.13	\$110	35.90%	\$39
2012	\$9.41	\$113	35.90%	\$41
2013	\$9.69	\$116	35.90%	\$42
2014	\$9.98	\$120	35.90%	\$43
2015	\$10.28	\$123	35.90%	\$44
2016	\$10.58	\$127	35.90%	\$46
2017	\$10.91	\$131	35.90%	\$47
2018	\$11.23	\$135	35.90%	\$48
2019	\$11.57	\$139	35.90%	\$50
2020	\$11.92	\$143	35.90%	\$51
2021	\$12.27	\$147	35.90%	\$53

Table 4

Rim

Furnace

Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Customer Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	\$1	\$16	\$104	\$50	\$170	35.90%	\$6
2003	\$1	\$16	\$101	\$49	\$166	35.90%	\$6
2004	\$1	\$17	\$98	\$48	\$163	35.90%	\$6
2005	\$1	\$17	\$95	\$47	\$159	35.90%	\$6
2006	\$2	\$18	\$93	\$46	\$157	35.90%	\$6
2007	\$2	\$19	\$91	\$45	\$155	35.90%	\$7
2008	\$2	\$19	\$89	\$44	\$152	35.90%	\$7
2009	\$2	\$20	\$87	\$43	\$150	35.90%	\$7
2010	\$2	\$20	\$85	\$42	\$147	35.90%	\$7
2011	\$2	\$21	\$83	\$41	\$145	35.90%	\$7
2012	\$2	\$22	\$81	\$40	\$143	35.90%	\$8
2013	\$2	\$22	\$79	\$39	\$140	35.90%	\$8
2014	\$2	\$23	\$77	\$38	\$138	35.90%	\$8
2015	\$2	\$23	\$75	\$37	\$135	35.90%	\$8
2016	\$2	\$24	\$73	\$36	\$133	35.90%	\$8
2017	\$2	\$25	\$71	\$35	\$131	35.90%	\$8
2018	\$2	\$26	\$69	\$34	\$129	35.90%	\$8
2019	\$2	\$26	\$67	\$34	\$127	35.90%	\$8
2020	\$2	\$27	\$65	\$33	\$125	35.90%	\$10
2021	\$2	\$28	\$63	\$32	\$123	35.90%	\$10

Table 5

Rim

Furnace

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	150	150	0	0.0000	0.0000	1.00	\$0
2003	150	150	0	0.0000	0.0000	1.00	\$0
2004	150	150	0	0.0000	0.0000	1.00	\$0
2005	150	150	0	0.0000	0.0000	1.00	\$0
2006	150	150	0	0.0000	0.0000	1.00	\$0
2007	150	150	0	0.0000	0.0000	1.00	\$0
2008	150	150	0	0.0000	0.0000	1.00	\$0
2009	150	150	0	0.0000	0.0000	1.00	\$0
2010	150	150	0	0.0000	0.0000	1.00	\$0
2011	150	150	0	0.0000	0.0000	1.00	\$0
2012	150	150	0	0.0000	0.0000	1.00	\$0
2013	150	150	0	0.0000	0.0000	1.00	\$0
2014	150	150	0	0.0000	0.0000	1.00	\$0
2015	150	150	0	0.0000	0.0000	1.00	\$0
2016	150	150	0	0.0000	0.0000	1.00	\$0
2017	150	150	0	0.0000	0.0000	1.00	\$0
2018	150	150	0	0.0000	0.0000	1.00	\$0
2019	150	150	0	0.0000	0.0000	1.00	\$0
2020	150	150	0	0.0000	0.0000	1.00	\$0
2021	150	150	0	0.0000	0.0000	1.00	\$0

Rate Impact Measure Test Data

All Costs In 2002 Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement Program Gas Rate Number Electric Rate Number

Gas Measure:	Dryer	Alternate Option:	Dryer
		Alt FuelType:	Electric
Allowance:	\$50		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of New Smyrna Beach

	\$
1. Avoided Meter Removal Cost	\$0
2. Avoided Cut & Cap Cost	0
Total Costs	\$0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	32.0	32.0	64.0
3. Seasonal Rate			0.0
Total	32.0	32.0	64.0

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$7.00
14. Ratio of Therms Consumed to Total	15.30%
15. Average Life	13

III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$50
6. Program Cost	\$56
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.90	.88
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor		1.00
Therms Displaced	Winter	Summer
2. Standard Rate	0.00	0.00
Total	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer
1. Consumed	0.07671	0.07671
2. Consumed New		
3. Consumed Existing		
4. Displaced		

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Meter & Service Line Removal 4	Total Columns 2 thru 4 5	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Main O&M Table 4	Gas Supply Cost Table 5	Other Cost Table 6	Program & Allowance Cost Table 7	Total Columns 6 thru 10 11
1	2	3	4	5	6	7	8	9	10	11
2002	\$58	\$13	\$0	\$71	\$4	\$2	\$0	\$0	\$106	\$112
2003	\$60	\$13	\$0	\$73	\$3	\$3	\$0	\$0		\$5
2004	\$62	\$14	\$0	\$76	\$2	\$3	\$0	\$0		\$5
2005	\$63	\$14	\$0	\$77	\$2	\$3	\$0	\$0		\$5
2006	\$65	\$14	\$0	\$79	\$2	\$3	\$0	\$0		\$5
2007	\$67	\$15	\$0	\$82	\$2	\$3	\$0	\$0		\$5
2008	\$69	\$15	\$0	\$84	\$2	\$3	\$0	\$0		\$5
2009	\$71	\$16	\$0	\$87	\$2	\$3	\$0	\$0		\$5
2010	\$73	\$16	\$0	\$89	\$2	\$3	\$0	\$0		\$5
2011	\$76	\$17	\$0	\$93	\$2	\$3	\$0	\$0		\$5
2012	\$78	\$17	\$0	\$95	\$2	\$3	\$0	\$0		\$5
2013	\$80	\$18	\$0	\$98	\$2	\$3	\$0	\$0		\$5
2014	\$83	\$18	\$0	\$101	\$2	\$3	\$0	\$0		\$5
2015	\$85	\$19	\$0	\$104	\$2	\$4	\$0	\$0		\$5
2016	\$88	\$19	\$0	\$107	\$2	\$4	\$0	\$0		\$5
2017	\$90	\$20	\$0	\$110	\$1	\$4	\$0	\$0		\$5
2018	\$93	\$21	\$0	\$114	\$1	\$4	\$0	\$0		\$5
2019	\$96	\$21	\$0	\$117	\$1	\$4	\$0	\$0		\$5
2020	\$99	\$22	\$0	\$121	\$1	\$4	\$0	\$0		\$5
2021	\$102	\$23	\$0	\$125	\$1	\$4	\$0	\$0		\$5

Present Value
of Benefits \$870

Present Value
Of Costs \$153

Benefit/Cost Ratio	5.67
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Table 1

Dryer

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	64	\$0.56654	\$0.34000	\$0.90654	\$58
2003	64	\$0.58354	\$0.35020	\$0.93374	\$60
2004	64	\$0.60104	\$0.36071	\$0.96175	\$62
2005	64	\$0.61907	\$0.37153	\$0.99060	\$63
2006	64	\$0.63765	\$0.38267	\$1.02032	\$65
2007	64	\$0.65678	\$0.39415	\$1.05093	\$67
2008	64	\$0.67648	\$0.40598	\$1.08246	\$69
2009	64	\$0.69677	\$0.41816	\$1.11493	\$71
2010	64	\$0.71768	\$0.43070	\$1.14838	\$73
2011	64	\$0.73921	\$0.44362	\$1.18283	\$76
2012	64	\$0.76138	\$0.45693	\$1.21831	\$78
2013	64	\$0.78422	\$0.47064	\$1.25486	\$80
2014	64	\$0.80775	\$0.48476	\$1.29251	\$83
2015	64	\$0.83198	\$0.49930	\$1.33128	\$85
2016	64	\$0.85694	\$0.51428	\$1.37122	\$88
2017	64	\$0.88265	\$0.52971	\$1.41236	\$90
2018	64	\$0.90913	\$0.54560	\$1.45473	\$93
2019	64	\$0.93640	\$0.56197	\$1.49837	\$96
2020	64	\$0.96450	\$0.57883	\$1.54332	\$99
2021	64	\$0.99343	\$0.59619	\$1.58962	\$102

Table 3

Dryer

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Svc
2002	50	104	366	86	4.68%	\$502	\$4
2003	49	101	352	83	4.68%	\$484	\$3
2004	48	98	338	80	4.68%	\$468	\$2
2005	47	95	325	77	4.68%	\$449	\$2
2006	46	93	312	74	4.68%	\$432	\$2
2007	45	91	300	71	4.68%	\$416	\$2
2008	44	89	288	69	4.68%	\$401	\$2
2009	0	87	277	67	4.68%	\$344	\$2
2010	42	85	266	65	4.68%	\$373	\$2
2011	41	83	256	63	4.68%	\$360	\$2
2012	40	81	246	61	4.68%	\$347	\$2
2013	39	79	236	59	4.68%	\$334	\$2
2014	38	77	227	57	4.68%	\$322	\$2
2015	37	75	218	55	4.68%	\$310	\$2
2016	36	73	209	53	4.68%	\$298	\$2
2017	35	71	201	51	4.68%	\$287	\$1
2018	34	69	193	49	4.68%	\$276	\$1
2019	33	67	185	47	4.68%	\$265	\$1
2020	32	65	178	45	4.68%	\$255	\$1
2021	31	63	171	43	4.68%	\$245	\$1

Table 2

Dryer

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	7.00	\$84	15.30%	\$13
2003	7.21	\$87	15.30%	\$13
2004	7.43	\$89	15.30%	\$14
2005	7.65	\$92	15.30%	\$14
2006	7.88	\$95	15.30%	\$14
2007	8.11	\$97	15.30%	\$15
2008	8.36	\$100	15.30%	\$15
2009	8.61	\$103	15.30%	\$16
2010	8.87	\$106	15.30%	\$16
2011	9.13	\$110	15.30%	\$17
2012	9.41	\$113	15.30%	\$17
2013	9.69	\$116	15.30%	\$18
2014	9.98	\$120	15.30%	\$18
2015	10.28	\$123	15.30%	\$19
2016	10.59	\$127	15.30%	\$19
2017	10.91	\$131	15.30%	\$20
2018	11.23	\$135	15.30%	\$21
2019	11.57	\$139	15.30%	\$21
2020	11.92	\$143	15.30%	\$22
2021	12.27	\$147	15.30%	\$23

Table 4

Dryer

Year	Adm. Cost	Annual Adm. Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	\$1	\$16	15.30%	\$2
2003	\$1	\$16	15.30%	\$3
2004	\$1	\$17	15.30%	\$3
2005	\$1	\$17	15.30%	\$3
2006	\$2	\$18	15.30%	\$3
2007	\$2	\$19	15.30%	\$3
2008	\$2	\$19	15.30%	\$3
2009	\$2	\$20	15.30%	\$3
2010	\$2	\$20	15.30%	\$3
2011	\$2	\$21	15.30%	\$3
2012	\$2	\$22	15.30%	\$3
2013	\$2	\$22	15.30%	\$3
2014	\$2	\$23	15.30%	\$3
2015	\$2	\$23	15.30%	\$4
2016	\$2	\$24	15.30%	\$4
2017	\$2	\$25	15.30%	\$4
2018	\$2	\$26	15.30%	\$4
2019	\$2	\$26	15.30%	\$4
2020	\$2	\$27	15.30%	\$4
2021	\$2	\$28	15.30%	\$4

Table 5

Dryer

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	64	32	32	0.0000	0.0000	1.00	\$0
2003	64	32	32	0.0000	0.0000	1.00	\$0
2004	64	32	32	0.0000	0.0000	1.00	\$0
2005	64	32	32	0.0000	0.0000	1.00	\$0
2006	64	32	32	0.0000	0.0000	1.00	\$0
2007	64	32	32	0.0000	0.0000	1.00	\$0
2008	64	32	32	0.0000	0.0000	1.00	\$0
2009	64	32	32	0.0000	0.0000	1.00	\$0
2010	64	32	32	0.0000	0.0000	1.00	\$0
2011	64	32	32	0.0000	0.0000	1.00	\$0
2012	64	32	32	0.0000	0.0000	1.00	\$0
2013	64	32	32	0.0000	0.0000	1.00	\$0
2014	64	32	32	0.0000	0.0000	1.00	\$0
2015	64	32	32	0.0000	0.0000	1.00	\$0
2016	64	32	32	0.0000	0.0000	1.00	\$0
2017	64	32	32	0.0000	0.0000	1.00	\$0
2018	64	32	32	0.0000	0.0000	1.00	\$0
2019	64	32	32	0.0000	0.0000	1.00	\$0
2020	64	32	32	0.0000	0.0000	1.00	\$0
2021	64	32	32	0.0000	0.0000	1.00	\$0

Rate Impact Measure Test Data

All Costs in 2002 Dollars Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement Gas Rate Number Electric Rate Number

Gas Measure:	Range	Alternate Option:	Range
		Alt FuelType:	Electric
Allowance:	\$50		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of New Smyrna Beach

	\$
1. Avoided Meter Removal Cost	\$0
2. Avoided Cut & Cap Cost	0
Total Costs	\$0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	42.0	42.0	84.0
3. Seasonal Rate			0.0
Total	42.0	42.0	84.0

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$7.00
14. Ratio of Therms Consumed to Total	20.00%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	\$606
5. Utility Allowance	\$50
6. Program Cost	\$56
7. New Customer Admin. Cost \$/month	\$1
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.90	.88
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced

1. Energy Factor		1.00	
Therms Displaced	Winter	Summer	Total
2. Standard Rate	0.00	0.00	0.00
Total	0.00	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			
3. Consumed Existing			
4. Displaced			

Rate Impact Measure Test Data

Range

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Meter & Service Line Removal	Total Columns 2 thru 4	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Main O&M Table 4	Gas Supply Cost Table 5	Other Cost	Program & Allowance Cost	Total Columns 6 thru 10
1	2	3	4	5	6	7	8	9	10	11
1998	\$76	\$17	\$0	\$93	\$5	\$3	\$0	\$0	\$106	\$114
1999	\$78	\$17	\$0	\$95	\$2	\$3	\$0	\$0		\$5
2000	\$81	\$18	\$0	\$99	\$2	\$3	\$0	\$0		\$5
2001	\$83	\$18	\$0	\$101	\$2	\$3	\$0	\$0		\$5
2002	\$86	\$19	\$0	\$105	\$2	\$4	\$0	\$0		\$5
2003	\$88	\$19	\$0	\$107	\$1	\$4	\$0	\$0		\$5
2004	\$91	\$20	\$0	\$111	\$1	\$4	\$0	\$0		\$5
2005	\$94	\$21	\$0	\$115	\$1	\$4	\$0	\$0		\$5
2006	\$96	\$21	\$0	\$117	\$1	\$4	\$0	\$0		\$5
2007	\$99	\$22	\$0	\$121	\$1	\$4	\$0	\$0		\$5
2008	\$102	\$23	\$0	\$125	\$1	\$4	\$0	\$0		\$5
2009	\$105	\$23	\$0	\$128	\$1	\$4	\$0	\$0		\$6
2010	\$109	\$24	\$0	\$133	\$1	\$5	\$0	\$0		\$6
2011	\$112	\$25	\$0	\$137	\$1	\$5	\$0	\$0		\$6
2012	\$115	\$25	\$0	\$140	\$1	\$5	\$0	\$0		\$6
2013	\$119	\$26	\$0	\$145	\$1	\$5	\$0	\$0		\$6
2014	\$122	\$27	\$0	\$149	\$1	\$5	\$0	\$0		\$6
2015	\$126	\$28	\$0	\$154	\$1	\$5	\$0	\$0		\$6
2016	\$130	\$29	\$0	\$159	\$1	\$5	\$0	\$0		\$6
2017	\$134	\$29	\$0	\$163	\$1	\$6	\$0	\$0		\$6

Present Value
Of Benefits

\$1,142

Present Value
Of Costs

\$154

Benefit/Cost
Ratio

7.43

Table 1

Range

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
2002	84	\$0.56654	\$0.34000	\$0.90654	\$76
2003	84	\$0.58354	\$0.35020	\$0.93374	\$78
2004	84	\$0.60104	\$0.36071	\$0.96175	\$81
2005	84	\$0.61907	\$0.37153	\$0.99060	\$83
2006	84	\$0.63765	\$0.38267	\$1.02032	\$86
2007	84	\$0.65678	\$0.39415	\$1.05093	\$88
2008	84	\$0.67648	\$0.40598	\$1.08246	\$91
2009	84	\$0.69677	\$0.41816	\$1.11493	\$94
2010	84	\$0.71768	\$0.43070	\$1.14838	\$96
2011	84	\$0.73921	\$0.44362	\$1.18283	\$99
2012	84	\$0.76138	\$0.45693	\$1.21831	\$102
2013	84	\$0.78422	\$0.47064	\$1.25486	\$105
2014	84	\$0.80775	\$0.48476	\$1.29251	\$109
2015	84	\$0.83198	\$0.49930	\$1.33128	\$112
2016	84	\$0.85694	\$0.51428	\$1.37122	\$115
2017	84	\$0.88265	\$0.52971	\$1.41236	\$119
2018	84	\$0.90913	\$0.54560	\$1.45473	\$122
2019	84	\$0.93640	\$0.56197	\$1.49837	\$126
2020	84	\$0.96450	\$0.57883	\$1.54332	\$130
2021	84	\$0.99343	\$0.59619	\$1.58962	\$134

Table 3

Range

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Svc
2002	50	104	366	86	4.68%	\$502	\$5
2003	49	101	352	83	4.68%	\$484	\$2
2004	48	98	339	80	4.68%	\$467	\$2
2005	47	95	326	77	4.68%	\$450	\$2
2006	46	93	313	74	4.68%	\$433	\$2
2007	45	91	300	71	4.68%	\$416	\$1
2008	44	89	287	68	4.68%	\$399	\$1
2009	43	87	274	65	4.68%	\$382	\$1
2010	42	85	261	62	4.68%	\$365	\$1
2011	41	83	248	59	4.68%	\$348	\$1
2012	40	81	235	56	4.68%	\$331	\$1
2013	39	79	222	53	4.68%	\$314	\$1
2014	38	77	209	50	4.68%	\$297	\$1
2015	37	75	196	47	4.68%	\$280	\$1
2016	36	73	183	44	4.68%	\$263	\$1
2017	35	71	170	41	4.68%	\$246	\$1
2018	34	69	157	38	4.68%	\$229	\$1
2019	33	67	144	35	4.68%	\$212	\$1
2020	32	65	131	32	4.68%	\$195	\$1
2021	31	63	118	29	4.68%	\$178	\$1

Table 2

Range

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	7.00	\$84	20.00%	\$17
2003	7.21	\$87	20.00%	\$17
2004	7.43	\$89	20.00%	\$18
2005	7.65	\$92	20.00%	\$18
2006	7.88	\$95	20.00%	\$19
2007	8.11	\$97	20.00%	\$19
2008	8.36	\$100	20.00%	\$20
2009	8.61	\$103	20.00%	\$21
2010	8.87	\$106	20.00%	\$21
2011	9.13	\$110	20.00%	\$22
2012	9.41	\$113	20.00%	\$23
2013	9.69	\$116	20.00%	\$23
2014	9.98	\$120	20.00%	\$24
2015	10.28	\$123	20.00%	\$25
2016	10.59	\$127	20.00%	\$25
2017	10.91	\$131	20.00%	\$26
2018	11.23	\$135	20.00%	\$27
2019	11.57	\$139	20.00%	\$28
2020	11.92	\$143	20.00%	\$29
2021	12.27	\$147	20.00%	\$29

Table 4

Range

Year	Adm. Cost	Annual Adm. Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	\$1	\$16	20.00%	\$3
2003	\$1	\$16	20.00%	\$3
2004	\$1	\$17	20.00%	\$3
2005	\$1	\$17	20.00%	\$3
2006	\$2	\$18	20.00%	\$4
2007	\$2	\$19	20.00%	\$4
2008	\$2	\$19	20.00%	\$4
2009	\$2	\$20	20.00%	\$4
2010	\$2	\$20	20.00%	\$4
2011	\$2	\$21	20.00%	\$4
2012	\$2	\$22	20.00%	\$4
2013	\$2	\$22	20.00%	\$4
2014	\$2	\$23	20.00%	\$5
2015	\$2	\$23	20.00%	\$5
2016	\$2	\$24	20.00%	\$5
2017	\$2	\$25	20.00%	\$5
2018	\$2	\$26	20.00%	\$5
2019	\$2	\$26	20.00%	\$5
2020	\$2	\$27	20.00%	\$5
2021	\$2	\$28	20.00%	\$6

Table 5

Range

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	84	42	42	0.0000	0.0000	1.00	\$0
2003	84	42	42	0.0000	0.0000	1.00	\$0
2004	84	42	42	0.0000	0.0000	1.00	\$0
2005	84	42	42	0.0000	0.0000	1.00	\$0
2006	84	42	42	0.0000	0.0000	1.00	\$0
2007	84	42	42	0.0000	0.0000	1.00	\$0
2008	84	42	42	0.0000	0.0000	1.00	\$0
2009	84	42	42	0.0000	0.0000	1.00	\$0
2010	84	42	42	0.0000	0.0000	1.00	\$0
2011	84	42	42	0.0000	0.0000	1.00	\$0
2012	84	42	42	0.0000	0.0000	1.00	\$0
2013	84	42	42	0.0000	0.0000	1.00	\$0
2014	84	42	42	0.0000	0.0000	1.00	\$0
2015	84	42	42	0.0000	0.0000	1.00	\$0
2016	84	42	42	0.0000	0.0000	1.00	\$0
2017	84	42	42	0.0000	0.0000	1.00	\$0
2018	84	42	42	0.0000	0.0000	1.00	\$0
2019	84	42	42	0.0000	0.0000	1.00	\$0
2020	84	42	42	0.0000	0.0000	1.00	\$0
2021	84	42	42	0.0000	0.0000	1.00	\$0

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement
Program Gas Rate Number

Gas Measure:	Water Heater	40 Gallon	Alternate Option:	Electric Resistance Water Heater	50 Gallons
			Alt FuelType:	Electric	
Allowance:	330				
Gas Utility:	Florida Public Utilities Company		Electric Utility:	Utilities Commission of NSB	

I. Installed Cost Data

	\$
1. Equipment	178
2. Installation	300
Total Cust. Cost	478
3. Utility Rebate	330
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	72	48	120
3. Seasonal Rate			0
Total	72	48	120

4. Electric Consumption in KWH

5. O&M (excluding energy) 7

Gas Rates	Rate
6. Base, Winter	0.56654
Base, Summer	0.56654
Seasonal, Winter	
Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%

13. Customer Chg 7

14. Ratio of Therms Consumed to Total 28.80%

15. Average Life 12

III. Common Gas & Electric Data

1. Discount Rate 0.0796

IV. Installed Cost Data

	\$
1. Equipment	120
2. Installation	217
Total Cust. Cost	337
3. Utility Allowance	0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3600	3600
3. Annual Oil Gallon:	0	0
4. Annual Gas Therm	0	0

Winter Summer

5. Diversified KW

6. Billing KW

7. O&M (excluding energy)	9
8. Monthly Utility Incentive	0
9. Average Life in Yrs	14
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	0.0728
12. Electric Rate per KW, Winter	0
13. Electric Rate per KW, Summer	0
14. Electric Taxes & Fees	16.00%
15. Customer Chg	5.65

VI. Therms Displaced

1. Energy Factor 1

Therms Displaced Winter Summer

2. Standard Rate		
Total	0	0

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil 3	Consumed -Conserved 2002 Gas Therms Table 2	Alternate Appliance O&M 5	Gas Appliance O&M 6	Gas Customer Charge Table 3 7	Gas Rebate 8	Alternate Appliance Rebate 9	Total Benefits 2+3-4+5 -6-7+8-9 10	Alternate Appliance Installed Cost 11	Gas Appliance Installed Cost 12	Total Cost 12-11 13
1	2	3	4	5	6	7	8	9	10	11	12	13
1998	3163	0	143	9	7	35	330	0	3317	337	478	141
1999	3258	0	147	9	7	36	0	0	89	0	0	0
2000	3356	0	152	10	7	37	0	0	91	0	0	0
2001	3457	0	156	10	8	38	0	0	94	0	0	0
2002	3560	0	161	10	8	40	0	0	97	0	0	0
2003	3667	0	166	10	8	41	0	0	100	0	0	0
2004	3777	0	171	11	8	42	0	0	103	0	0	0
2005	3890	0	176	11	9	43	0	0	106	0	0	0
2006	4007	0	181	11	9	45	0	0	109	0	0	0
2007	4127	0	186	12	9	46	0	0	112	0	0	0
2008	4251	0	192	12	9	47	0	0	116	0	0	0
2009	4379	0	198	12	10	49	0	0	119	0	0	0
2010	4510	0	204	13	10	50	0	0	123	0	0	0
2011	4645	0	210	13	10	52	0	0	127	0	0	0
2012	4785	0	216	14	11	53	0	0	130	0	0	0
2013	4928	0	223	14	11	55	0	0	134	0	0	0
2014	5076	0	229	14	11	57	0	0	138	0	0	0
2015	5228	0	236	15	12	58	0	0	142	0	0	0
2016	5385	0	243	15	12	60	0	0	147	0	0	0
2017	5547	0	250	16	12	62	0	0	151	0	0	0

Present Value
of Benefits

\$4,051

Present Value
of Costs

\$131

Benefit/Cost Ratio	31.02
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TABLE 1 Part.
Electric KW Cost Water

1	2	3	4	3'2'4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	0.7730	3600	16.00%	\$3,163
2003	0.7962	3600	16.00%	\$3,258
2004	0.8201	3600	16.00%	\$3,356
2005	0.8447	3600	16.00%	\$3,457
2006	0.8700	3600	16.00%	\$3,560
2007	0.8961	3600	16.00%	\$3,667
2008	0.9230	3600	16.00%	\$3,777
2009	0.9507	3600	16.00%	\$3,890
2010	0.9792	3600	16.00%	\$4,007
2011	1.0086	3600	16.00%	\$4,127
2012	1.0388	3600	16.00%	\$4,251
2013	1.0700	3600	16.00%	\$4,379
2014	1.1021	3600	16.00%	\$4,510
2015	1.1352	3600	16.00%	\$4,645
2016	1.1692	3600	16.00%	\$4,785
2017	1.2043	3600	16.00%	\$4,928
2018	1.2404	3600	16.00%	\$5,076
2019	1.2777	3600	16.00%	\$5,228
2020	1.3160	3600	16.00%	\$5,385
2021	1.3555	3600	16.00%	\$5,547

TABLE 2 Consumed-Displaced-Conserved - Therms Water

1	2	3	4	3'2'4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
2002	0.9065	120	16.00%	\$124
2003	0.9337	120	16.00%	\$127
2004	0.9617	120	16.00%	\$131
2005	0.9906	120	16.00%	\$135
2006	1.0203	120	16.00%	\$139
2007	1.0509	120	16.00%	\$143
2008	1.0825	120	16.00%	\$148
2009	1.1149	120	16.00%	\$152
2010	1.1484	120	16.00%	\$157
2011	1.1828	120	16.00%	\$161
2012	1.2183	120	16.00%	\$166
2013	1.2549	120	16.00%	\$171
2014	1.2925	120	16.00%	\$176
2015	1.3313	120	16.00%	\$182
2016	1.3712	120	16.00%	\$187
2017	1.4124	120	16.00%	\$193
2018	1.4547	120	16.00%	\$198
2019	1.4984	120	16.00%	\$204
2020	1.5433	120	16.00%	\$211
2021	1.5896	120	16.00%	\$217

TABLE 3 Gas Customer Charge Water

1	2	3	4	5	6	3'6'16%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Vtr. Htr Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	7.00	78.00	120	418	28.71%	3.58
2003	6.70	80.34	120	418	28.71%	3.69
2004	6.90	82.75	120	418	28.71%	3.80
2005	7.10	85.23	120	418	28.71%	3.91
2006	7.32	87.79	120	418	28.71%	4.03
2007	7.54	90.42	120	418	28.71%	4.15
2008	7.76	93.14	120	418	28.71%	4.28
2009	7.99	95.93	120	418	28.71%	4.41
2010	8.23	98.81	120	418	28.71%	4.54
2011	8.48	101.77	120	418	28.71%	4.67
2012	8.74	104.83	120	418	28.71%	4.82
2013	9.00	107.97	120	418	28.71%	4.96
2014	9.27	111.21	120	418	28.71%	5.11
2015	9.55	114.55	120	418	28.71%	5.26
2016	9.83	117.98	120	418	28.71%	5.42
2017	10.13	121.52	120	418	28.71%	5.58
2018	10.43	125.17	120	418	28.71%	5.75
2019	10.74	128.92	120	418	28.71%	5.92
2020	11.07	132.79	120	418	28.71%	6.10
2021	11.40	136.77	120	418	28.71%	6.28

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement Program Gas Rate Number Electric Rate Number

Gas Measure:	Furnace	Alternate Option:	Electric Resistance Furnace
		Alt FuelType:	Electric
Allowance:	330		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	2280
2. Installation	667
Total Cust. Cost	2947

3. Utility Rebate	330
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	150	0	150
3. Seasonal Rate			0
Total	150	0	150

4. Electric Consumption in KWH

5. O&M (excluding energy)	14
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Gas Rates

	Rate
6. Base, Winter	0.56654
7. Base, Summer	0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34
11. PGA, Summer	0.34
12. Taxes & Fees	16.00%

13. Customer Chg	7.00
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14. Ratio of Therms Consumed to Total	35.90%
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15. Average Life	18
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III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. Installed Cost Data

	\$
1. Equipment	1517
2. Installation	609
Total Cust. Cost	\$2,126

3. Utility Allowance	0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1	1
2. Annual KWH	5869	5869
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	0	0

	Winter	Summer
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5. Diversified KW

6. Billing KW

7. O&M (excluding energy)	9
8. Monthly Utility Incentive	0
9. Average Life in Yrs	18
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	0.0773
12. Electric Rate per KW, Winter	0
13. Electric Rate per KW, Summer	0
14. Electric Taxes & Fees	16.00%
15. Customer Chg	5.65

VI. Therms Displaced

1. Energy Factor	1
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Therms Displaced	Winter	Summer
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2. Standard Rate

Total	0	0
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PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	516	0	155	9	14	32	330	0	654	2126	2947	821
2003	531	0	155	9	14	33	0	0	119	0	0	0
2004	547	0	160	10	15	34	0	0	123	0	0	0
2005	564	0	164	10	15	35	0	0	127	0	0	0
2006	580	0	169	10	16	36	0	0	131	0	0	0
2007	598	0	174	10	16	37	0	0	135	0	0	0
2008	616	0	180	11	17	38	0	0	139	0	0	0
2009	634	0	185	11	17	39	0	0	143	0	0	0
2010	653	0	191	11	18	40	0	0	147	0	0	0
2011	673	0	196	12	18	42	0	0	151	0	0	0
2012	693	0	202	12	19	43	0	0	156	0	0	0
2013	714	0	208	12	19	44	0	0	161	0	0	0
2014	735	0	215	13	20	45	0	0	165	0	0	0
2015	757	0	221	13	21	47	0	0	170	0	0	0
2016	780	0	228	14	21	48	0	0	175	0	0	0
2017	803	0	234	14	22	50	0	0	180	0	0	0
2018	828	0	241	14	22	51	0	0	186	0	0	0
2019	852	0	249	15	23	53	0	0	192	0	0	0
2020	878	0	256	15	24	54	0	0	197	0	0	0
2021	904	0	264	16	25	56	0	0	203	0	0	0

Present Value
of Benefits

\$1,924

Present Value
of Costs

\$760

Benefit/Cost Ratio	2.53
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TABLE 1 Electric KW Cost Furnace

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	0.0773	5869	16.00%	516
2003	0.0796	5869	16.00%	531
2004	0.0820	5869	16.00%	547
2005	0.0845	5869	16.00%	564
2006	0.0870	5869	16.00%	580
2007	0.0896	5869	16.00%	598
2008	0.0923	5869	16.00%	616
2009	0.0951	5869	16.00%	634
2010	0.0979	5869	16.00%	653
2011	0.1009	5869	16.00%	673
2012	0.1039	5869	16.00%	693
2013	0.1070	5869	16.00%	714
2014	0.1102	5869	16.00%	735
2015	0.1135	5869	16.00%	757
2016	0.1169	5869	16.00%	780
2017	0.1204	5869	16.00%	803
2018	0.1240	5869	16.00%	828
2019	0.1278	5869	16.00%	852
2020	0.1316	5869	16.00%	878
2021	0.1355	5869	16.00%	904

TABLE 2 Consumed-Displaced-Conserved - Therms Furnace

1	2	3	4	3*2*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
2002	0.9065	150	16.00%	155
2003	0.9337	150	16.00%	159
2004	0.9617	150	16.00%	164
2005	0.9906	150	16.00%	169
2006	1.0203	150	16.00%	174
2007	1.0509	150	16.00%	179
2008	1.0825	150	16.00%	185
2009	1.1149	150	16.00%	190
2010	1.1484	150	16.00%	196
2011	1.1828	150	16.00%	202
2012	1.2183	150	16.00%	208
2013	1.2549	150	16.00%	214
2014	1.2925	150	16.00%	220
2015	1.3313	150	16.00%	227
2016	1.3712	150	16.00%	234
2017	1.4124	150	16.00%	241
2018	1.4547	150	16.00%	248
2019	1.4984	150	16.00%	255
2020	1.5433	150	16.00%	263
2021	1.5896	150	16.00%	271

TABLE 3 Gas Customer Charge Furnace

1	2	3	4	5	6	3*6*16%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Furnace Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	7.00	78.00	150	418	35.90%	32
2003	7.21	80.34	150	418	35.90%	33
2004	7.43	82.75	150	418	35.90%	34
2005	7.65	85.23	150	418	35.90%	35
2006	7.88	87.79	150	418	35.90%	36
2007	8.11	90.42	150	418	35.90%	37
2008	8.36	93.14	150	418	35.90%	38
2009	8.61	95.93	150	418	35.90%	39
2010	8.87	98.81	150	418	35.90%	40
2011	9.13	101.77	150	418	35.90%	42
2012	9.41	104.83	150	418	35.90%	43
2013	9.69	107.97	150	418	35.90%	44
2014	9.98	111.21	150	418	35.90%	45
2015	10.28	114.55	150	418	35.90%	47
2016	10.59	117.98	150	418	35.90%	48
2017	10.91	121.52	150	418	35.90%	50
2018	11.23	125.17	150	418	35.90%	51
2019	11.57	128.92	150	418	35.90%	53
2020	11.92	132.79	150	418	35.90%	54
2021	12.27	136.77	150	418	35.90%	56

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement

Program Gas Rate Number

Electric Rate Number

Gas Measure:	Dryer	Alternate Option:	Dryer
		Alt FuelType:	Electric
Allowance:	50		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	451
2. Installation	214
Total Cust. Cost	665

3. Utility Rebate	50
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	32	32	64
3. Seasonal Rate			0
Total	32	32	64

4. Electric Consumption in KWH

5. O&M (excluding energy)	10
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Gas Rates	Rate
6. Base, Winter	0.56654
7. Base, Summer	0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34
11. PGA, Summer	0.34
12. Taxes & Fees	16.00%

13. Customer Chg	7.00
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14. Ratio of Therms Consumed to Total	15.30%
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15. Average Life	13
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III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. Installed Cost Data

	\$
1. Equipment	398
2. Installation	120
Total Cust. Cost	\$518

3. Utility Allowance	
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1	1
2. Annual KWH	996	996
3. Annual Oil Gallons	0	0
4. Annual Gas Therm	0	0

	Winter	Summer
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5. Diversified KW

6. Billing KW

7. O&M (excluding energy)	14
8. Monthly Utility Incentive	0
9. Average Life in Yrs	13
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	0.0773
12. Electric Rate per KW, Winter	0
13. Electric Rate per KW, Summer	0
14. Electric Taxes & Fees	16.00%
15. Customer Chg	5.65

VI. Therms Displaced

1. Energy Factor	1
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Therms Displaced	Winter	Summer
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2. Standard Rate		
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Total	0	0
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PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
1998	88	0	66	14	10	15	50	0	61	518	665	147
1999	90	0	68	14	10	15	0	0	11	0	0	0
2000	93	0	70	15	11	16	0	0	11	0	0	0
2001	96	0	72	15	11	16	0	0	12	0	0	0
2002	98	0	74	16	11	17	0	0	12	0	0	0
2003	101	0	76	16	12	17	0	0	12	0	0	0
2004	104	0	79	17	12	18	0	0	13	0	0	0
2005	108	0	81	17	12	18	0	0	13	0	0	0
2006	111	0	84	18	13	19	0	0	13	0	0	0
2007	114	0	86	18	13	19	0	0	14	0	0	0
2008	118	0	89	19	13	20	0	0	14	0	0	0
2009	121	0	91	19	14	21	0	0	15	0	0	0
2010	125	0	94	20	14	21	0	0	15	0	0	0
2011	129	0	97	21	15	22	0	0	16	0	0	0
2012	132	0	100	21	15	23	0	0	16	602	682	80
2013	136	0	103	22	16	23	0	0	17	0	0	0
2014	140	0	106	22	16	24	0	0	17	0	0	0
2015	145	0	109	23	17	25	0	0	18	0	0	0
2016	149	0	112	24	17	25	0	0	18	0	0	0
2017	153	0	116	25	18	26	0	0	19	0	0	0

Present Value
of Benefits

\$177

Present Value
of Costs

\$162

Benefit/Cost Ratio	1.10
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TABLE 1 Electric KW Cost Dryer

1	2	3	4	3'2'4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	0.0773	996	16.00%	87.52
2003	0.0796	996	16.00%	90.14
2004	0.0820	996	16.00%	92.85
2005	0.0845	996	16.00%	95.63
2006	0.0870	996	16.00%	98.50
2007	0.0896	996	16.00%	101.45
2008	0.0923	996	16.00%	104.50
2009	0.0951	996	16.00%	107.63
2010	0.0979	996	16.00%	110.86
2011	0.1009	996	16.00%	114.19
2012	0.1039	996	16.00%	117.61
2013	0.1070	996	16.00%	121.14
2014	0.1102	996	16.00%	124.78
2015	0.1135	996	16.00%	128.52
2016	0.1169	996	16.00%	132.37
2017	0.1204	996	16.00%	136.35
2018	0.1240	996	16.00%	140.44
2019	0.1278	996	16.00%	144.65
2020	0.1316	996	16.00%	148.99
2021	0.1355	996	16.00%	153.46

TABLE 2 Consumed-Displaced-Conserved - Therms Dryer

1	2	3	4	3'2'4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
2002	0.90654	64	16.00%	65.95
2003	0.93374	64	16.00%	67.93
2004	0.96175	64	16.00%	69.97
2005	0.99060	64	16.00%	72.07
2006	1.02032	64	16.00%	74.23
2007	1.05093	64	16.00%	76.45
2008	1.08246	64	16.00%	78.75
2009	1.11493	64	16.00%	81.11
2010	1.14939	64	16.00%	83.54
2011	1.18283	64	16.00%	86.05
2012	1.21831	64	16.00%	88.63
2013	1.25486	64	16.00%	91.29
2014	1.29251	64	16.00%	94.03
2015	1.33128	64	16.00%	96.85
2016	1.37122	64	16.00%	99.75
2017	1.41236	64	16.00%	102.75
2018	1.45473	64	16.00%	105.83
2019	1.49837	64	16.00%	109.00
2020	1.54332	64	16.00%	112.27
2021	1.58962	64	16.00%	115.64

TABLE 3 Gas Customer Charge Dryer

1	2	3	4	5	6	3'6+16.0%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Wtr. Htr Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	7.00	84.00	64	418	15.31%	14.92
2003	6.70	86.52	64	418	15.31%	15.37
2004	6.90	89.12	64	418	15.31%	15.83
2005	7.10	91.79	64	418	15.31%	16.30
2006	7.32	94.54	64	418	15.31%	16.79
2007	7.54	97.38	64	418	15.31%	17.30
2008	7.76	100.30	64	418	15.31%	17.81
2009	7.99	103.31	64	418	15.31%	18.35
2010	8.23	106.41	64	418	15.31%	18.90
2011	8.48	109.60	64	418	15.31%	19.47
2012	8.74	112.89	64	418	15.31%	20.06
2013	9.00	116.28	64	418	15.31%	20.65
2014	9.27	119.76	64	418	15.31%	21.27
2015	9.55	123.36	64	418	15.31%	21.91
2016	9.83	127.06	64	418	15.31%	22.57
2017	10.13	130.87	64	418	15.31%	23.24
2018	10.43	134.80	64	418	15.31%	23.94
2019	10.74	138.84	64	418	15.31%	24.66
2020	11.07	143.00	64	418	15.31%	25.40
2021	11.40	147.29	64	418	15.31%	26.16

Participants Cost Effectiveness Test Data

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Residential Appliance Replacement Program
Gas Rate Number

Electric Rate Number

Gas Measure:	Range	Alternate Option:	Range
		Alt FuelType:	Electric
Allowance:	\$50		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	\$595
2. Installation	\$150
Total Cust. Cost	\$745

3. Utility Rebate \$50
4. Other Rebate

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	42	42	84
3. Seasonal Rate			0
Total	42	42	84

4. Electric Consumption in KWH

5. O&M (excluding energy) 8

Gas Rates Rate

6. Base, Winter 0.56654

7. Base, Summer 0.56654

8. Seasonal, Winter

9. Seasonal, Summer

10. PGA, Winter 0.34000

11. PGA, Summer 0.34000

12. Taxes & Fees 16.00%

13. Customer Chg 7.00

14. Ratio of Therms Consumed to Total 20.00%

15. Average Life 19

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. Installed Cost Data

	\$
1. Equipment	562
2. Installation	120
Total Cust. Cost	\$682

3. Utility Allowance 0
4. Other Allowance

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1	1
2. Annual KWH	1020	1020
3. Annual Oil Gallons	0	0
4. Annual Gas Therm	0	0

Winter Summer

5. Diversified KW

6. Billing KW

7. O&M (excluding energy) 12

8. Monthly Utility Incentive 0

9. Average Life in Yrs 19

10. Existing Remaining Life in Yrs 0

11. Electric Rate per KWH 0.0773

12. Electric Rate per KW, Winter 0

13. Electric Rate per KW, Summer 0

14. Electric Taxes & Fees 16.00%

15. Customer Chg 5.65

VI. Therms Displaced

1. Energy Factor 1

Therms Displaced Winter Summer

2. Standard Rate

Total 0 0

PARTICIPANTS COST EFFECTIVE RESULTS

Range

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	90	0	87	12	8	19	50	0	52	682	745	63
2003	92	0	89	12	8	18	0	0	1	0	0	0
2004	95	0	92	13	8	19	0	0	1	0	0	0
2005	98	0	95	13	9	19	0	0	1	0	0	0
2006	101	0	97	14	9	20	0	0	1	0	0	0
2007	104	0	100	14	9	21	0	0	1	0	0	0
2008	107	0	103	14	10	21	0	0	1	0	0	0
2009	110	0	106	15	10	22	0	0	1	0	0	0
2010	114	0	110	15	10	23	0	0	1	0	0	0
2011	117	0	113	16	10	23	0	0	1	0	0	0
2012	120	0	116	16	11	24	0	0	1	0	0	0
2013	124	0	120	17	11	25	0	0	1	0	0	0
2014	128	0	123	17	11	25	0	0	1	0	0	0
2015	132	0	127	18	12	26	0	0	1	0	0	0
2016	136	0	131	18	12	27	0	0	1	0	0	0
2017	140	0	135	19	12	28	0	0	1	0	0	0
2018	144	0	139	19	13	29	0	0	1	0	0	0
2019	148	0	143	20	13	29	0	0	1	0	0	0
2020	153	0	147	20	14	30	0	0	2	0	0	0
2021	157	0	152	21	14	31	0	0	2	0	0	0

Present Value
of Benefits

\$58

Present Value
of Costs

\$58

Benefit/Cost Ratio	1.00
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TABLE 1 Electric KW Cost Range

1	2	3	4	3'2'4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	0.0773	1020	16.00%	89.62
2003	0.0796	1020	16.00%	92.31
2004	0.0820	1020	16.00%	95.08
2005	0.0845	1020	16.00%	97.93
2006	0.0870	1020	16.00%	100.87
2007	0.0896	1020	16.00%	103.90
2008	0.0923	1020	16.00%	107.02
2009	0.0951	1020	16.00%	110.23
2010	0.0979	1020	16.00%	113.53
2011	0.1009	1020	16.00%	116.94
2012	0.1039	1020	16.00%	120.45
2013	0.1070	1020	16.00%	124.06
2014	0.1102	1020	16.00%	127.78
2015	0.1135	1020	16.00%	131.62
2016	0.1169	1020	16.00%	135.56
2017	0.1204	1020	16.00%	139.63
2018	0.1240	1020	16.00%	143.82
2019	0.1278	1020	16.00%	148.14
2020	0.1316	1020	16.00%	152.58
2021	0.1355	1020	16.00%	157.16

TABLE 2 Consumed-Displaced-Conserved - Therms Range

1	2	3	4	3'2'4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
2002	0.90654	84	16.00%	86.56
2003	0.93374	84	16.00%	89.18
2004	0.96175	84	16.00%	91.83
2005	0.99060	84	16.00%	94.59
2006	1.02032	84	16.00%	97.42
2007	1.05093	84	16.00%	100.35
2008	1.08246	84	16.00%	103.38
2009	1.11493	84	16.00%	106.46
2010	1.14838	84	16.00%	109.65
2011	1.18283	84	16.00%	112.94
2012	1.21831	84	16.00%	116.33
2013	1.25486	84	16.00%	119.82
2014	1.29251	84	16.00%	123.41
2015	1.33128	84	16.00%	127.11
2016	1.37122	84	16.00%	130.93
2017	1.41236	84	16.00%	134.86
2018	1.45473	84	16.00%	138.90
2019	1.49837	84	16.00%	143.07
2020	1.54332	84	16.00%	147.36
2021	1.58962	84	16.00%	151.78

TABLE 3 Gas Customer Charge Range

1	2	3	4	5	6	3'6+16%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Range Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
2002	7.00	84.00	84	418	20.10%	19.19
2003	6.70	80.34	84	418	20.10%	18.35
2004	6.90	82.75	84	418	20.10%	18.90
2005	7.10	85.23	84	418	20.10%	19.47
2006	7.32	87.79	84	418	20.10%	20.05
2007	7.54	90.42	84	418	20.10%	20.65
2008	7.76	93.14	84	418	20.10%	21.28
2009	7.98	95.93	84	418	20.10%	21.91
2010	8.23	98.81	84	418	20.10%	22.57
2011	8.48	101.77	84	418	20.10%	23.25
2012	8.74	104.83	84	418	20.10%	23.95
2013	9.00	107.97	84	418	20.10%	24.66
2014	9.27	111.21	84	418	20.10%	25.40
2015	9.55	114.55	84	418	20.10%	26.17
2016	9.83	117.98	84	418	20.10%	26.95
2017	10.13	121.52	84	418	20.10%	27.76
2018	10.43	125.17	84	418	20.10%	28.59
2019	10.74	128.92	84	418	20.10%	29.45
2020	11.07	132.79	84	418	20.10%	30.33
2021	11.40	136.77	84	418	20.10%	31.24

DOCKET NO. 020004-GU
EXHIBIT C
PAGE 1 of 7

**FLORIDA PUBLIC UTILITIES COMPANY
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios**

Residential Water Heater Retention Program

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	350	32.27	5.99

Rate Impact Measure Test Data

All Costs in 2002

Analysis Start Year: 2002

Number of Years:

20

Gas Program: Residential Water Heater
Retention Program

Gas Rate Number

Electric Rate Number

Gas Measure: Water Heater 40 gallon

Alternate Option: Electric Resistance Water He 50 gallon
Alt FuelType: Electric

Allowance: \$350

Gas Utility: Florida Public Utilities Co.

Electric Utility: Utilities Commission of NSB

	\$
1. Avoided Meter Removal Cost	30
2. Avoided Cut & Cap Cost	300
Total Costs	330

II. Operating Data

1. Energy Factor 0.56

Therms Consumed	Winter	Summer	Total
2. Standard Rate	72.0	48.0	120.0
3. Seasonal Rate			0.0
Total	72.0	48.0	120.0

Gas Rates	Rate
5. Base, Winter	\$0.56654
6. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000

13. Customer Chg \$7.00

14. Ratio of Therms Consumed
to Total 28.80%

15. Average Life 12

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. New Customer Installation Costs

	\$
1. Supply Main	0
2. Development Main	0
3. Service	0
4. Meter	0
Total Cust. Cost	\$0

5. Utility Allowance	\$350
6. Program Cost	\$0
7. New Customer Admin. Cost \$/month	\$0
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	\$0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.88	.88
2. Annual Gas Therms	0.0	0.0

VII. Therms Displaced (not in VI 2.)

1. Energy Factor 1.00

Therms Displaced	Winter	Summer	Total
2. Standard Rate	0.00	0.00	0.00
Total	0.00	0.00	0.00

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			
3. Consumed Existing			
4. Displaced			

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Avoid Meter Service Line Removal 4	Total Columns 2 thru 4 5	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Main O&M Table 4	Gas Supply Cost Table 5	Other Cost Table 6	Program & Allowance Cost Table 7	Total Columns 6 thru 10 10
1	2	3	4	5	6	7	8	9	10	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
2000	109	24	330	463	0	0	0	0	350	350
2001	112	25		137	0	0	0	0		0
2002	115	26		141	0	0	0	0		0
2003	119	26		145	0	0	0	0		0
2004	122	27		149	0	0	0	0		0
2005	126	28		154	0	0	0	0		0
2006	130	29		159	0	0	0	0		0
2007	134	30		164	0	0	0	0		0
2008	138	31		169	0	0	0	0		0
2009	142	32		174	0	0	0	0		0
2010	146	33		179	0	0	0	0		0
2011	151	33		184	0	0	0	0		0
2012	155	34		189	0	0	0	0		0
2013	160	36		196	0	0	0	0		0
2014	165	37		202	0	0	0	0		0
2015	169	38		207	0	0	0	0		0
2016	175	39		214	0	0	0	0		0
2017	180	40		220	0	0	0	0		0
2018	185	41		226	0	0	0	0		0
2019	191	42		233	0	0	0	0		0

Present Value of Benefits \$1,941

Present Value of Costs \$324

Benefit/Cost Ratio 5.99

Table 1

1	2	3	4	5	5*2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms • Total Rate
2002	120	0.56654	0.34000	0.90654	109
2003	120	0.58354	0.35020	0.93374	112
2004	120	0.60104	0.36071	0.96175	115
2005	120	0.61907	0.37153	0.99060	119
2006	120	0.63765	0.38267	1.02032	122
2007	120	0.65678	0.39415	1.05093	126
2008	120	0.67648	0.40598	1.08246	130
2009	120	0.69677	0.41816	1.11493	134
2010	120	0.71768	0.43070	1.14838	138
2011	120	0.73921	0.44362	1.18283	142
2012	120	0.76138	0.45693	1.21831	146
2013	120	0.78422	0.47064	1.25486	151
2014	120	0.80775	0.48476	1.29251	155
2015	120	0.83198	0.49930	1.33128	160
2016	120	0.85694	0.51428	1.37122	165
2017	120	0.88265	0.52971	1.41236	169
2018	120	0.90913	0.54560	1.45473	175
2019	120	0.93640	0.56197	1.49837	180
2020	120	0.96450	0.57883	1.54332	185
2021	120	0.99343	0.59619	1.58962	191

Table 5

1	2	3	4	5	6	8	3*5*8+4*5+2*6)*
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2002	120	72	48	0.0000	0.0000	1.00	\$0
2003	120	72	48	0.0000	0.0000	1.00	\$0
2004	120	72	48	0.0000	0.0000	1.00	\$0
2005	120	72	67	0.0000	0.0000	1.00	\$0
2006	120	72	48	0.0000	0.0000	1.00	\$0
2007	120	72	48	0.0000	0.0000	1.00	\$0
2008	120	72	67	0.0000	0.0000	1.00	\$0
2009	120	72	48	0.0000	0.0000	1.00	\$0
2010	120	72	48	0.0000	0.0000	1.00	\$0
2011	120	72	48	0.0000	0.0000	1.00	\$0
2012	120	72	48	0.0000	0.0000	1.00	\$0
2013	120	72	48	0.0000	0.0000	1.00	\$0
2014	120	72	48	0.0000	0.0000	1.00	\$0
2015	120	72	48	0.0000	0.0000	1.00	\$0
2016	120	72	48	0.0000	0.0000	1.00	\$0
2017	120	72	48	0.0000	0.0000	1.00	\$0
2018	120	72	48	0.0000	0.0000	1.00	\$0
2019	120	72	48	0.0000	0.0000	1.00	\$0
2020	120	72	48	0.0000	0.0000	1.00	\$0
2021	120	72	48	0.0000	0.0000	1.00	\$0

Table 2

1	2	3	4	4*2
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	7.00	84	28.80%	\$24
2003	7.21	87	28.80%	\$25
2004	7.43	89	28.80%	\$26
2005	7.65	92	28.80%	\$26
2006	7.88	95	28.80%	\$27
2007	8.11	97	28.80%	\$28
2008	8.36	100	28.80%	\$29
2009	8.61	103	28.80%	\$30
2010	8.87	106	28.80%	\$31
2011	9.13	110	28.80%	\$32
2012	9.41	113	28.80%	\$33
2013	9.69	116	28.80%	\$33
2014	9.98	120	28.80%	\$34
2015	10.28	123	28.80%	\$36
2016	10.59	127	28.80%	\$37
2017	10.91	131	28.80%	\$38
2018	11.23	135	28.80%	\$39
2019	11.57	139	28.80%	\$40
2020	11.92	143	28.80%	\$41
2021	12.27	147	28.80%	\$42

Participants Cost Effectiveness Test Data

All Costs in 2002 Analysis Start Year: 2002 Number of Years: 20

Gas Program:	Residential Water Heater Retention Program		Gas Rate Number	Electric Rate Number
Gas Measure:	Water Heater	40 gallon	Alternate Option:	Electric Resistance Water Heater 50 gallon
			Alt FuelType:	Electric
Allowance:	\$350			
Gas Utility:	Florida Public Utilities Company		Electric Utility:	Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	\$293
2. Installation	195
Total Cust. Cost	\$488
3. Utility Rebate	\$350
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	72.0	48.0	120.0
3. Seasonal Rate			0.0
Total	72.0	48.0	120.0

4. Electric Consumption in KWH

5. O&M (excluding energy) \$7

Gas Rates	Rate
a. Base, Winter	\$0.56654
Base, Summer	\$0.56654
d. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$7.00
14. Ratio of Therms Consumed to Total	28.80%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. Installed Cost Data

	\$
1. Equipment	\$247
2. Installation	160
Total Cust. Cost	\$407
3. Utility Allowance	\$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3,600	3,600
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	0	0

5. Diversified KW

6. Billing KW

7. O&M (excluding energy)	\$9
8. Monthly Utility Incentive	\$0
9. Average Life in Yrs	14
10. Existing Remaining Life in Yrs	0
11. Electric Rate per KWH	\$0.0773
12. Electric Rate per KW, Winter	\$0.0000
13. Electric Rate per KW, Summer	\$0.0000
14. Electric Taxes & Fees	16.00%
15. Customer Chg	\$5.65

VI. Therms Displaced (not in V. 4.)

1. Energy Factor 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
1998	\$323	\$0	\$126	\$9	\$7	\$28	\$350	\$0	\$521	\$407	\$488	\$81
1999	\$332	\$0	\$130	\$9	\$7	\$29	0	0	\$176	0	0	0
2000	\$342	\$0	\$134	\$10	\$7	\$30	0	0	\$181	0	0	0
2001	\$353	\$0	\$138	\$10	\$8	\$31	0	0	\$186	0	0	0
2002	\$363	\$0	\$142	\$10	\$8	\$31	0	0	\$192	0	0	0
2003	\$374	\$0	\$146	\$10	\$8	\$32	0	0	\$198	0	0	0
2004	\$385	\$0	\$151	\$11	\$8	\$33	0	0	\$204	0	0	0
2005	\$397	\$0	\$155	\$11	\$9	\$34	0	0	\$210	0	0	0
2006	\$409	\$0	\$160	\$11	\$9	\$35	0	0	\$216	0	0	0
2007	\$421	\$0	\$165	\$12	\$9	\$36	0	0	\$223	0	0	0
2008	\$434	\$0	\$170	\$12	\$9	\$38	0	0	\$229	0	0	0
2009	\$447	\$0	\$175	\$12	\$10	\$39	0	0	\$236	0	0	0
2010	\$460	\$0	\$180	\$13	\$10	\$40	0	0	\$243	0	0	0
2011	\$474	\$0	\$185	\$13	\$10	\$41	0	0	\$251	0	0	0
2012	\$488	\$0	\$191	\$14	\$11	\$42	0	0	\$258	0	0	0
2013	\$502	\$0	\$197	\$14	\$11	\$44	0	0	\$265	0	0	0
2014	\$518	\$0	\$202	\$14	\$11	\$45	0	0	\$274	0	0	0
2015	\$534	\$0	\$209	\$15	\$12	\$46	0	0	\$282	0	0	0
2016	\$550	\$0	\$215	\$15	\$12	\$48	0	0	\$290	0	0	0
2017	\$566	\$0	\$221	\$16	\$12	\$49	0	0	\$299	0	0	0

Present Value
of Benefits

\$2,421

Present Value
of Costs

\$75

Benefit/Cost Ratio	32.27
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TABLE 1

1	2	3	4	3*2*4
Year	KVWH Cost	Annual KVWH	Tax & Fees	Electric Cost
2002	\$0.0773	3,600	16.00%	\$323
2003	\$0.0796	3,600	16.00%	\$332
2004	\$0.0820	3,600	16.00%	\$342
2005	\$0.0845	3,600	16.00%	\$353
2006	\$0.0870	3,600	16.00%	\$363
2007	\$0.0896	3,600	16.00%	\$374
2008	\$0.0923	3,600	16.00%	\$385
2009	\$0.0951	3,600	16.00%	\$397
2010	\$0.0979	3,600	16.00%	\$409
2011	\$0.1009	3,600	16.00%	\$421
2012	\$0.1039	3,600	16.00%	\$434
2013	\$0.1070	3,600	16.00%	\$447
2014	\$0.1102	3,600	16.00%	\$460
2015	\$0.1135	3,600	16.00%	\$474
2016	\$0.1169	3,600	16.00%	\$488
2017	\$0.1203	3,600	16.00%	\$502
2018	\$0.1240	3,600	16.00%	\$518
2019	\$0.1278	3,600	16.00%	\$534
2020	\$0.1316	3,600	16.00%	\$550
2021	\$0.1355	3,600	16.00%	\$566

TABLE 2

1	2	3	4	3*2*4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
2002	\$0.9065	120	16.00%	\$126
2003	\$0.9337	120	16.00%	\$130
2004	\$0.9617	120	16.00%	\$134
2005	\$0.9906	120	16.00%	\$138
2006	\$1.0203	120	16.00%	\$142
2007	\$1.0509	120	16.00%	\$146
2008	\$1.0825	120	16.00%	\$151
2009	\$1.1149	120	16.00%	\$155
2010	\$1.1484	120	16.00%	\$160
2011	\$1.1828	120	16.00%	\$165
2012	\$1.2183	120	16.00%	\$170
2013	\$1.2549	120	16.00%	\$175
2014	\$1.2925	120	16.00%	\$180
2015	\$1.3313	120	16.00%	\$185
2016	\$1.3712	120	16.00%	\$191
2017	\$1.4124	120	16.00%	\$197
2018	\$1.4547	120	16.00%	\$202
2019	\$1.4984	120	16.00%	\$209
2020	\$1.5433	120	16.00%	\$215
2021	\$1.5896	120	16.00%	\$221

TABLE 3

1	2	3	4	5	6	3*6*16.00%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Wtr. Htr Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
2002	7.00	84	120	418	28.71%	\$28
2003	7.21	87	120	418	28.71%	\$29
2004	7.43	89	120	418	28.71%	\$30
2005	7.65	92	120	418	28.71%	\$31
2006	7.88	95	120	418	28.71%	\$31
2007	8.11	97	120	418	28.71%	\$32
2008	8.36	100	120	418	28.71%	\$33
2009	8.61	103	120	418	28.71%	\$34
2010	8.87	106	120	418	28.71%	\$35
2011	9.13	110	120	418	28.71%	\$36
2012	9.41	113	120	418	28.71%	\$38
2013	9.69	116	120	418	28.71%	\$39
2014	9.98	120	120	418	28.71%	\$40
2015	10.28	123	120	418	28.71%	\$41
2016	10.59	127	120	418	28.71%	\$42
2017	10.91	131	120	418	28.71%	\$44
2018	11.23	135	120	418	28.71%	\$45
2019	11.57	139	120	418	28.71%	\$46
2020	11.92	143	120	418	28.71%	\$48
2021	12.27	147	120	418	28.71%	\$49

DOCKET NO. 020004-GU
EXHIBIT D
PAGE 1 of 7

**FLORIDA PUBLIC UTILITIES COMPANY
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios**

**Natural Gas Space Conditioning
For Residential Homes Conditioning Program**

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	Rim B/C Ratio
Robur/Equivalent	1200	2.75	4.23

Rate Impact Measure Test Data

All Costs in 2000 dollars Number of Years: 20
Analysis Start Year: 2000
Gas Program: Natural Gas Space Gas Rate Number Electric Rate Number
Conditioning for Residential Homes

Gas Measure:	Robur/Equivalent Unit	Alternate Option:	14 SEER Heat Pump
		Alt FuelType:	Electric
Allowance:	\$1200		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

	\$
1. Avoided Meter Removal Cost	0
2. Avoided Cut & Cap Cost	0
Total Costs	0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	112	210	322
3. Seasonal Rate		579	579
Total	112	789	901

Gas Rates	Rate
6. Base, Winter	0.56654
7. Base, Summer	0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	0
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$7.00
14. Ratio of Therms Consumed to Total	1
15. Average Life	
III. Common Gas & Electric Data	
1. Discount Rate	7.96%

IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	606
5. Utility Allowance	1200
6. Program Cost	0
7. New Customer Admin. Cost \$/month	5
8. Main O&M (Percent)	57.00%

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	0
3. Winter Multiplier	1.00
4. Summer Multiplier	1
5. Transportation, Capacity, Peaking and Balancing C	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.9	.88
2. Annual Gas Therms	0	0

VII. Therms Displaced

1. Energy Factor			1
Therms Displaced	Winter	Summer	Total
2. Standard Rate	0	0	0
Total	0	0	0

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed	0.07671	0.07671	0.15342
2. Consumed New			

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Facilities O&M Table 4	Gas Supply Cost Table 5	Program & Allowance Cost	Cooling Total Columns 6 thru 9
1	2	3	4	5	6	7	8	9
\$	\$	\$	\$	\$	\$	\$	\$	\$
2002	817	84	901	26	148	0	1248	1396
2003	841	87	928	25	147	0		147
2004	867	89	956	24	147	0		147
2005	893	92	984	23	147	0		147
2006	919	95	1014	22	147	0		147
2007	947	97	1044	22	147	0		147
2008	975	100	1076	21	147	0		147
2009	1005	103	1108	20	147	0		147
2010	1035	106	1141	19	147	0		147
2011	1066	110	1175	19	148	0		148
2012	1098	113	1211	18	148	0		148
2013	1131	116	1247	17	149	0		149
2014	1165	120	1284	17	150	0		150
2015	1199	123	1323	16	150	0		150
2016	1235	127	1363	16	151	0		151
2017	1273	131	1403	15	153	0		153
2018	1311	135	1446	15	154	0		154
2019	1350	139	1489	14	155	0		155
2020	1391	143	1534	14	157	0		157
2021	1432	147	1580	13	158	0		158

Present Value
of Benefits

\$11,071

Present Value
of Costs

\$2,619

Benefit/Cost Ratio	4.23
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Table 1

Cooling

1	3	4	5	6	6*3+2
Year	Therms	Base Rate	PGA Rate	Seasonal rate	Therm Rate Therms *
2002	901	0.58654	0.34000	0	0.90654
2003	901	0.58354	0.35020	0	0.93374
2004	901	0.60104	0.36071	0	0.96175
2005	901	0.61907	0.37153	0	0.99080
2006	901	0.63765	0.38267	0	1.02032
2007	901	0.65678	0.39415	0	1.05093
2008	901	0.67648	0.40598	0	1.08246
2009	901	0.69677	0.41816	0	1.11493
2010	901	0.71768	0.43070	0	1.14838
2011	901	0.73921	0.44362	0	1.18283
2012	901	0.76138	0.45693	0	1.21831
2013	901	0.78422	0.47064	0	1.25486
2014	901	0.80775	0.48476	0	1.29251
2015	901	0.83198	0.49930	0	1.33128
2016	901	0.85694	0.51428	0	1.37122
2017	901	0.88265	0.52971	0	1.41236
2018	901	0.90913	0.54560	0	1.45473
2019	901	0.93640	0.56197	0	1.49837
2020	901	0.96450	0.57883	0	1.54332
2021	901	0.99343	0.59619	0	1.58962

Table 2

Cooling

1	2	3	4	4*3
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Totals	Ratio * Annual Cust. Chg.
2002	7.00	84	1	84
2003	7.21	87	1	87
2004	7.43	89	1	89
2005	7.65	92	1	92
2006	7.88	95	1	95
2007	8.11	97	1	97
2008	8.36	100	1	100
2009	8.61	103	1	103
2010	8.87	106	1	106
2011	9.13	110	1	110
2012	9.41	113	1	113
2013	9.69	116	1	116
2014	9.98	120	1	120
2015	10.28	123	1	123
2016	10.59	127	1	127
2017	10.91	131	1	131
2018	11.23	135	1	135
2019	11.57	139	1	139
2020	11.92	143	1	143
2021	12.27	147	1	147

Table 3

1	2	3	4	5	6	7	8	7*6*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
2002	50	104	366	86	4.68%	556	1	26
2003	49	101	352	83	4.68%	536	1	25
2004	47	99	338	80	4.68%	517	1	24
2005	46	96	325	78	4.68%	498	1	23
2006	45	94	312	75	4.68%	481	1	22
2007	44	91	300	72	4.68%	463	1	22
2008	43	89	288	70	4.68%	447	1	21
2009	42	86	277	68	4.68%	431	1	20
2010	40	84	266	65	4.68%	416	1	19
2011	39	82	256	63	4.68%	401	1	19
2012	38	80	246	61	4.68%	387	1	18
2013	37	78	236	59	4.68%	373	1	17
2014	36	76	227	57	4.68%	360	1	17
2015	36	74	218	55	4.68%	347	1	16
2016	35	72	210	53	4.68%	335	1	16
2017	34	70	202	51	4.68%	323	1	15
2018	33	68	194	49	4.68%	311	1	15
2019	32	66	186	48	4.68%	300	1	14
2020	31	65	179	46	4.68%	290	1	14
2021	30	63	172	45	4.68%	279	1	13

Table 4

Cooling

1	2	3	4	5	6	7	8	6*7*8+3*8
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer & Main O&M
2002	5	60	104	50	154	57	1	148
2003	5	62	101	49	150	57	1	147
2004	5	64	99	47	146	57	1	147
2005	5	66	96	46	142	57	1	147
2006	6	68	94	45	139	57	1	147
2007	6	70	91	44	135	57	1	147
2008	6	72	89	43	131	57	1	147
2009	6	74	86	42	128	57	1	147
2010	6	76	84	40	125	57	1	147
2011	7	78	82	39	121	57	1	148
2012	7	81	80	38	118	57	1	148
2013	7	83	78	37	115	57	1	149
2014	7	86	76	36	112	57	1	150
2015	7	88	74	36	109	57	1	150
2016	8	91	72	35	106	57	1	151
2017	8	93	70	34	104	57	1	153
2018	8	96	68	33	101	57	1	154
2019	8	99	66	32	98	57	1	155
2020	9	102	65	31	96	57	1	157
2021	9	105	63	30	93	57	1	158

Table 5

Cooling

1	2	3	4	5	6	7	3*5*7+4*5+2*6
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
2000	901	112	789	0.0000	0.00000	1.00	0
2001	901	112	789	0.0000	0.00000	1.00	0
2002	901	112	789	0.0000	0.00000	1.00	0
2003	901	112	789	0.0000	0.00000	1.00	0
2004	901	112	789	0.0000	0.00000	1.00	0
2005	901	112	789	0.0000	0.00000	1.00	0
2006	901	112	789	0.0000	0.00000	1.00	0
2007	901	112	789	0.0000	0.00000	1.00	0
2008	901	112	789	0.0000	0.00000	1.00	0
2009	901	112	789	0.0000	0.00000	1.00	0
2010	901	112	789	0.0000	0.00000	1.00	0
2011	901	112	789	0.0000	0.00000	1.00	0
2012	901	112	789	0.0000	0.00000	1.00	0
2013	901	112	789	0.0000	0.00000	1.00	0
2014	901	112	789	0.0000	0.00000	1.00	0
2015	901	112	789	0.0000	0.00000	1.00	0
2016	901	112	789	0.0000	0.00000	1.00	0
2017	901	112	789	0.0000	0.00000	1.00	0
2018	901	112	789	0.0000	0.00000	1.00	0
2019	901	112	789	0.0000	0.00000	1.00	0

Cooling

Participants Cost Effectiveness Test Data

All Costs in 2002

Analysis Start Year: 2002

Number of Years: 20

Gas Program: Natural Gas Space
Conditioning for Residential Homes

Gas Rate Number

Electric Rate Number

Gas Measure: Robur/Equivalent Unit

Alternate Option: 10 SEER Heat Pump
Alt FuelType: Electric

Allowance: \$1,200

Gas Utility: Florida Public Utilities Company

Electric Utility: New Smyrna Beach Utility Commission

I. Installed Cost Data

	\$
1. Equipment	\$4,467
2. Installation	3,200
Total Cust. Cost	<u>\$7,667</u>
3. Utility Rebate	\$1,200
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	112	579	691
3. Seasonal Rate	0	210	210
Total	<u>112</u>	<u>789</u>	<u>901</u>

4. Electric Consumption in KWH	0
5. O&M (excluding energy)	\$133

Gas Rates	Rate
6. Base, Winter	\$0.56654
7. Base, Summer	\$0.56654
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%

13. Customer Chg	\$7.00
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14. Ratio of Therms Consumed to Total	100.00%
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15. Average Life	20
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III. Common Gas & Electric Data

1. Discount Rate	7.96%
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IV. Installed Cost Data

	\$
1. Equipment	\$2,087
2. Installation	1,352
Total Cust. Cost	<u>\$3,439</u>
3. Utility Allowance	\$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	14,912	14,912
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	0	0

	Winter	Summer
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5. Diversified KW	
6. Billing KW	
7. O&M (excluding energ	\$18
8. Monthly Utility Incentive	\$0
9. Average Life in Yrs	12
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	\$0.0773
12. Electric Rate per KW, Winter	\$0.0000
13. Electric Rate per KW, Summer	\$0.0000
14. Electric Taxes & Fees	16.00%
15. Customer Chg	\$5.65

VI. Therms Displaced

1. Energy Factor	1.00
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Therms Displaced	Winter	Summer
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2. Standard Rate		
Total	<u>0.0</u>	<u>0.0</u>

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M	Gas Appliance O&M	Gas Customer Charge Table 3	Gas Rebate	Alternate Appliance Rebate	Total Benefits 2+3-4+5 -6-7+8-9	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	\$1,337	\$0	\$339	\$18	\$133	\$97	\$1,200	\$0	\$1,986	\$3,439	\$7,667	\$4,228
2003	\$1,377	\$0	\$349	\$19	\$137	\$100	0	0	\$809	0	0	0
2004	\$1,419	\$0	\$360	\$19	\$141	\$103	0	0	\$833	0	0	0
2005	\$1,461	\$0	\$371	\$20	\$145	\$106	0	0	\$858	0	0	0
2006	\$1,505	\$0	\$382	\$20	\$150	\$110	0	0	\$884	0	0	0
2007	\$1,550	\$0	\$393	\$21	\$154	\$113	0	0	\$911	0	0	0
2008	\$1,597	\$0	\$405	\$21	\$159	\$116	0	0	\$938	0	0	0
2009	\$1,645	\$0	\$417	\$22	\$164	\$120	0	0	\$966	0	0	0
2010	\$1,694	\$0	\$430	\$23	\$168	\$123	0	0	\$995	0	0	0
2011	\$1,745	\$0	\$443	\$23	\$174	\$127	0	0	\$1,025	0	0	0
2012	\$1,797	\$0	\$456	\$24	\$179	\$131	0	0	\$1,056	0	0	0
2013	\$1,851	\$0	\$470	\$25	\$184	\$135	0	0	\$1,087	0	0	0
2014	\$1,906	\$0	\$484	\$26	\$190	\$139	0	0	\$1,120	0	0	0
2015	\$1,964	\$0	\$498	\$26	\$195	\$143	0	0	\$1,154	0	0	0
2016	\$2,023	\$0	\$513	\$27	\$201	\$147	0	0	\$1,188	0	0	0
2017	\$2,083	\$0	\$528	\$28	\$207	\$152	0	0	\$1,224	0	0	0
2018	\$2,146	\$0	\$544	\$29	\$213	\$156	0	0	\$1,261	0	0	0
2019	\$2,210	\$0	\$561	\$30	\$220	\$161	0	0	\$1,298	0	0	0
2020	\$2,276	\$0	\$577	\$31	\$226	\$166	0	0	\$1,337	0	0	0
2021	\$2,345	\$0	\$595	\$32	\$233	\$171	0	0	\$1,377	0	0	0

Present Value
of Benefits

\$10,766

Present Value
of Costs

\$3,916

Benefit/Cost Ratio	2.75
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TABLE 1 Cooling

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
2002	\$0.0773	14,912	16.00%	\$1,337
2003	\$0.0796	14,912	16.00%	\$1,377
2004	\$0.0820	14,912	16.00%	\$1,419
2005	\$0.0845	14,912	16.00%	\$1,461
2006	\$0.0870	14,912	16.00%	\$1,505
2007	\$0.0896	14,912	16.00%	\$1,550
2008	\$0.0923	14,912	16.00%	\$1,597
2009	\$0.0951	14,912	16.00%	\$1,645
2010	\$0.0979	14,912	16.00%	\$1,694
2011	\$0.1009	14,912	16.00%	\$1,745
2012	\$0.1039	14,912	16.00%	\$1,797
2013	\$0.1070	14,912	16.00%	\$1,851
2014	\$0.1102	14,912	16.00%	\$1,906
2015	\$0.1135	14,912	16.00%	\$1,964
2016	\$0.1169	14,912	16.00%	\$2,023
2017	\$0.1204	14,912	16.00%	\$2,083
2018	\$0.1240	14,912	16.00%	\$2,146
2019	\$0.1278	14,912	16.00%	\$2,210
2020	\$0.1316	14,912	16.00%	\$2,276
2021	\$0.1355	14,912	16.00%	\$2,345

TABLE 2

Cooling

1	2	3	4	5	6	7	8	9	10	(3*2+9*10+8)*4
Year	Therm Cost	Load Enh. Therms	Tax Fees	Winter Therms	1st 30 Therms/mos	Therm Cost	Non-Enh Cost	Electric KWH	\$ per KWH	Gas Cost
2002	\$0.3400	579	16.00%	112	0	0.90654	102	0	0.0773	\$339
2003	\$0.3502	579	16.00%	112	0	0.93374	105	0	0.0796	\$349
2004	\$0.3607	579	16.00%	112	0	0.96175	108	0	0.0820	\$360
2005	\$0.3715	579	16.00%	112	0	0.99060	111	0	0.0845	\$371
2006	\$0.3827	579	16.00%	112	0	1.02032	114	0	0.0870	\$382
2007	\$0.3942	579	16.00%	112	0	1.05093	118	0	0.0896	\$393
2008	\$0.4060	579	16.00%	112	0	1.08246	121	0	0.0923	\$405
2009	\$0.4182	579	16.00%	112	0	1.11493	125	0	0.0951	\$417
2010	\$0.4307	579	16.00%	112	0	1.14838	129	0	0.0979	\$430
2011	\$0.4436	579	16.00%	112	0	1.18283	132	0	0.1009	\$443
2012	\$0.4569	579	16.00%	112	0	1.21831	136	0	0.1039	\$456
2013	\$0.4706	579	16.00%	112	0	1.25486	141	0	0.1070	\$470
2014	\$0.4848	579	16.00%	112	0	1.29251	145	0	0.1102	\$484
2015	\$0.4993	579	16.00%	112	0	1.33128	149	0	0.1135	\$498
2016	\$0.5143	579	16.00%	112	0	1.37122	154	0	0.1169	\$513
2017	\$0.5297	579	16.00%	112	0	1.41236	158	0	0.1204	\$528
2018	\$0.5456	579	16.00%	112	0	1.45473	163	0	0.1240	\$544
2019	\$0.5620	579	16.00%	112	0	1.49837	168	0	0.1278	\$561
2020	\$0.5788	579	16.00%	112	0	1.54332	173	0	0.1316	\$577
2021	\$0.5962	579	16.00%	112	0	1.58962	178	0	0.1355	\$595

TABLE 3

Cooling

1	2	3	4	5	6	3*6+16.0%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Cooling Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
2002	\$7.00	\$84.00	789	901	100.00%	\$97
2003	\$7.21	\$86.52	789	901	100.00%	\$100
2004	\$7.43	\$89.12	789	901	100.00%	\$103
2005	\$7.65	\$91.79	789	901	100.00%	\$106
2006	\$7.88	\$94.54	789	901	100.00%	\$110
2007	\$8.11	\$97.38	789	901	100.00%	\$113
2008	\$8.36	\$100.30	789	901	100.00%	\$116
2009	\$8.61	\$103.31	789	901	100.00%	\$120
2010	\$8.87	\$106.41	789	901	100.00%	\$123
2011	\$9.13	\$109.60	789	901	100.00%	\$127
2012	\$9.41	\$112.89	789	901	100.00%	\$131
2013	\$9.69	\$116.28	789	901	100.00%	\$135
2014	\$9.98	\$119.76	789	901	100.00%	\$139
2015	\$10.28	\$123.36	789	901	100.00%	\$143
2016	\$10.59	\$127.06	789	901	100.00%	\$147
2017	\$10.91	\$130.87	789	901	100.00%	\$152
2018	\$11.23	\$134.80	789	901	100.00%	\$156
2019	\$11.57	\$138.84	789	901	100.00%	\$161
2020	\$11.92	\$143.00	789	901	100.00%	\$166
2021	\$12.27	\$147.29	789	901	100.00%	\$171

DOCKET NO. 020004-GU
EXHIBIT E
PAGE 1 of 7

**FLORIDA PUBLIC UTILITIES COMPANY
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios**

Natural Gas Space Conditioning

Installed Appliances	Incentive Amount (\$)	Participants B/C Ratio	Rim B/C Ratio
Engine Dr. Chiller	50/ton	1.20	34.79

Rate Impact Measure Test Data

DOCKET NO. 020004-GU
EXHIBIT E
PAGE 2 of 7

All Costs in 2002 dollars. Number of Years: 20

Gas Program: Natural Gas Space Conditioning
Analysis Start Year: 2002
Gas Rate Number
Electric Rate Number

Gas Measure:	Engine Driven Chiller 500 Ton	Alternate Option:	Electric Driven Chiller
		Alt FuelType:	Electric
Allowance:	\$50/TON		
Gas Utility:	Florida Public Utilities Company	Electric Utility:	Utilities Commission of NSB

	\$
1. Avoided Meter Removal Cost	0
2. Avoided Cut & Cap Cost	0
Total Costs	0

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	62850	62850	125700
3. Seasonal Rate			0
Total	62850	62850	125700

Gas Rates	Rate
6. Base, Winter	0.23514
7. Base, Summer	0.23514
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%

13. Customer Chg 12

14. Ratio of Therms Consumed to Total 1

15. Average Life 20

III. Common Gas & Electric Data

1. Discount Rate 7.96%

IV. New Customer Installation Costs

	\$
1. Supply Main	50
2. Development Main	104
3. Service	366
4. Meter	86
Total Cust. Cost	606

5. Utility Allowance	25000
6. Program Cost	0
7. New Customer Admin. Cost \$/month	5
8. Main O&M (Percent)	57

V. Gas Supply Cost

1. Load Profile Type	Gas Supply Cost \$/Therm
2. Commodity (Annual)	0.0000
3. Winter Multiplier	1.00
4. Summer Multiplier	1
5. Transportation, Capacity, Peaking and Balancing Co	0.00000

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	6.1	
2. Annual Gas Therms	0	0

VII. Therms Displaced

1. Energy Factor	1
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Therms Displaced	Winter	Summer	Total
2. Standard Rate	0	0	0
Total	0	0	0

VIII. Therms Per Hour @ Utility Receipt Point

Therms per Hour	Winter	Summer	Total
1. Consumed			
2. Consumed New			

Rate Impact Measure Test Data

EXHIBIT E

PAGE 3 of 7

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Facilities O&M Table 4	Gas Supply Cost Table 5	Program & Allowance Cost	Total Columns 6 thru 9
1	2	3	4	5	6	7	8	9
\$	\$	\$	\$	\$	\$	\$	\$	\$
2000	72295	144	72439	212	63	0	25000	25275
2001	74464	144	74608	205	65	0		270
2002	76698	144	76842	198	67	0		264
2003	78999	144	79143	191	68	0		259
2004	81369	144	81513	184	70	0		255
2005	83810	144	83954	178	72	0		250
2006	86324	144	86468	172	74	0		246
2007	88914	144	89058	166	76	0		242
2008	91581	144	91725	160	79	0		239
2009	94329	144	94473	155	81	0		235
2010	97159	144	97303	149	83	0		232
2011	100073	144	100217	144	85	0		230
2012	103076	144	103220	139	88	0		227
2013	106168	144	106312	134	90	0		225
2014	109353	144	109497	130	93	0		223
2015	112633	144	112777	125	96	0		221
2016	116012	144	116156	121	98	0		219
2017	119493	144	119637	117	101	0		218
2018	123078	144	123222	113	104	0		217
2019	126770	144	126914	109	107	0		216

Present Value \$889,978
of Benefits

Present Value \$25,580
of Costs

Benefit/Cost Ratio	34.79
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Table 1

1	2	3	4
Year	Therms	Fuel Rate	Total Rate
2002	125,700	0.5751	72,295
2003	125,700	0.5924	74,484
2004	125,700	0.6102	76,698
2005	125,700	0.6285	78,999
2006	125,700	0.6473	81,389
2007	125,700	0.6667	83,810
2008	125,700	0.6867	86,324
2009	125,700	0.7073	88,914
2010	125,700	0.7286	91,581
2011	125,700	0.7504	94,329
2012	125,700	0.7729	97,159
2013	125,700	0.7961	100,073
2014	125,700	0.8200	103,076
2015	125,700	0.8446	106,168
2016	125,700	0.8700	109,353
2017	125,700	0.8960	112,633
2018	125,700	0.9229	116,012
2019	125,700	0.9506	119,493
2020	125,700	0.9791	123,078
2021	125,700	1.0085	126,770

Table 4

1	2	3	4	5	6	7	8	6"7"8+3"8
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
2002	5	60	104	50	154	57	1	63
2003	5	62	101	49	150	57	1	65
2004	5	64	99	47	146	57	1	67
2005	5	66	96	46	142	57	1	68
2006	6	68	94	45	139	57	1	70
2007	6	70	91	44	135	57	1	72
2008	6	72	89	43	131	57	1	74
2009	6	74	86	42	128	57	1	76
2010	6	76	84	40	125	57	1	79
2011	7	78	82	39	121	57	1	81
2012	7	81	80	38	118	57	1	83
2013	7	83	78	37	115	57	1	85
2014	7	86	76	36	112	57	1	88
2015	7	88	74	36	109	57	1	90
2016	8	91	72	35	106	57	1	93
2017	8	93	70	34	104	57	1	96
2018	8	96	68	33	101	57	1	98
2019	8	99	66	32	98	57	1	101
2020	9	102	65	31	96	57	1	104
2021	9	105	63	30	93	57	1	107

Table 2

Cooling

1	2	3	4	4*3
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
2002	12	144	100.00%	144
2003	12	144	100.00%	144
2004	12	144	100.00%	144
2005	12	144	100.00%	144
2006	12	144	100.00%	144
2007	12	144	100.00%	144
2008	12	144	100.00%	144
2009	12	144	100.00%	144
2010	12	144	100.00%	144
2011	12	144	100.00%	144
2012	12	144	100.00%	144
2013	12	144	100.00%	144
2014	12	144	100.00%	144
2015	12	144	100.00%	144
2016	12	144	100.00%	144
2017	12	144	100.00%	144
2018	12	144	100.00%	144
2019	12	144	100.00%	144
2020	12	144	100.00%	144
2021	12	144	100.00%	144

Table 5

Cooling

1	2	3	4	5	6	7	32
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal Cost	Winter Multiplier	Gas Supply Cost
2002	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2003	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2004	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2005	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2006	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2007	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2008	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2009	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2010	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2011	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2012	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2013	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2014	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2015	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2016	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2017	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2018	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2019	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2020	125,700	62,850	62,850	0.0000	0.0000	1.00	0
2021	125,700	62,850	62,850	0.0000	0.0000	1.00	0

Table 3

Cooling

1	2	3	4	5	6	7	8	7*6*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
2002	50	104	366	4117	4.68%	4,533	1	212
2003	49	101	352	3976	4.68%	4,376	1	205
2004	47	99	338	3840	4.68%	4,225	1	198
2005	46	96	325	3708	4.68%	4,079	1	191
2006	45	94	312	3581	4.68%	3,938	1	184
2007	44	91	300	3459	4.68%	3,802	1	178
2008	43	89	288	3340	4.68%	3,671	1	172
2009	42	86	277	3226	4.68%	3,544	1	166
2010	40	84	266	3115	4.68%	3,422	1	160
2011	39	82	256	3009	4.68%	3,304	1	155
2012	38	80	246	2906	4.68%	3,190	1	149
2013	37	78	236	2806	4.68%	3,080	1	144
2014	36	76	227	2710	4.68%	2,974	1	139
2015	36	74	218	2617	4.68%	2,871	1	134
2016	35	72	210	2528	4.68%	2,772	1	130
2017	34	70	202	2441	4.68%	2,676	1	125
2018	33	68	194	2357	4.68%	2,584	1	121
2019	32	66	186	2277	4.68%	2,495	1	117
2020	31	65	179	2199	4.68%	2,409	1	113
2021	30	63	172	2124	4.68%	2,326	1	109

Participants Cost Effectiveness Test Data

DOCKET No. 020004-GU

EXHIBIT E

Page 5 of 7

All Costs in 2002 dollars. Analysis Start Year: 2002 Number of Years: 20

Gas Program: Natural Gas Space
Conditioning

Gas Rate Number

Electric Rate Number

Gas Measure: 500 Ton Engine Driven Chiller

Alternate Option: Electric Driven Chiller

Alt FuelType: Electric

Allowance: \$50/ton

Gas Utility: Florida Public Utilities Company

Electric Utility: Utilities Commission of NSB

I. Installed Cost Data

	\$
1. Equipment	\$250,000
2. Installation	40,000
Total Cust. Cost	\$290,000
3. Utility Rebate	\$25,000
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumec	Winter	Summer	Total
2. Standard Rate	62,850	62,850	125,700
3. Seasonal Rate			
Total	62,850	62,850	125,700

4. Oil Consumption	3,000
5. O&M (excluding energy)	\$5,550

Gas Rates	Rate
6. Base, Winter	\$0.23514
7. Base, Summer	\$0.23514
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.34000
11. PGA, Summer	0.34000
12. Taxes & Fees	16.00%
13. Customer Chg	\$12.00

14. Ratio of Therms Consumed to Total	100.00%
---------------------------------------	---------

15. Average Life	20
------------------	----

III. Common Gas & Electric Data

1. Discount Rate	7.96%
------------------	-------

IV. Installed Cost Data

	\$
1. Equipment	\$175,000
2. Installation	35,363
Total Cust. Cost	\$210,363
3. Utility Allowance	\$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	
2. Annual KWH	1,050,000	1,050,000
3. Annual Oil Gallon:	0	0
4. Annual Gas Therr	0	0

	Winter	Summer
5. Diversified KW	1,050	1,050
6. Billing KW	2,100	2,100

7. O&M (excluding energy)	\$1,050
8. Monthly Utility Incentive	\$0
9. Average Life in Yrs	20
10. Existing Remaining Life in Yrs	0

11. Electric Rate per KWH	\$0.0539
12. Electric Rate per KW, Winter	\$5.5000
13. Electric Rate per KW, Summer	\$5.5000
14. Electric Taxes & Fees	16.00%
15. Customer Chg	\$33.50

VI. Therms Displaced

1. Energy Factor	1.00
------------------	------

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

DOCKET NO. 020004-GU

EXHIBIT E

PAGE 6 of 7

Year	Electric KWH Cost Table 1	Motor Oil 3	Consumed -Conserved -Displaced Gas Therms Table 2	Alternate Appliance O&M 5	Gas Appliance O&M 6	Gas Customer Charge Table 3	Gas Rebate 8	Alternate Appliance Rebate 9	Total Benefits 2-3-4+5 -6-7+8-9 10	Alternate Appliance Installed Cost 11	Gas Appliance Installed Cost 12	Total Cost 12-11 13
1	2	3	4	5	6	7	8	9	10	11	12	13
2002	\$88,787	\$3,000	\$83,862	\$1,050	\$5,550	\$144	\$25,000	\$0	\$20,468	\$210,363	\$290,000	\$79,637
2003	\$90,757	\$3,000	\$86,378	\$1,082	\$5,717	\$148	0	0	(\$5,271)	\$0	0	0
2004	\$92,787	\$3,000	\$88,970	\$1,114	\$5,888	\$153	0	0	(\$6,032)	\$0	0	0
2005	\$94,878	\$3,000	\$91,639	\$1,147	\$6,065	\$157	0	0	(\$6,816)	\$0	0	0
2006	\$97,031	\$3,000	\$94,388	\$1,182	\$6,247	\$162	0	0	(\$7,623)	\$0	0	0
2007	\$99,249	\$3,000	\$97,219	\$1,217	\$6,434	\$167	0	0	(\$8,455)	\$0	0	0
2008	\$101,533	\$3,000	\$100,136	\$1,254	\$6,627	\$172	0	0	(\$9,311)	\$0	0	0
2009	\$103,886	\$3,000	\$103,140	\$1,291	\$6,826	\$177	0	0	(\$10,194)	\$0	0	0
2010	\$106,310	\$3,000	\$106,234	\$1,330	\$7,031	\$182	0	0	(\$11,103)	\$0	0	0
2011	\$108,806	\$3,000	\$109,421	\$1,370	\$7,241	\$188	0	0	(\$12,039)	\$0	0	0
2012	\$111,377	\$3,000	\$112,704	\$1,411	\$7,459	\$194	0	0	(\$13,003)	\$0	0	0
2013	\$114,026	\$3,000	\$116,085	\$1,453	\$7,682	\$199	0	0	(\$13,996)	\$0	0	0
2014	\$116,754	\$3,000	\$119,568	\$1,497	\$7,913	\$205	0	0	(\$15,019)	\$0	0	0
2015	\$119,563	\$3,000	\$123,155	\$1,542	\$8,150	\$211	0	0	(\$16,072)	\$0	0	0
2016	\$122,457	\$3,000	\$126,849	\$1,588	\$8,395	\$218	0	0	(\$17,157)	\$0	0	0
2017	\$125,438	\$3,000	\$130,655	\$1,636	\$8,647	\$224	0	0	(\$18,275)	\$0	0	0
2018	\$128,508	\$3,000	\$134,574	\$1,685	\$8,906	\$231	0	0	(\$19,426)	\$0	0	0
2019	\$131,670	\$3,000	\$138,612	\$1,735	\$9,173	\$238	0	0	(\$20,612)	\$0	0	0
2020	\$134,927	\$3,000	\$142,770	\$1,788	\$9,449	\$245	0	0	(\$21,834)	\$0	0	0
2021	\$138,282	\$3,000	\$147,053	\$1,841	\$9,732	\$253	0	0	(\$23,092)	\$0	0	0

Present Value
of Benefits

\$88,148

Present Value
of Costs

\$73,297

Benefit/Cost Ratio	1.20
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1	2	3	4	3*2*4+6	6
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost	Demand * Billing KWH
2002	\$0.0539	1,050,000	16.00%	\$88,787	23100
2003	\$0.0555	1,050,000	16.00%	\$90,757	23100
2004	\$0.0572	1,050,000	16.00%	\$92,787	23100
2005	\$0.0589	1,050,000	16.00%	\$94,878	23100
2006	\$0.0607	1,050,000	16.00%	\$97,031	23100
2007	\$0.0625	1,050,000	16.00%	\$99,249	23100
2008	\$0.0644	1,050,000	16.00%	\$101,533	23100
2009	\$0.0663	1,050,000	16.00%	\$103,886	23100
2010	\$0.0683	1,050,000	16.00%	\$106,310	23100
2011	\$0.0704	1,050,000	16.00%	\$108,806	23100
2012	\$0.0725	1,050,000	16.00%	\$111,377	23100
2013	\$0.0747	1,050,000	16.00%	\$114,026	23100
2014	\$0.0769	1,050,000	16.00%	\$116,754	23100
2015	\$0.0792	1,050,000	16.00%	\$119,563	23100
2016	\$0.0816	1,050,000	16.00%	\$122,457	23100
2017	\$0.0840	1,050,000	16.00%	\$125,438	23100
2018	\$0.0865	1,050,000	16.00%	\$128,508	23100
2019	\$0.0891	1,050,000	16.00%	\$131,670	23100
2020	\$0.0918	1,050,000	16.00%	\$134,927	23100
2021	\$0.0946	1,050,000	16.00%	\$138,282	23100

TABLE 2 Cooling

1	2	3	4	(3*2+5*6)*4	\$6
Year	Therm Cost	# Therms	Tax Fees	Gas Cost	Oil Consumption
2002	\$0.5751	125,700	16.00%	\$83,862	\$3,000
2003	\$0.5924	125,700	16.00%	\$86,378	\$3,000
2004	\$0.6102	125,700	16.00%	\$88,970	\$3,000
2005	\$0.6285	125,700	16.00%	\$91,639	\$3,000
2006	\$0.6473	125,700	16.00%	\$94,388	\$3,000
2007	\$0.6667	125,700	16.00%	\$97,219	\$3,000
2008	\$0.6867	125,700	16.00%	\$100,136	\$3,000
2009	\$0.7073	125,700	16.00%	\$103,140	\$3,000
2010	\$0.7286	125,700	16.00%	\$106,234	\$3,000
2011	\$0.7504	125,700	16.00%	\$109,421	\$3,000
2012	\$0.7729	125,700	16.00%	\$112,704	\$3,000
2013	\$0.7961	125,700	16.00%	\$116,085	\$3,000
2014	\$0.8200	125,700	16.00%	\$119,568	\$3,000
2015	\$0.8446	125,700	16.00%	\$123,155	\$3,000
2016	\$0.8700	125,700	16.00%	\$126,849	\$3,000
2017	\$0.8960	125,700	16.00%	\$130,655	\$3,000
2018	\$0.9229	125,700	16.00%	\$134,574	\$3,000
2019	\$0.9506	125,700	16.00%	\$138,612	\$3,000
2020	\$0.9791	125,700	16.00%	\$142,770	\$3,000
2021	\$1.0085	125,700	16.00%	\$147,053	\$3,000

TABLE 3

1	2	3
Year	Monthly Cust. Chrg	Annual Cust. Chrg
2002	\$12.00	\$144.00
2003	\$12.00	\$144.00
2004	\$12.00	\$144.00
2005	\$12.00	\$144.00
2006	\$12.00	\$144.00
2007	\$12.00	\$144.00
2008	\$12.00	\$144.00
2009	\$12.00	\$144.00
2010	\$12.00	\$144.00
2011	\$12.00	\$144.00
2012	\$12.00	\$144.00
2013	\$12.00	\$144.00
2014	\$12.00	\$144.00
2015	\$12.00	\$144.00
2016	\$12.00	\$144.00
2017	\$12.00	\$144.00
2018	\$12.00	\$144.00
2019	\$12.00	\$144.00
2020	\$12.00	\$144.00
2021	\$12.00	\$144.00

Revised 3/18/2002

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
ENERGY CONSERVATION ADJUSTMENT
SUMMARY OF COST RECOVERY CLAUSE CALCULATION
JANUARY 2002 THROUGH DECEMBER 2002
REVISED JUNE 2002 THROUGH DECEMBER 2002

1. TOTAL INCREMENTAL COSTS (SCHEDULE C-2, PAGE 1)	1,919,500
2. TRUE-UP	159,786
3. TOTAL (LINE 1 AND LINE 2)	2,079,286

RATE SCHEDULE	BILLS	THERMS	CUSTOMER CHARGE	NON-GAS ENERGY CHARGE	TOTAL CUST. & ENGY CHG REVENUE	ECCR REVENUES	ECCR AS % OF TOTAL REVENUES	DOLLARS THERMS	TAX FACTOR	CONSERV FACTOR
RESIDENTIAL	480,384	10,933,190	3,814,360	3,759,785	7,574,145	993,181	13.11277%	0.09084	1.00503	0.09129
COMMERCIAL SMALL (General Service & GS Transportation)	39,148	13,138,160	579,846	2,843,514	3,423,360	448,897	13.11277%	0.03417	1.00503	0.03433
COMM. LRG VOLUME (Large Vol & LV Transportation < 50,000 units)	11,902	27,942,720	535,590	4,323,856	4,859,446	637,208	13.11277%	0.02280	1.00503	0.02292
LARGE VOL TRANSPORT. (LG VOL TRANS. > 50,000 units)	0	0	0	0	0	0	13.11277%	0.02280	1.00503	0.02292
TOTAL	531,434	52,014,070	4,929,796	10,927,155	15,856,951	2,079,286				

EXHIBIT "C"

EXHIBIT NO. _____
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FLORIDA PUBLIC UTILITIES COMPANY
(RLS-1)
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Revised 3/18/2002

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
ENERGY CONSERVATION ADJUSTMENT
SUMMARY OF COST RECOVERY CLAUSE CALCULATION
JANUARY 2002 THROUGH DECEMBER 2002
REVISED JUNE 2002 THROUGH DECEMBER 2002

1. TOTAL INCREMENTAL COSTS (SCHEDULE C-2, PAGE 1)	59,500
2. TRUE-UP	
3. TOTAL (LINE 1 AND LINE 2)	59,500

RATE SCHEDULE	BILLS	THERMS	CUSTOMER CHARGE	NON-GAS ENERGY CHARGE	TOTAL CUST. & ENGY CHG REVENUE	ECCR REVENUES	ECCR AS % OF TOTAL REVENUES	DOLLARS THERMS	TAX FACTOR	CONSERV FACTOR
RESIDENTIAL	28,712	414,200	200,984	234,661	435,645	38,914	8.93255%	N/A	N/A	N/A
COMMERCIAL SMALL (General Service & GS Transportation)	2,458	854,650	29,496	200,962	230,458	20,586	8.93255%	N/A	N/A	N/A
COMM. LRG VOLUME (Large Vol & LV Transportation < 50,000 units)					0	0	8.93255%			
LARGE VOL TRANSPORT. (LG VOL TRANS. > 50,000 units)	0	0	0	0	0	0	8.93255%			
TOTAL	31,170	1,268,850	230,480	435,623	666,103	59,500				

Originally filed

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
ENERGY CONSERVATION ADJUSTMENT
SUMMARY OF COST RECOVERY CLAUSE CALCULATION
JANUARY 2002 THROUGH DECEMBER 2002

1. TOTAL INCREMENTAL COSTS (SCHEDULE C-2, PAGE 1)	1,860,000
2. TRUE-UP (SCHEDULE C-3, PAGE 4, LINE 11)	159,786
3. TOTAL (LINE 1 AND LINE 2)	2,019,786

RATE SCHEDULE	BILLS	THERMS	CUSTOMER CHARGE	NON-GAS ENERGY CHARGE	TOTAL CUST. & ENGY CHG REVENUE	ECCR REVENUES	ECCR AS % OF TOTAL REVENUES	DOLLARS THERMS	TAX FACTOR	CONSERV FACTOR
RESIDENTIAL	451,672	10,518,990	3,613,376	3,525,124	7,138,500	949,140	13.29607%	0.09023	1.00503	0.09068
COMMERCIAL SMALL (General Service & GS Transportation)	36,690	12,283,510	550,350	2,642,552	3,192,902	424,531	13.29607%	0.03456	1.00503	0.03473
COMM. LRG VOLUME (Large Vol & LV Transportation < 50,000 units)	11,902	27,942,720	535,590	4,323,856	4,859,446	646,115	13.29607%	0.02312	1.00503	0.02324
LARGE VOL TRANSPORT. (LG VOL TRANS. > 50,000 units)	0	0	0	0	0	0	13.29607%	0.02312	1.00503	0.02324
TOTAL	500,264	50,745,220	4,699,316	10,491,532	15,190,848	2,019,786				

ESTIMATED CONSERVATION PROGRAM COSTS PER PROGRAM
JANUARY 2002 THROUGH DECEMBER 2002
REVISED JUNE 2002 THROUGH DECEMBER 2002

EXPENSES:	JAN 2002	FEB 2002	MAR 2002	APR 2002	MAY 2002	JUN 2002	JUL 2002	AUG 2002	SEP 2002	OCT 2002	NOV 2002	DEC 2002	TOTAL
1 Full House Res. New Construction	64,400	64,400	64,400	64,400	64,400	67,700	67,700	67,700	67,700	67,700	67,700	67,700	795,900
2 Resid. Appliance Replacement	10,200	10,200	10,200	10,200	10,200	10,700	10,700	10,700	10,700	10,700	10,700	10,700	125,900
3 Conservation Education	3,375	3,375	3,375	3,375	3,375	3,575	3,575	3,575	3,575	3,575	3,575	3,575	41,900
4 Space Conditioning	2,300	2,300	2,300	2,300	2,300	2,400	2,400	2,400	2,400	2,400	2,400	2,400	28,300
5 Residential Conservation Service	2,650	2,650	2,650	2,650	2,650	2,750	2,750	2,750	2,750	2,750	2,750	2,750	32,500
6 Residential Appliance Retention	36,150	36,150	36,150	36,150	36,150	38,150	38,150	38,150	38,150	38,150	38,150	38,150	447,800
7 Commercial Conservation	2,700	2,700	2,700	2,700	2,700	2,900	2,900	2,900	2,900	2,900	2,900	2,900	33,800
8 Res. Service Reactivation	2,100	2,100	2,100	2,100	2,100	2,200	2,200	2,200	2,200	2,200	2,200	2,200	25,900
9 Common	31,125	31,125	31,125	31,125	31,125	33,125	33,125	33,125	33,125	33,125	33,125	33,125	387,500
TOTAL	155,000	155,000	155,000	155,000	155,000	163,500	163,500	163,500	163,500	163,500	163,500	163,500	1,919,500

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DOCKET NO. 020004-GU
FLORIDA PUBLIC UTILITIES COMPANY
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ESTIMATED CONSERVATION PROGRAM COSTS PER PROGRAM
JANUARY 2002 THROUGH DECEMBER 2002
REVISED JUNE 2002 THROUGH DECEMBER 2002

PROGRAM NAME	CAPITAL INVESTMENT	PAYROLL & BENEFITS	MATERIALS & SUPPLIES	ADVERTISING	INCENTIVES	OUTSIDE SERVICES	VEHICLE	OTHER	TOTAL
1 Full House Res. New Construction	0	44,000	27,400	60,000	643,700	10,600	6,500	3,700	795,900
2 Resid. Appliance Replacement	0	41,600	7,700	13,800	55,000	1,800	3,600	2,400	125,900
3 Conservation Education	0	10,000	16,000	9,600	0	2,400	1,500	2,400	41,900
4 Space Conditioning	0	8,700	2,400	2,400	6,000	5,200	2,400	1,200	28,300
5 Residential Conservation Service	0	6,000	6,000	11,300	0	3,800	3,600	1,800	32,500
6 Residential Appliance Retention	0	10,600	8,600	14,200	406,000	3,600	2,400	2,400	447,800
7 Commercial Conservation	0	8,400	3,600	10,500	0	6,300	3,600	1,400	33,800
8 Res. Service Reactivation	0	0	2,600	6,200	17,100	0	0	0	25,900
9 Common	0	50,000	20,000	265,300	0	13,800	19,000	19,400	387,500
	0	179,300	94,300	393,300	1,127,800	47,500	42,600	34,700	1,919,500

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DOCKET NO. 020004-GU
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PAGE 5 OF 14

**FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
PROGRAM DESCRIPTION AND SUMMARY**

**SCHEDULE C-5
PAGE 1 OF 9**

1. Full House Residential New Construction Program
2. Residential Appliance Replacement Program
3. Residential Appliance Retention Program
4. Residential Service Reactivation Program
5. Residential Conservation Service Program
6. Commercial Conservation Service Program
7. Conservation Education Program
8. Space Conditioning Program

EXHIBIT "D"

EXHIBIT NO. _____
DOCKET NO. 020004-GU
FLORIDA PUBLIC UTILITIES CO.
(RLS-1)
PAGE 6 OF 14

**FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
PAGE 2 OF 9**

PROGRAM TITLE:

Full House Residential New Construction Program

PROGRAM DESCRIPTION:

This program is designed to increase the overall energy efficiency in the residential single- and multi-family new construction market by promoting energy-efficient natural gas appliances. The program offers builders and developers incentives in the form of cash allowances to defray the additional costs associated with the installation of natural gas supply lines, house piping, venting and natural gas appliances.

PROGRAM ALLOWANCES:

Furnace or Hydro heater	\$300
Water Heater	\$300
Range	\$ 85
Dryer	\$ 85

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 925 single- and multi-family homes will be connected to its natural gas system.

PROGRAM FISCAL EXPENDITURES:

During the twelve-month period of June to December 2002, FPUC estimates expenses of \$795,900.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. From the inception of this program on September 1, 2000 through August 31, 2001, FPUC has connected 1,228 single- and multi-family homes to its natural gas system.

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FLORIDA PUBLIC UTILITIES CO.
(RLS-1)
PAGE 7 OF 14**

**FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
PAGE 3 OF 9**

PROGRAM TITLE:

Residential Appliance Replacement Program

PROGRAM DESCRIPTION:

This program is designed to encourage the replacement of inefficient non-natural gas residential appliances with energy-efficient natural gas appliances. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the installation of efficient natural gas appliances.

PROGRAM ALLOWANCES:

Furnace or Hydro heater	\$330
Water Heater	\$330
Range	\$ 50
Dryer	\$ 50

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 265 natural gas appliances will be connected (limited to furnaces or hydro heaters, water heaters, ranges and dryers) to its natural gas system.

PROGRAM EXPENDITURES:

During the twelve-month period of January to December 2002, FPUC estimates expenses of \$125,900.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. From the inception of the program through August 2001, FPUC has connected 243 appliances (only furnaces and hydro heaters, water heaters, ranges and dryers) to its natural gas system.

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DOCKET NO. 020004-GU
FLORIDA PUBLIC UTILITIES CO.
(RLS-1)
PAGE 8 OF 14**

**FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
PAGE 4 OF 9**

PROGRAM TITLE:

Residential Appliance Retention Program

PROGRAM DESCRIPTION:

This program is designed to promote the retention of energy-efficient appliances for current natural gas customers. The program offers allowances to customers to assist in defraying the cost of purchasing and installing more expensive energy-efficient appliances.

PROGRAM ALLOWANCES:

Water Heater \$350

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 1,000 water heaters will be connected to its system.

PROGRAM FISCAL EXPENDITURES:

During the twelve-month period of January to December 2002, FPUC estimates expenses of \$447,800.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. From the inception of this program through August 31, 2001, FPUC has retained 872 natural gas water heaters connected to its distribution system.

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**FLORIDA PUBLIC UTILITIES COMPANY
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PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
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PROGRAM TITLE:

Residential Service Reactivation Program

PROGRAM DESCRIPTION:

This program is designed to encourage the reactivation of existing residential service lines that are scheduled to be cut-off and capped. The program offers incentives in the form of cash allowances to residential consumers to assist in defraying the additional costs associated with the purchase and the installation of energy-efficient natural gas appliances.

PROGRAM ALLOWANCES:

Service Reactivation (the installation of a water heater is required) \$350

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 50 services will be reactivated with water heaters on its natural gas system.

PROGRAM FISCAL EXPENDITURES:

During the twelve-month period of January to December 2002, FPUC estimates expenses of \$25,900.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. From the inception of this program through August 31, 2001, FPUC has not reactivated any services with water heaters as a result of this program.

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PROGRAM DESCRIPTION AND SUMMARY**

**SCHEDULE C-5
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PROGRAM TITLE:

Residential Conservation Service Program

PROGRAM DESCRIPTION:

This program is designed to assist residential customers in conserving all forms of energy consumption. Certified company representatives or private contractors will conduct energy surveys. This service will be provided based on customer requests and scheduling availability.

PROGRAM ALLOWANCES:

Not applicable.

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 23 residential customers will participate in this program.

PROGRAM FISCAL EXPENDITURES:

During the twelve-month period of January to December 2002, FPUC estimates expenses of \$32,500.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. Since the inception of this program through August 31, 2001, only 6 residential customers have participated. Changes in FPUC's Marketing staff and the training of personnel have also affected the active marketing of this program to its customers.

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PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
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PROGRAM TITLE:

Commercial Conservation Service Program

PROGRAM DESCRIPTION:

This program is designed to assist commercial customers in conserving all forms of energy consumption. Certified company representatives or private contractors will conduct energy surveys. This service will be provided based on customer requests and scheduling availability.

PROGRAM ALLOWANCES:

Not applicable.

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 53 commercial customers will participate in this program.

PROGRAM FISCAL EXPENDITURES:

During the twelve-month period of January to December 2002, FPUC estimates expenses of \$33,800.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. From the inception of this program through August 31, 2001, 70 commercial customers have participated.

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PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
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PROGRAM TITLE:

Conservation Education Program

PROGRAM DESCRIPTION:

The purpose of this program is to teach adult and young people about conservation measures designed to reduce energy consumption and consequently reduce their utility bills.

PROGRAM ALLOWANCES:

Not applicable.

PROGRAM PROJECTONS:

For the seven-month period of January to December 2002, FPUC estimates that 28 adult and youth presentations with 840 participants will result from this program.

PROGRAM FISCAL EXPENDITURES:

During this twelve-month period of January to December 2002, FPUC estimates expenses of \$41,900.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. From the inception of this program through August 31, 2001, FPUC has given 35 adult and youth presentations.

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PROGRAM DESCRIPTION AND PROGRESS**

**SCHEDULE C-5
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PROGRAM TITLE:

Space Conditioning Program

PROGRAM DESCRIPTION:

This program is designed to convert on-main customers from electric space conditioning equipment to energy-efficient natural gas space conditioning equipment. The program provides an allowance to qualifying participants to compensate for higher initial costs of natural gas space conditioning equipment and the associated installation costs. This program also reduces summer as well as winter peak demand and contributes to the conservation of kwh/kwd consumption.

PROGRAM ALLOWANCES:

Residential	\$1200 (For Robur model or equivalent unit)
Non-Residential	\$ 50 per ton

PROGRAM PROJECTIONS:

For the twelve-month period of January to December 2002, FPUC estimates that 5 customer projects will utilize this program.

PROGRAM FISCAL EXPENDITURES:

During the twelve-month period of January to December 2002, FPUC estimates expenses of \$28,300.

PROGRAM PROGRESS SUMMARY:

FPSC approval of this program occurred on August 29, 2000. This program was implemented on September 1, 2000. From the inception of this program through August 31, 2001, FPUC has connected 5 space-conditioning projects to its natural gas system.

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