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March 25, 1998

HAND DELIVERY

Blanco Bayo
Division of Records & Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

980427-GU

RE: Notice of Filing Cost-Effectiveness Evaluation of Energy Conservation Programs by the Florida Division of Chesapeake Utilities Corporation and Request for Program Approval

Dear Ms. Bayo:

Enclosed on behalf of the Florida Division of Chesapeake Utilities Corporation are the original and 12 copies of a Notice of Filing Cost-Effectiveness Evaluation of Energy Conservation Programs by the Florida Division of Chesapeake Utilities Corporation and Request for Program Approval.

Please open a docket for consideration of this matter.

Please acknowledge receipt of the foregoing by stamping the enclosed extra copy of this letter and returning same to my attention. Thank you for your assistance.

Sincerely,

Wayne L. Schiefelbein

Wayne L. Schiefelbein

WLS/cas
Enclosures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Review to Determine Cost Effectiveness of Conservation Programs of Florida Division of Chesapeake Utilities Corporation	))))	DOCKET NO. Submitted for Filing March 25, 1998

NOTICE OF FILING COST-EFFECTIVENESS EVALUATION OF ENERGY CONSERVATION PROGRAMS BY THE FLORIDA DIVISION OF CHESAPEAKE UTILITIES CORPORATION AND REQUEST FOR PROGRAM APPROVAL

The Florida Division of Chesapeake Utilities Corporation ("the Florida Division" or "the Company"), hereby gives notice of filing its cost-effectiveness evaluation of Energy Conservation Programs in compliance and conformance with the requirements of Rule 25-17.009, Florida Administrative Code. The Florida Division requests continuation of its existing Conservation Education Program, and approval of its revised Residential Home Builder Program, Appliance Replacement Program and Natural Gas Space Conditioning Program, as well as its new Residential Propane Distribution Program, Water Heater Retention Program and Natural Gas Space Conditioning for Residential Homes Program.

1. The Company has completed its evaluation of Energy Conservation Programs using the methodologies prescribed by Rule 25-17.009 and the accompanying Florida Public Service Commission Gas DSM Cost Effectiveness Manual for Natural Gas Utility Demand Side Management Programs. All programs being submitted, as described herein, are cost effective as indicated, capable of being monitored, and will have an overall positive effect on energy conservation.

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

Program 1: Florida Division of Chesapeake Utilities Corporation
Residential Home Builder Program

3. The Residential Home Builder Program is designed to increase the overall energy efficiency in the residential new construction market by promoting energy efficient natural gas appliances in residences that would qualify for the Company's residential rates. The Residential Home Builder Program's purpose is to promote energy efficient natural gas by encouraging the selection of appliances most suitable in reducing the ultimate consumer's overall energy costs. Incentives are offered in the form of cash allowances on the installation of those chosen appliances. The program offers builders and developers incentives to assist in defraying the additional costs associated with the installation of piping and venting of natural gas appliances. The revised incentives offered under this program have been established at levels that conform to the Company's RIM and Participant Test analyses.

4. The residential construction market is very price competitive. The concerns of residential builders focus more on the reduction of construction costs than on energy conservation or the long-term effect on Florida ratepayers. Builders and developers are reluctant to incorporate natural gas appliances in their home construction plans due to higher installation costs of venting and piping and higher natural gas appliance costs. The cash allowances offered by the Company lowers the first cost, thus encouraging builders and developers to install natural gas appliances. Cost effectiveness data for the Residential Home Builder Program is attached hereto as Exhibit A. The level of incentives proposed under this program and the resulting Participants and Rim benefit/cost ratios are shown below.

	Incentives	Participants B/C Ratio	Rim B/C Ratio
Water Heater	$ 275.00	4.19	1.66
Furnace	$ 275.00	2.84	1.60
Clothes Dryer Outlet	$ 75.00	3.34	1.53
Range	$ 75.00	2.45	1.33

Program 2: Florida Division of Chesapeake Utilities Corporation Residential Appliance Replacement Program

5. The Residential Appliance Replacement Program supersedes the Company's Water Heater Replacement Program and Replacement of Electric Strip and Oil Heating Program. The Residential Appliance Replacement Program combines the two former programs and also allows incentives for the installation of an electronic ignition natural gas range and for the installation of a natural gas clothes dryer. Dealer incentives have been eliminated for installation of the water heater and furnace and there are no dealer rebates for the installation of a range or clothes dryer.

6. This program is designed to encourage the replacement of inefficient non-natural gas residential appliances with energy efficient natural gas appliances. Often residential consumers only consider the higher installation costs, and not the operating savings, associated with natural gas appliances and therefore do not convert to energy efficient natural gas appliances. Incentives are offered in the form of cash allowances on the installation of those chosen appliances. Incentives for natural gas ranges,

furnaces and clothes dryers are available only when there is an existing line present, or a natural gas water heater is installed at the same time as the range, furnace or clothes dryer. The incentives will help defray the additional costs associated with the installation of piping, venting and purchase of energy efficient natural gas appliances. Cost effectiveness data for the Residential Appliance Replacement Program is attached hereto as Exhibit B. The level of incentives proposed under this program and the resulting Participants and Rim benefit/cost ratios are shown below.

	Incentives	Participants B/C Ratio	Rim B/C Ratio
Water Heater	$ 330.00	4.79	1.64
Furnace	$ 330.00	2.73	1.59
Clothes Dryer	$ 50.00	3.17	1.68
Range	$ 50.00	2.30	1.48

Program 3: Florida Division of Chesapeake Utilities Corporation Residential Propane Distribution Program

7. The Residential Propane Distribution Program is designed to promote the use of "gas" within developments that are built beyond the economic extension of the Company's existing natural gas infrastructure. The existing Company Area Expansion Program is not typically effective for residential customers, who are unwilling to pay a large surcharge for up to ten (10) years. The concept of installing an underground propane system, which includes distribution mains, service laterals and meter sets that are capable of supplying either propane or natural gas, is a viable method of

encouraging installation of "gas" appliances in the residential subdivision at the time of construction This program is designed to provide Builders and Developers a cash incentive to encourage the installation of "gas" appliances in the newly constructed house. Initially the fuel source will be propane gas but as growth occurs between the existing natural gas infrastructure and the subdivision, the natural gas system will be extended and the houses within the underground propane distribution system will be converted to natural gas.

8. Prior to the conversion to natural gas, the infrastructure costs (distribution mains, service laterals, etc.) will not be included in the regulated rate base of the Company nor will the incentives be included in the Energy Conservation Program for recovery. Only at the time of conversion from propane to natural gas will the transfer of assets occur into the regulated rate base (net book value) and recovery of the incentive and administrative costs be sought.

9. This program is based on 20 years from the date of natural gas conversion. Cost effectiveness data for the Residential Propane Distribution Program is attached hereto as Exhibit C. The level of incentives proposed under this program and the resulting Participants and Rim benefit/cost ratios are shown below.

	Incentives	Participants B/C Ratio	Rim B/C Ratio
Water Heater	$ 275.00	132.76	1.66
Furnace	$ 275.00	4.84	1.60
Clothes Dryer Outlet	$ 75.00	14.96	1.53
Range	$ 75.00	7.60	1.33

Program 4: Florida Division of Chesapeake Utilities Corporation Residential Water Heater Retention Program

10. The Residential Water Heater Retention Program is a new program offered to existing customers and to dealers to encourage the continued use of natural gas in the home and avoid costly abandonment activities by the Company. Residential customers often consider only the initial cost of a replacement appliance without considering ongoing operational costs. The water heater is not only the primary natural gas cost savings appliances within the home, but it is also the anchor natural gas load within the home. If the gas water heater is replaced with a non-gas water heater, all the other gas appliances usually follow. This leads to the requirement for the Company to abandon the infrastructure needed to provide service to the home. This is costly, time consuming and a poor use of limited resources. As an incentive to continue to provide substantial benefits to the residential customers and utilize resources effectively, this program offers a cash payment to the customer and dealer. An important aspect of this program is the incentive to the dealer who typically makes the recommendation to the residential customer for appliance replacement. Often the easy choice by the dealer is to recommend the low initial-cost alternative which is an easy sell to the customer. The dealer is not concerned about operating costs since the dealer is not involved in the monthly payment of the utility bills. Thus, an incentive to encourage both the customer and the dealer to promote the retention of the natural gas water heater is appropriate. Cost effectiveness data for the Residential Water Heater Retention Program is attached hereto as Exhibit D. The level of incentives proposed under this program and the resulting Participants and Rim benefit/cost ratios are shown below.

	Incentives	Participants B/C Ratio	Rim B/C Ratio
Water Heater	$100.00	62.71	2.63
Dealer	$ 50.00		

Program 5: Florida Division of Chesapeake Utilities Corporation Natural Gas Space Conditioning for Residential Homes

11. This new conservation program is intended to encourage the use of energy efficient natural gas air conditioning products in residential homes. This program is also intended to reduce the electric peak load demands and help avoid the need for additional electric generation construction. As is the case with most new technologies and products, the initial cost for the new product is higher than "market mature" products. To overcome this barrier, it becomes necessary to offer incentives which help offset the initial cost differentials and provide the customer an opportunity to enjoy lower operating costs of the new natural gas technologies. This program is designed to offer a $1,200 per unit rebate to both newly constructed and retrofit homes.

12. Cost effectiveness data for the Natural Gas Space Conditioning for Residential Homes Program is attached hereto as Exhibit E. The level of incentive proposed under this program and the resulting Participants and Rim benefit/cost ratios are shown below.

	Incentives	Participants B/C Ratio	Rim B/C Ratio
Residential Natural Gas Cooling Equipment	$1200.00	1.38	1.85

Program 6: Florida Division of Chesapeake Utilities Corporation Gas Space Conditioning Conservation Program

13. This program is modification of an existing program that was approved by the Commission by Order No. PSC-94-1183-FOF-EG (September 27, 1994). The original program was designed to convert any customer from electric equipment to energy-efficient natural gas space conditioning equipment, whereas the modified program is applicable to only non-residential customers. The program provides an allowance to qualifying participants to compensate for the higher initial costs of natural gas space conditioning equipment and its installation. This program will help reduce the electric peak load demands and help avoid the need for additional electric generation construction.

14. Eligible participants include current and potential non-residential customers using electricity for space conditioning or new construction where space conditioning will be required. Participants will receive an allowance of $50 per ton of natural gas space conditioning equipment up to a maximum of 500 tons per system.

15. Cost effectiveness data for the Natural Gas Space Conditioning Program is attached hereto as Exhibit F. The level of incentive proposed under this program and the resulting Participants and Rim benefit/cost ratios are shown below.

	Incentives	Participants B/C Ratio	Rim B/C Ratio
Engine Driven Chiller	$50/Ton	1.20	1.45

Program 7: Florida Division of Chesapeake Utilities Corporation Conservation Education Program

16. The objective of this program is to teach adults and young people conservation measures designed to reduce energy consumption and consequently reduce their family's utility bill.

We continue to offer no-cost walk-through energy audits on the proper use of natural gas appliances and conservation tips to gas customers, together with literature outlining the expected savings from using natural gas appliances when compared to other energy sources.

We continue to meet requests from schools and the community for speakers and from schools for conservation education materials. The Company requests approval to continue this program unchanged.

17. The Company submits that its conservation programs described herein, are realistic, cost effective as indicated, capable of being monitored, and will have an overall positive effect on energy conservation.

WHEREFORE, the Florida Division of Chesapeake Utilities Corporation respectfully requests that this Commission approve the conservation programs filed herein for Energy Conservation Recovery.

Respectfully submitted this 25th day of March 1998.

Wayne L. Schiefelbein

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Attorneys for The Florida Division
of Chesapeake Utilities Corporation

Florida Division of Chesapeake Utilities
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios

Residential Builder Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	275	4.19	1.66
Furnace	275	2.84	1.60
Clothes Dryer Outlet	75	3.34	1.53
Range	75	2.45	1.33

Residential Appliance Replacement Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	330	4.79	1.64
Furnace	330	2.73	1.59
Clothes Dryer	50	3.17	1.68
Range	50	2.30	1.48

Residential Propane Distribution Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	275	132.76	1.66
Furnace	275	4.84	1.60
Clothes Dryer Outlet	75	14.96	1.53
Range	75	7.60	1.33

Residential Water Heater Retention Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	150	62.71	2.63

Natural Gas Space Conditioning For Residential Homes Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Triathlon/Equivalent	1200	1.38	1.65

Natural Gas Space Conditioning

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Engine Dr. Chiller	50/ton	1.20	1.45

Florida Division of Chesapeake Utilities
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios

Residential Builder Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	275	4.19	1.66
Furnace	275	2.84	1.60
Clothes Dryer Outlet	75	3.34	1.53
Range	75	2.45	1.33

Rate Impact Measure Test Data

All Costs in 1998 dollars Analysis Start Year 1998 Number of Years 20

Gas Program Residential Home Builder Program Gas Rate Number Electric Rate Number

Gas Measure: **Water Heater 40 gallon**
New Customer, New Dwelling
New Main

Alternate Option: **Electric Resistance Water Heater 50 gallon**
Alt FuelType: **Electric**

Allowance: **$275**

Gas Utility: **Chesapeake Utilities Corporation**

Electric Utility: **Tampa Electric Co.**

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

II. Operating Data

1. Energy Factor	0.56

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101.0	67.0	168.0
3. Seasonal Rate			0.0
Total	101.0	67.0	168.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	39.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust' Cost	$728
5. Utility Allowance	$275
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type	
Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175
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	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
	$	$	$	$	$	$	$	$
1998	138	31	169	22	11	52	323	408
1999	142	32	174	21	11	54		86
2000	146	33	179	20	11	56		87
2001	151	34	185	20	12	57		88
2002	155	35	190	19	12	59		90
2003	160	36	196	18	12	61		91
2004	165	37	202	17	13	62		92
2005	170	38	208	16	13	64		94
2006	175	39	214	16	13	66		95
2007	180	40	220	15	13	68		97
2008	185	42	227	14	14	70		98
2009	191	43	234	13	14	72		100
2010	197	44	241	13	15	75		102
2011	203	45	248	12	15	77		103
2012	209	47	256	11	16	79		106
2013	215	48	263	10	16	82		108
2014	221	50	271	9	16	84		110
2015	228	51	279	9	17	87		112
2016	235	53	288	8	17	89		114
2017	242	54	296	7	18	92		117

Present Value of Benefits	$1,963	$1,182

Benefit/Cost Ratio	1.66

Table 1

Winter

1	2	3	4	5	6
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	168	0.43138	0.38877	0.82103	138
1999	168	0.44435	0.40148	0.84669	142
2000	168	0.45763	0.41360	0.87103	146
2001	168	0.47128	0.42591	0.89716	151
2002	168	0.48539	0.43869	0.92407	155
2003	168	0.49986	0.45195	0.95179	160
2004	168	0.51486	0.46549	0.98035	165
2005	168	0.53040	0.47934	1.00975	170
2006	168	0.54631	0.48374	1.04005	175
2007	168	0.56275	0.50899	1.07126	180
2008	168	0.57968	0.52381	1.10339	185
2009	168	0.59698	0.53953	1.13649	191
2010	168	0.61467	0.55571	1.17058	197
2011	168	0.63332	0.57239	1.20571	203
2012	168	0.65233	0.58956	1.24188	209
2013	168	0.67188	0.60724	1.27913	216
2014	168	0.69205	0.62546	1.31751	221
2015	168	0.71281	0.64422	1.35703	228
2016	168	0.73419	0.66355	1.39774	236
2017	168	0.75622	0.68345	1.43966	242

Table 2

Winter

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	39.72%	$31
1999	6.70	80.34	39.72%	$32
2000	6.90	82.75	39.72%	$33
2001	7.10	85.23	39.72%	$34
2002	7.32	87.79	39.72%	$35
2003	7.54	90.42	39.72%	$36
2004	7.78	93.14	39.72%	$37
2005	7.99	95.93	39.72%	$38
2006	8.23	98.81	39.72%	$39
2007	8.48	101.77	39.72%	$40
2008	8.74	104.83	39.72%	$42
2008	9.00	107.97	39.72%	$43
2010	9.27	111.21	39.72%	$44
2011	9.55	114.55	39.72%	$45
2012	9.83	117.90	39.72%	$47
2013	10.13	121.52	39.72%	$48
2014	10.43	125.17	39.72%	$50
2015	10.74	128.93	39.72%	$51
2016	11.07	132.79	39.72%	$53
2017	11.40	136.77	39.72%	$54

Table 4

Winter

1	2	3	4	5	6	7	8	8*5+8*6
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main Oblid
1998	2	25	114	25	138	2.04	39.72%	11
1999	2	26	110	24	134	2.04	39.72%	11
2000	2	26	106	23	129	2.04	39.72%	11
2001	2	27	102	22	124	2.04	39.72%	12
2002	2	28	98	21	118	2.04	39.72%	12
2003	2	29	94	20	114	2.04	39.72%	12
2004	2	30	90	19	109	2.04	39.72%	13
2005	3	31	86	18	104	2.04	39.72%	13
2006	3	31	82	17	99	2.04	39.72%	13
2007	3	32	78	16	94	2.04	39.72%	13
2008	3	33	74	15	89	2.04	39.72%	14
2008	3	34	70	14	84	2.04	39.72%	14
2010	3	35	66	13	79	2.04	39.72%	15
2011	3	36	62	12	74	2.04	39.72%	15
2012	3	36	58	11	69	2.04	39.72%	16
2013	3	39	54	10	64	2.04	39.72%	16
2014	3	40	50	9	59	2.04	39.72%	16
2015	3	41	46	8	54	2.04	39.72%	17
2016	4	42	42	7	48	2.04	39.72%	17
2017	4	44	38	6	44	2.04	39.72%	18

Table 3

Winter

1	2	3	4	5	6	7	8	7*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Srv
1998	25	114	384	209	7.57%	738	39.72%	$22
1999	24	110	371	187	7.57%	702	39.72%	$21
2000	23	106	358	188	7.57%	679	39.72%	$20
2001	22	102	345	181	7.57%	650	39.72%	$20
2002	21	98	332	173	7.57%	624	39.72%	$18
2003	20	94	318	165	7.57%	598	39.72%	$18
2004	19	90	305	157	7.57%	572	39.72%	$17
2005	18	86	293	148	7.57%	546	39.72%	$16
2006	17	82	280	141	7.57%	520	39.72%	$16
2007	16	78	267	133	7.57%	494	39.72%	$15
2008	15	74	254	126	7.57%	468	39.72%	$14
2009	14	70	241	117	7.57%	442	39.72%	$13
2010	13	66	228	109	7.57%	416	39.72%	$13
2011	12	62	216	101	7.57%	390	39.72%	$12
2012	11	58	202	93	7.57%	364	39.72%	$11
2013	10	54	189	85	7.57%	338	39.72%	$10
2014	9	50	176	77	7.57%	312	39.72%	$9
2015	8	46	163	69	7.57%	286	39.72%	$9
2016	7	42	150	61	7.57%	260	39.72%	$8
2017	6	38	137	54	7.57%	236	39.72%	$7

Table 5

Winter

1	2	3	4	5	6	7	8
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Prestorg & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	168	101	67	0.2250	0.0418	1.33	$62
1999	168	101	67	0.2318	0.0430	1.33	$64
2000	168	101	67	0.2387	0.0443	1.33	$66
2001	168	101	67	0.2459	0.0456	1.33	$67
2002	168	101	67	0.2533	0.0470	1.33	$69
2003	168	101	67	0.2609	0.0484	1.33	$81
2004	168	101	67	0.2687	0.0498	1.33	$82
2005	168	101	67	0.2768	0.0513	1.33	$84
2006	168	101	67	0.2851	0.0528	1.33	$86
2007	168	101	67	0.2936	0.0545	1.33	$88
2008	168	101	67	0.3024	0.0561	1.33	$70
2009	168	101	67	0.3115	0.0578	1.33	$72
2010	168	101	67	0.3209	0.0595	1.33	$75
2011	168	101	67	0.3305	0.0613	1.33	$77
2012	168	101	67	0.3404	0.0632	1.33	$79
2013	168	101	67	0.3506	0.0650	1.33	$82
2014	168	101	67	0.3611	0.0670	1.33	$84
2015	168	101	67	0.3720	0.0690	1.33	$87
2016	168	101	67	0.3831	0.0711	1.33	$89
2017	168	101	67	0.3946	0.0732	1.33	$92

Rate Impact Measure Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years 20

Gas Program: Residential Home Builder Program Gas Rate Number Electric Rate Number

Gas Measure: Furnace
New Customer, New Dwelling
New Main

Allowance: $275

Gas Utility: Chesapeake Utilities Corporation

Alternate Option: Electric Resistance Furnace
Alt FuelType: Electric

Electric Utility: Tampa Electric

I. Avoided Costs

	$
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	177.0	0.0	177.0
3. Seasonal Rate			0.0
Total	177.0	0.0	177.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	41.84%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$275
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

	Gas Supply Cost $/Therm
1. Load Profile Type	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	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	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Facilities O&M	Gas Supply Cost	Program & Allowance Cost	Heating Total Columns 6 thru 9
	Table 1	Table 2		Table 3	Table 4	Table 5		
1	2	3	4	5	6	7	8	9
	$	$	$	$	$	$	$	$
1998	145	33	178	23	12	60	323	418
1999	150	34	184	22	12	62		96
2000	154	35	189	21	12	64		97
2001	159	36	195	21	12	66		99
2002	164	37	201	20	13	68		100
2003	168	38	206	19	13	70		102
2004	174	39	213	18	13	72		104
2005	179	40	219	17	14	74		105
2006	184	41	225	16	14	77		107
2007	190	43	233	16	14	79		109
2008	195	44	239	15	15	81		111
2009	201	45	246	14	15	84		113
2010	207	47	254	13	15	86		115
2011	213	48	261	12	16	89		117
2012	220	49	269	12	16	91		119
2013	226	51	277	11	16	94		121
2014	233	52	285	10	17	97		124
2015	240	54	294	9	18	100		126
2016	247	56	303	8	18	103		129
2017	255	57	312	7	19	106		132

Present Value of Benefits	$2,067	$1,291
Benefit/Cost Ratio		1.60

Table 1

Purchase

1	2	3	4	5	6=2*5
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	177	$0.43128	$0.58877	$0.87103	145
1999	177	$0.44430	$0.42146	$0.84566	150
2000	177	$0.46753	$0.41360	$0.87103	154
2001	177	$0.47125	$0.42591	$0.89716	158
2002	177	$0.48539	$0.43869	$0.92407	164
2003	177	$0.49895	$0.46185	$0.96179	168
2004	177	$0.51486	$0.48549	$0.99035	174
2005	177	$0.53040	$0.47838	$1.00878	179
2006	177	$0.54831	$0.48374	$1.04055	184
2007	177	$0.56270	$0.50806	$1.07135	190
2008	177	$0.57956	$0.52381	$1.10339	195
2009	177	$0.59698	$0.53953	$1.13648	201
2010	177	$0.61467	$0.55671	$1.17089	207
2011	177	$0.63332	$0.57238	$1.20571	213
2012	177	$0.65232	$0.58958	$1.24188	220
2013	177	$0.67188	$0.60724	$1.27913	226
2014	177	$0.69206	$0.62546	$1.31751	233
2015	177	$0.71281	$0.64422	$1.35703	240
2016	177	$0.73419	$0.66355	$1.39774	247
2017	177	$0.75622	$0.68345	$1.43966	255

Table 2

Purchase

1	2	3	4	5=3*4
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg
1998	6.50	78.00	41.84%	$33
1999	6.70	80.34	41.84%	$34
2000	6.90	82.75	41.84%	$35
2001	7.10	85.23	41.84%	$36
2002	7.32	87.79	41.84%	$37
2003	7.54	90.42	41.84%	$38
2004	7.76	93.14	41.84%	$39
2005	7.99	95.93	41.84%	$40
2006	8.23	98.81	41.84%	$41
2007	8.48	101.77	41.84%	$43
2008	8.74	104.83	41.84%	$44
2009	9.00	107.97	41.84%	$45
2010	9.27	111.21	41.84%	$47
2011	9.55	114.55	41.84%	$48
2012	9.83	117.98	41.84%	$49
2013	10.13	121.52	41.84%	$51
2014	10.43	125.17	41.84%	$52
2015	10.74	128.92	41.84%	$54
2016	11.07	132.79	41.84%	$56
2017	11.40	136.77	41.84%	$57

Table 4

Purchase

1	2	3	4	5	6	7	8	9=7+8
Year	Adm. Cost	Annual Adm. Cost	Weatherizer Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
1998	2	25	114	25	139	2.04	41.84%	12
1999	2	26	110	24	134	2.04	41.84%	12
2000	2	26	106	23	129	2.04	41.84%	12
2001	2	27	102	22	124	2.04	41.84%	12
2002	2	28	98	21	119	2.04	41.84%	13
2003	2	29	94	20	114	2.04	41.84%	13
2004	2	30	90	19	109	2.04	41.84%	13
2005	3	31	86	18	104	2.04	41.84%	14
2006	3	31	82	17	99	2.04	41.84%	14
2007	3	32	78	16	94	2.04	41.84%	14
2008	3	33	74	15	89	2.04	41.84%	15
2009	3	34	70	14	84	2.04	41.84%	15
2010	3	35	66	13	79	2.04	41.84%	15
2011	3	36	62	12	74	2.04	41.84%	16
2012	3	36	58	11	69	2.04	41.84%	16
2013	3	38	54	10	64	2.04	41.84%	17
2014	3	40	50	9	59	2.04	41.84%	17
2015	3	41	46	8	54	2.04	41.84%	18
2016	4	42	42	7	49	2.04	41.84%	18
2017	4	44	38	6	44	2.04	41.84%	19

Table 3

Purchase

1	2	3	4	5	6	7	8	9=8*6
Year	Supply Main	Development Main	Services Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
1998	25	114	384	306	7.57%	728	41.84%	$23
1999	24	110	371	187	7.57%	702	41.84%	$22
2000	23	106	358	188	7.57%	678	41.84%	$21
2001	22	102	345	181	7.57%	650	41.84%	$21
2002	21	98	332	173	7.57%	624	41.84%	$20
2003	20	94	319	165	7.57%	598	41.84%	$19
2004	19	90	306	157	7.57%	572	41.84%	$18
2005	18	86	293	148	7.57%	546	41.84%	$17
2006	17	82	280	141	7.57%	520	41.84%	$16
2007	16	78	267	133	7.57%	494	41.84%	$16
2008	15	74	254	125	7.57%	468	41.84%	$15
2009	14	70	241	117	7.57%	442	41.84%	$14
2010	13	66	228	109	7.57%	416	41.84%	$13
2011	12	62	215	101	7.57%	390	41.84%	$12
2012	11	58	202	93	7.57%	364	41.84%	$12
2013	10	54	189	85	7.57%	338	41.84%	$11
2014	9	50	176	77	7.57%	312	41.84%	$10
2015	8	46	163	69	7.57%	286	41.84%	$9
2016	7	42	150	61	7.57%	260	41.84%	$8
2017	6	38	137	54	7.57%	235	41.84%	$7

Table 5

Purchase

1	2	3	4	5	6	7	8=1+2+3+4+5+6+7
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Pooling & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	177	177	0	0.2350	0.0418	1.33	$60
1999	177	177	0	0.2318	0.0430	1.33	$62
2000	177	177	0	0.2367	0.0443	1.33	$64
2001	177	177	0	0.2459	0.0456	1.33	$66
2002	177	177	0	0.2533	0.0470	1.33	$68
2003	177	177	0	0.2608	0.0484	1.33	$70
2004	177	177	0	0.2667	0.0499	1.33	$72
2005	177	177	0	0.2798	0.0513	1.33	$74
2006	177	177	0	0.2851	0.0529	1.33	$77
2007	177	177	0	0.2936	0.0545	1.33	$79
2008	177	177	0	0.3024	0.0561	1.33	$81
2009	177	177	0	0.3115	0.0578	1.33	$84
2010	177	177	0	0.3209	0.0595	1.33	$86
2011	177	177	0	0.3305	0.0613	1.33	$88
2012	177	177	0	0.3404	0.0632	1.33	$91
2013	177	177	0	0.3508	0.0650	1.33	$94
2014	177	177	0	0.3611	0.0670	1.33	$97
2015	177	177	0	0.3720	0.0690	1.33	$100
2016	177	177	0	0.3831	0.0711	1.33	$103
2017	177	177	0	0.3948	0.0732	1.33	$106

Rate Impact Measure Test Data

All Costs in 1998 dollars. Analysis Start Year 1998 Number of Years 20

Gas Program: Residential Home Builder Program Gas Rate Number Electric Rate Number

Gas Measure: Dryer
New Customer, New Dwelling
New Main

Allowance: $78

Gas Utility: Chesapeake Utilities Corporation

Alternate Option: Dryer
Alt FuelType: Electric

Electric Utility: Tampa Electric

I. Avoided Costs

	$
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	23.0	23.0	46.0
3. Seasonal Rate			0.0
Total	23.0	23.0	46.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	10.87%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$75
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	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

1	2 Consumed Conserved Displaced Gas Therms Table 1 $	3 Gas Customer Charge Table 2 $	4 Total Columns 2 thru 3 $	5 Carrying Chg. On Main, Svc. & Meter Table 3 $	6 New Customer Admin. & Facilities O&M Table 4 $	7 Gas Supply Cost Table 5 $	8 Program & Allowance Cost $	9 Dryer Total Columns 6 thru 9 $
1998	38	8	46	6	3	14	123	146
1999	39	9	48	6	3	14		23
2000	40	9	49	6	3	15		24
2001	41	9	50	5	3	15		24
2002	43	10	53	5	3	16		24
2003	44	10	54	5	3	16		25
2004	45	10	55	5	4	17		25
2005	46	10	56	4	4	17		25
2006	48	11	59	4	4	18		26
2007	49	11	60	4	4	18		26
2008	51	11	62	4	4	19		26
2009	52	12	64	4	4	19		27
2010	54	12	66	3	4	20		27
2011	55	12	67	3	4	21		28
2012	57	13	70	3	4	21		28
2013	59	13	72	3	4	22		29
2014	61	14	75	3	4	22		29
2015	62	14	76	2	5	23		30
2016	64	14	78	2	5	24		31
2017	66	15	81	2	5	25		31

Present Valu of Benefits	$537	$351

Benefit/Cost Ratio	1.53

Table 1

Dryer

1	2	3	4	5	2*5
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	48	$0.43128	$0.39977	$0.83105	$39
1999	48	$0.44428	$0.40146	$0.84[illegible]	$39
2000	48	$0.45752	$0.41373	$0.87125	$40
2001	48	$0.47126	$0.42091	$0.89714	$41
2002	48	$0.48[illegible]	$0.42[illegible]	$0.92457	$43
2003	48	$0.49[illegible]	$0.43[illegible]	$0.95176	$44
2004	48	$0.51485	$0.44[illegible]	$0.98[illegible]	$45
2005	48	$0.53040	$0.47938	$1.00979	$46
2006	48	$0.54631	$0.49574	$1.04205	$48
2007	48	$0.56270	$0.50[illegible]	$1.07135	$49
2008	48	$0.57958	$0.52091	$1.10[illegible]	$51
2009	48	$0.59[illegible]	$0.53[illegible]	$1.13[illegible]	$53
2010	48	$0.61487	$0.55671	$1.17[illegible]	$54
2011	48	$0.63332	$0.57230	$1.20571	$56
2012	48	$0.65232	$0.58[illegible]	$1.24[illegible]	$57
2013	48	$0.67189	$0.60734	$1.27913	$59
2014	48	$0.69205	$0.62546	$1.31751	$61
2015	48	$0.71281	$0.64422	$1.35703	$63
2016	48	$0.73419	$0.66355	$1.39774	$64
2017	48	$0.75622	$0.68346	$1.43[illegible]	$66

Table 2

Dryer

1	2	3	4	4*3
Year	Customer Chargeable	Annual Cust. Chg.	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1998	6.60	79.20	10.87%	$9
1999	6.79	80.34	10.87%	$9
2000	6.80	82.75	10.87%	$9
2001	7.10	85.23	10.87%	$9
2002	7.32	87.79	10.87%	$10
2003	7.54	90.42	10.87%	$10
2004	7.76	93.14	10.87%	$10
2005	7.99	95.93	10.87%	$10
2006	8.23	98.81	10.87%	$11
2007	8.48	101.77	10.87%	$11
2008	8.74	104.83	10.87%	$11
2009	9.00	107.97	10.87%	$12
2010	9.27	111.21	10.87%	$12
2011	9.55	114.55	10.87%	$12
2012	9.83	117.98	10.87%	$13
2013	10.13	121.52	10.87%	$13
2014	10.43	125.17	10.87%	$14
2015	10.74	128.92	10.87%	$14
2016	11.07	132.79	10.87%	$14
2017	11.40	136.77	10.87%	$15

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
1998	25	114	384	208	7.87%	739	10.87%	$6
1999	24	110	371	187	7.87%	702	10.87%	$6
2000	23	106	359	189	7.87%	676	10.87%	$6
2001	22	102	346	181	7.87%	650	10.87%	$6
2002	21	98	332	175	7.87%	624	10.87%	$5
2003	20	94	318	165	7.87%	598	10.87%	$5
2004	19	90	306	157	7.87%	572	10.87%	$5
2005	18	86	293	149	7.87%	546	10.87%	$4
2006	17	82	280	141	7.87%	520	10.87%	$4
2007	16	78	267	133	7.87%	494	10.87%	$4
2008	15	74	254	125	7.87%	468	10.87%	$4
2009	14	70	241	117	7.87%	442	10.87%	$4
2010	13	66	228	109	7.87%	416	10.87%	$3
2011	12	62	215	101	7.87%	390	10.87%	$3
2012	11	58	202	93	7.87%	364	10.87%	$3
2013	10	54	189	85	7.87%	338	10.87%	$3
2014	9	50	176	77	7.87%	312	10.87%	$3
2015	8	46	163	69	7.87%	286	10.87%	$2
2016	7	42	150	61	7.87%	260	10.87%	$2
2017	6	38	137	54	7.87%	235	10.87%	$2

Table 4

Dryer

1	2	3	4	5	6	7	8	3*7*8+6*7*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
1998	2	25	114	25	139	2.04%	10.87%	3
1999	2	26	110	24	134	2.04%	10.87%	3
2000	2	26	106	23	129	2.04%	10.87%	3
2001	2	27	102	22	124	2.04%	10.87%	3
2002	2	28	98	21	119	2.04%	10.87%	3
2003	2	28	94	20	114	2.04%	10.87%	3
2004	2	30	90	19	109	2.04%	10.87%	4
2005	3	31	86	18	104	2.04%	10.87%	4
2006	3	31	82	17	99	2.04%	10.87%	4
2007	3	32	78	16	94	2.04%	10.87%	4
2008	3	33	74	15	89	2.04%	10.87%	4
2009	3	34	70	14	84	2.04%	10.87%	4
2010	3	35	66	13	79	2.04%	10.87%	4
2011	3	36	62	12	74	2.04%	10.87%	4
2012	3	36	58	11	69	2.04%	10.87%	4
2013	3	38	54	10	64	2.04%	10.87%	4
2014	3	40	50	9	59	2.04%	10.87%	4
2015	3	41	46	8	54	2.04%	10.87%	5
2016	4	42	42	7	49	2.04%	10.87%	5
2017	4	44	38	6	44	2.04%	10.87%	5

Table 5

Dryer

1	2	3	4	5	6	7	[illegible]
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	48	25	23	0.2260	0.0418	1.33	$14
1999	48	25	23	0.2318	0.0430	1.33	$14
2000	48	25	23	0.2387	0.0443	1.33	$15
2001	48	25	23	0.2459	0.0456	1.33	$15
2002	48	25	23	0.2533	0.0470	1.33	$16
2003	48	25	23	0.2609	0.0484	1.33	$16
2004	48	25	23	0.2687	0.0499	1.33	$17
2005	48	25	23	0.2768	0.0513	1.33	$17
2006	48	25	23	0.2851	0.0529	1.33	$18
2007	48	25	23	0.2936	0.0545	1.33	$18
2008	48	25	23	0.3024	0.0561	1.33	$18
2009	48	25	23	0.3115	0.0578	1.33	$19
2010	48	25	23	0.3209	0.0595	1.33	$20
2011	48	25	23	0.3305	0.0613	1.33	$21
2012	48	25	23	0.3404	0.0632	1.33	$21
2013	48	25	23	0.3506	0.0650	1.33	$22
2014	48	25	23	0.3611	0.0670	1.33	$22
2015	48	25	23	0.3720	0.0690	1.33	$23
2016	48	25	23	0.3831	0.0711	1.33	$24
2017	48	25	23	0.3946	0.0732	1.33	$25

Rate Impact Measure Test Data

All Costs in 1998 dollars. Analysis Start Year 1998 Number of Years 20

Gas Program: Residential Home Builder Program Gas Rate Number Electric Rate Number

Gas Measure: Range
New Customer, New Dwelling
New Main

Alternate Option: Range
Alt FuelType: Electric

Allowance: $79

Gas Utility: Chesapeake Utilities Corporation

Electric Utility: Tampa Electric

	$
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	16.0	16.0	32.0
3. Seasonal Rate			0.0
Total	16.0	16.0	32.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	7.57%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$75
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	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	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	Range Total Columns 6 thru 9
1	2	3	4	5	6	7	8	9
	$	$	$	$	$	$	$	$
1998	26	6	32	$4	2	10	123	139
1999	27	6	33	$4	2	10		16
2000	28	6	34	$4	2	10		16
2001	29	6	35	$4	2	11		17
2002	30	7	37	$4	2	11		17
2003	30	7	37	$3	2	11		17
2004	31	7	38	$3	2	12		17
2005	32	7	39	$3	3	12		17
2006	33	7	40	$3	3	12		19
2007	34	8	42	$3	3	13		18
2008	35	8	43	$3	3	13		19
2009	36	8	44	$3	3	13		19
2010	37	8	45	$2	3	14		19
2011	39	9	48	$2	3	14		19
2012	40	9	49	$2	3	15		20
2013	41	9	50	$2	3	15		20
2014	42	9	51	$2	3	16		21
2015	43	10	53	$2	3	16		21
2016	45	10	55	$1	3	17		21
2017	46	10	56	$1	3	17		21

Present Value of Benefits	$372	Present Value of Costs	$280

Benefit/Cost Ratio	1.33

Table 1

Range

1	2	3	4	5	2*5
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	32	$0.43138	$0.38877	$0.82103	$26
1999	32	$0.44420	$0.40148	$0.84669	$27
2000	32	$0.45752	$0.41360	$0.87103	$28
2001	32	$0.47125	$0.42591	$0.89716	$29
2002	32	$0.48539	$0.43869	$0.92407	$30
2003	32	$0.49995	$0.45185	$0.95179	$30
2004	32	$0.51495	$0.46540	$0.98035	$31
2005	32	$0.53040	$0.47936	$1.00976	$32
2006	32	$0.54631	$0.49374	$1.04005	$33
2007	32	$0.56270	$0.50856	$1.07126	$34
2008	32	$0.57958	$0.52381	$1.10339	$35
2009	32	$0.59696	$0.53953	$1.13649	$36
2010	32	$0.61487	$0.55571	$1.17059	$37
2011	32	$0.63332	$0.57239	$1.20571	$39
2012	32	$0.65232	$0.58956	$1.24188	$40
2013	32	$0.67189	$0.60724	$1.27913	$41
2014	32	$0.69205	$0.62546	$1.31751	$42
2015	32	$0.71281	$0.64422	$1.35703	$43
2016	32	$0.73419	$0.66355	$1.39774	$45
2017	32	$0.75622	$0.68346	$1.43968	$46

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.
1998	6.50	78.00	7.57%	$6
1999	6.70	80.34	7.57%	$6
2000	6.90	82.75	7.57%	$6
2001	7.10	85.23	7.57%	$6
2002	7.32	87.79	7.57%	$7
2003	7.54	90.42	7.57%	$7
2004	7.76	93.14	7.57%	$7
2005	7.99	95.93	7.57%	$7
2006	8.23	98.81	7.57%	$7
2007	8.48	101.77	7.57%	$8
2008	8.74	104.83	7.57%	$8
2009	9.00	107.97	7.57%	$8
2010	9.27	111.21	7.57%	$8
2011	9.55	114.55	7.57%	$9
2012	9.83	117.98	7.57%	$9
2013	10.13	121.52	7.57%	$9
2014	10.43	125.17	7.57%	$9
2015	10.74	128.93	7.57%	$10
2016	11.07	132.79	7.57%	$10
2017	11.40	136.78	7.57%	$10

Table 3

Range

1	2	3	4	5	6	7	8	[illegible]
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio Therms Cons.	Carrying Chg Mains & Svc
1998	25	114	394	206	7.57%	738	7.57%	$4
1999	24	110	371	197	7.57%	702	7.57%	$4
2000	23	106	358	189	7.57%	676	7.57%	$4
2001	22	102	345	181	7.57%	650	7.57%	$4
2002	21	98	332	173	7.57%	624	7.57%	$4
2003	20	94	319	165	7.57%	598	7.57%	$3
2004	19	90	306	157	7.57%	572	7.57%	$3
2005	18	86	293	149	7.57%	546	7.57%	$3
2006	17	82	280	141	7.57%	520	7.57%	$3
2007	16	78	267	133	7.57%	494	7.57%	$3
2008	15	74	254	125	7.57%	468	7.57%	$3
2009	14	70	241	117	7.57%	442	7.57%	$3
2010	13	66	228	109	7.57%	416	7.57%	$2
2011	12	62	215	101	7.57%	390	7.57%	$2
2012	11	58	202	93	7.57%	364	7.57%	$2
2013	10	54	189	85	7.57%	338	7.57%	$2
2014	9	50	176	77	7.57%	312	7.57%	$2
2015	8	46	163	69	7.57%	286	7.57%	$2
2016	7	42	150	61	7.57%	260	7.57%	$1
2017	6	38	137	54	7.57%	235	7.57%	$1

Table 4

Range

1	2	3	4	5	6	7	[illegible]
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Customer Cost	Ratio Therms Total Consum.	New Customer Adm. & Main O&M
1998	2	25	114	25	139	7.57%	$2
1999	2	26	110	24	134	7.57%	$2
2000	2	26	106	23	129	7.57%	$2
2001	2	27	102	22	124	7.57%	$2
2002	2	28	98	21	119	7.57%	$2
2003	2	29	94	20	114	7.57%	$2
2004	2	30	90	19	109	7.57%	$2
2005	3	31	86	18	104	7.57%	$2
2006	3	31	82	17	99	7.57%	$3
2007	3	32	[illegible]	16	94	7.57%	$3
2008	3	33	74	15	89	7.57%	$3
2009	3	34	70	14	84	7.57%	$3
2010	3	35	66	13	79	7.57%	$3
2011	3	36	62	12	74	7.57%	$3
2012	3	36	58	11	69	7.57%	$3
2013	3	38	54	10	64	7.57%	$3
2014	3	40	50	9	58	7.57%	$3
2015	3	41	46	8	54	7.57%	$3
2016	4	42	42	7	49	7.57%	$3
2017	4	44	38	6	44	7.57%	$3

Table 5

Range

1	2	3	4	5	6	7	[illegible]
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	32	16	16	0.2250	0.0418	1.33	$10
1999	32	16	16	0.2318	0.0430	1.33	$10
2000	32	16	16	0.2387	0.0443	1.33	$10
2001	32	16	16	0.2459	0.0456	1.33	$11
2002	32	16	16	0.2533	0.0470	1.33	$11
2003	32	16	16	0.2608	0.0484	1.33	$11
2004	32	16	16	0.2687	0.0499	1.33	$12
2005	32	16	16	0.2768	0.0513	1.33	$12
2006	32	16	16	0.2851	0.0529	1.33	$12
2007	32	16	16	0.2936	0.0545	1.33	$13
2008	32	16	16	0.3024	0.0561	1.33	$13
2009	32	16	16	0.3115	0.0578	1.33	$13
2010	32	16	16	0.3209	0.0595	1.33	$14
2011	32	16	16	0.3305	0.0613	1.33	$14
2012	32	16	16	0.3404	0.0632	1.33	$15
2013	32	16	16	0.3506	0.0650	1.33	$15
2014	32	16	16	0.3611	0.0670	1.33	$16
2015	32	16	16	0.3720	0.0690	1.33	$16
2016	32	16	16	0.3831	0.0711	1.33	$17
2017	32	16	16	0.3946	0.0732	1.33	$17

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Home Builder Program Gas Rate Number: Electric Rate Number:

Gas Measure: Water Heater 40 gallon
New Customer, New Dwelling, New Main

Alternate Option: Electric Resistance Water Heater 60 gallon
Alt FuelType: Electric

Allowance: $275

Gas Utility: Chesapeake Utilities Corporation

Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$222
2. Installation	482
Total Cust. Cost	$704
3. Utility Rebate	$275
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101.0	67.0	168.0
3. Seasonal Rate			0.0
Total	101.0	67.0	168.0

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

Gas Rates	Rate
6. Base, Winter	$0.43128
7. Base, Summer	$0.43128
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	39.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate 8.65%

IV. Installed Cost Data

	$
1. Equipment	$233
2. Installation	180
Total Cust. Cost	$413
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3,222	3,222
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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		$0.0000
13. Electric Rate per KW, Summer		$0.0000
14. Electric Taxes & Fees		13.67%
15. Customer Chg		$8.85

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
1998	$267	$0	$157	$9	$7	$35	$275	$0	$352	$413	$704	$290
1999	$275	$0	$161	$9	$7	$36	0	0	$79	0	0	0
2000	$283	$0	$166	$10	$7	$37	0	0	$81	0	0	0
2001	$291	$0	$171	$10	$8	$38	0	0	$84	0	0	0
2002	$300	$0	$176	$10	$8	$40	0	0	$86	0	0	0
2003	$309	$0	$182	$10	$8	$41	0	0	$89	0	0	0
2004	$318	$0	$187	$11	$8	$42	0	0	$91	0	0	0
2005	$328	$0	$193	$11	$9	$43	0	0	$94	0	0	0
2006	$338	$0	$199	$11	$9	$45	0	0	$97	0	0	0
2007	$348	$0	$205	$12	$9	$46	0	0	$100	0	0	0
2008	$358	$0	$211	$12	$9	$47	0	0	$103	0	0	0
2009	$369	$0	$217	$12	$10	$49	0	0	$106	0	0	0
2010	$380	$0	$224	$13	$10	$50	0	0	$109	0	0	0
2011	$392	$0	$230	$13	$10	$52	0	0	$113	0	325	325
2012	$403	$0	$237	$14	$11	$53	0	0	$116	0	0	0
2013	$415	$0	$244	$14	$11	$55	0	0	$119	363	0	(363)
2014	$428	$0	$252	$14	$11	$57	0	0	$123	0	0	0
2015	$441	$0	$259	$15	$12	$58	0	0	$127	0	0	0
2016	$454	$0	$267	$15	$12	$60	0	0	$130	0	0	0
2017	$468	$0	$275	$16	$12	$62	0	0	$134	0	0	0
								Present Value of Benefits	$1,143		Present Value of Costs	$273
											Benefit/Cost Ratio	4.19

TABLE 1 **Electric KW Cost** WATER

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	$0.0726	3,222	13.67%	$267
1999	$0.0750	3,222	13.67%	$275
2000	$0.0772	3,222	13.67%	$283
2001	$0.0796	3,222	13.67%	$291
2002	$0.0819	3,222	13.67%	$300
2003	$0.0844	3,222	13.67%	$309
2004	$0.0869	3,222	13.67%	$318
2005	$0.0895	3,222	13.67%	$328
2006	$0.0922	3,222	13.67%	$338
2007	$0.0950	3,222	13.67%	$348
2008	$0.0978	3,222	13.67%	$358
2009	$0.1008	3,222	13.67%	$369
2010	$0.1038	3,222	13.67%	$380
2011	$0.1069	3,222	13.67%	$392
2012	$0.1101	3,222	13.67%	$403
2013	$0.1134	3,222	13.67%	$415
2014	$0.1168	3,222	13.67%	$428
2015	$0.1203	3,222	13.67%	$441
2016	$0.1239	3,222	13.67%	$454
2017	$0.1277	3,222	13.67%	$468

TABLE 2 **Consumed-Displaced-Conserved - Therms**

1	2	3	4	3*2*4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
1998	$0.8210	168	13.67%	$157
1999	$0.8457	168	13.67%	$161
2000	$0.8710	168	13.67%	$166
2001	$0.8972	168	13.67%	$171
2002	$0.9241	168	13.67%	$176
2003	$0.9518	168	13.67%	$182
2004	$0.9803	168	13.67%	$187
2005	$1.0098	168	13.67%	$193
2006	$1.0401	168	13.67%	$199
2007	$1.0713	168	13.67%	$205
2008	$1.1034	168	13.67%	$211
2009	$1.1365	168	13.67%	$217
2010	$1.1706	168	13.67%	$224
2011	$1.2057	168	13.67%	$230
2012	$1.2419	168	13.67%	$237
2013	$1.2791	168	13.67%	$244
2014	$1.3175	168	13.67%	$252
2015	$1.3570	168	13.67%	$259
2016	$1.3977	168	13.67%	$267
2017	$1.4397	168	13.67%	$275

TABLE 3 **Gas Customer Charge**

1	2	3	4	5	6	3*5+13.67%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Wtr Htr Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
1998	$6.50	$78.00	168	423	39.72%	$35
1999	$6.70	$80.34	168	423	39.72%	$36
2000	$6.90	$82.75	168	423	39.72%	$37
2001	$7.10	$85.23	168	423	39.72%	$38
2002	$7.32	$87.79	168	423	39.72%	$40
2003	$7.54	$90.42	168	423	39.72%	$41
2004	$7.76	$93.14	168	423	39.72%	$42
2005	$7.99	$95.93	168	423	39.72%	$43
2006	$8.23	$98.81	168	423	39.72%	$45
2007	$8.48	$101.77	168	423	39.72%	$46
2008	$8.74	$104.83	168	423	39.72%	$47
2009	$9.00	$107.97	168	423	39.72%	$49
2010	$9.27	$111.21	168	423	39.72%	$50
2011	$9.55	$114.55	168	423	39.72%	$52
2012	$9.83	$117.98	168	423	39.72%	$53
2013	$10.13	$121.52	168	423	39.72%	$55
2014	$10.43	$125.17	168	423	39.72%	$57
2015	$10.74	$128.92	168	423	39.72%	$58
2016	$11.07	$132.79	168	423	39.72%	$60
2017	$11.40	$136.77	168	423	39.72%	$62

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Home Builder Program

Gas Rate Number

Gas Measure: Furnace
New Customer, New Dwelling, New Main

Allowance: $275

Gas Utility: Chesapeake Utilities Corporation

I. Installed Cost Data

	$
1. Equipment	$1,460
2. Installation	579
Total Cust. Cost	$2,039
3. Utility Rebate	$275
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	177.0	0.0	177.0
3. Seasonal Rate			0.0
Total	177.0	0.0	177.0

4. Electric Consumption in KWH	
5. O&M (excluding energy)	$14

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	41.84%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

Electric Rate Number

Alternate Option: Electric Resistance Furnace
Alt FuelType: Electric

Electric Utility: Tampa Electric Co.

IV. Installed Cost Data

	$
1. Equipment	$543
2. Installation	616
Total Cust. Cost	$1,159
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	4,042	4,042
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)	$9
8. Monthly Utility Incentive	$0
9. Average Life in Yrs	16
10. Existing Remaining Life in Yrs	0
11. Electric Rate per KWH	$0.0728
12. Electric Rate per KW, Winter	$0.0000
13. Electric Rate per KW, Summer	$0.0000
14. Electric Taxes & Fees	13.67%
15.Customer Chg	$8.85

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
1998	$334	$0	$165	$9	$14	$37	$275	$0	$402	$1,159	$2,039	$880
1999	$345	$0	$170	$9	$14	$38	0	0	$131	0	0	0
2000	$355	$0	$175	$10	$15	$39	0	0	$135	0	0	0
2001	$365	$0	$181	$10	$15	$41	0	0	$139	0	0	0
2002	$376	$0	$186	$10	$16	$42	0	0	$143	0	0	0
2003	$388	$0	$191	$10	$16	$43	0	0	$147	0	0	0
2004	$399	$0	$197	$11	$17	$44	0	0	$152	0	0	0
2005	$411	$0	$203	$11	$17	$46	0	0	$156	0	0	0
2006	$424	$0	$209	$11	$18	$47	0	0	$161	0	0	0
2007	$436	$0	$216	$12	$18	$48	0	0	$166	0	0	0
2008	$450	$0	$222	$12	$19	$50	0	0	$171	0	0	0
2009	$463	$0	$229	$12	$19	$51	0	0	$176	0	0	0
2010	$477	$0	$236	$13	$20	$53	0	0	$181	0	0	0
2011	$491	$0	$243	$13	$21	$54	0	0	$187	0	0	0
2012	$506	$0	$250	$14	$21	$56	0	0	$192	0	0	0
2013	$521	$0	$257	$14	$22	$58	0	0	$198	0	0	0
2014	$537	$0	$265	$14	$22	$60	0	0	$204	0	0	0
2015	$553	$0	$273	$15	$23	$61	0	0	$210	897	0	-897
2016	$569	$0	$281	$15	$24	$63	0	0	$217	0	0	0
2017	$587	$0	$290	$16	$25	$65	0	0	$223	0	0	0
								Present Value of Benefits	$1,731		Present Value of Costs	$608

Benefit/Cost Ratio	2.84

TABLE 1 **Electric KW Cost** HEAT

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	$0.0728	4,042	13.67%	$334
1999	$0.0750	4,042	13.67%	$345
2000	$0.0772	4,042	13.67%	$355
2001	$0.0796	4,042	13.67%	$365
2002	$0.0819	4,042	13.67%	$376
2003	$0.0844	4,042	13.67%	$388
2004	$0.0869	4,042	13.67%	$399
2005	$0.0895	4,042	13.67%	$411
2006	$0.0922	4,042	13.67%	$424
2007	$0.0950	4,042	13.67%	$436
2008	$0.0978	4,042	13.67%	$450
2009	$0.1008	4,042	13.67%	$463
2010	$0.1038	4,042	13.67%	$477
2011	$0.1069	4,042	13.67%	$491
2012	$0.1101	4,042	13.67%	$506
2013	$0.1134	4,042	13.67%	$521
2014	$0.1168	4,042	13.67%	$537
2015	$0.1203	4,042	13.67%	$553
2016	$0.1239	4,042	13.67%	$569
2017	$0.1277	4,042	13.67%	$587

TABLE 2 **Consumed-Displaced-Conserved - Therms**

1	2	3	4	3*2*4
Year	Therm Cost	Annual Therms	Tax Feus	Gas Cost
1998	$0.8210	177	13.67%	$165
1999	$0.8457	177	13.67%	$170
2000	$0.8710	177	13.67%	$175
2001	$0.8972	177	13.67%	$181
2002	$0.9241	177	13.67%	$186
2003	$0.9518	177	13.67%	$191
2004	$0.9803	177	13.67%	$197
2005	$1.0098	177	13.67%	$203
2006	$1.0401	177	13.67%	$209
2007	$1.0713	177	13.67%	$216
2008	$1.1034	177	13.67%	$222
2009	$1.1365	177	13.67%	$229
2010	$1.1706	177	13.67%	$236
2011	$1.2057	177	13.67%	$243
2012	$1.2419	177	13.67%	$250
2013	$1.2791	177	13.67%	$257
2014	$1.3175	177	13.67%	$265
2015	$1.3570	177	13.67%	$273
2016	$1.3977	177	13.67%	$281
2017	$1.4397	177	13.67%	$290

TABLE 3 **Gas Customer Charge**

1	2	3	4	5	6	3*6+13.67%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Furnace Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	$6.50	$78.00	177	423	41.84%	$37
1999	$6.70	$80.34	177	423	41.84%	$38
2000	$6.90	$82.75	177	423	41.84%	$39
2001	$7.10	$85.23	177	423	41.84%	$41
2002	$7.32	$87.79	177	423	41.84%	$42
2003	$7.54	$90.42	177	423	41.84%	$43
2004	$7.76	$93.14	177	423	41.84%	$44
2005	$7.99	$95.93	177	423	41.84%	$46
2006	$8.23	$98.81	177	423	41.84%	$47
2007	$8.48	$101.77	177	423	41.84%	$48
2008	$8.74	$104.83	177	423	41.84%	$50
2009	$9.00	$107.97	177	423	41.84%	$51
2010	$9.27	$111.21	177	423	41.84%	$53
2011	$9.55	$114.55	177	423	41.84%	$54
2012	$9.83	$117.98	177	423	41.84%	$56
2013	$10.13	$121.52	177	423	41.84%	$58
2014	$10.43	$125.17	177	423	41.84%	$60
2015	$10.74	$128.92	177	423	41.84%	$61
2016	$11.07	$132.79	177	423	41.84%	$63
2017	$11.40	$136.77	177	423	41.84%	$65

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Home Builder Program

Gas Rate Number		Electric Rate Number
Gas Measure:	Dryer New Customer, New Dwelling, New Main	Alternate Option: Dryer Alt FuelType: Electric
Allowance:	$75	
Gas Utility:	Chesapeake Utilities Corporation	Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$400
2. Installation	180
Total Cust. Cost	$580
3. Utility Rebate	$75
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	23.0	23.0	46.0
3. Seasonal Rate			0.0
Total	23.0	23.0	46.0

4. Electric Consumption in KWH	
5. O&M (excluding energy)	$10

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	10.87%
15. Average Life	13

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	$350
2. Installation	107
Total Cust. Cost	$457
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	985	985
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)	$14
8. Monthly Utility Incentive	$0
9. Average Life in Yrs	13
10. Existing Remaining Life in Yrs	0
11. Electric Rate per KWH	$0.0728
12. Electric Rate per KW, Winter	$0.0000
13. Electric Rate per KW, Summer	$0.0000
14. Electric Taxes & Fees	13.67%
15 Customer Chg	$8.85

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
1997	$82	$0	$43	$14	$10	$10	$75	$0	$108	$457	$580	$123
1998	$84	$0	$44	$14	$10	$10	0	0	$34	0	0	0
1999	$86	$0	$46	$15	$11	$10	0	0	$35	0	0	0
2000	$89	$0	$47	$15	$11	$11	0	0	$36	0	0	0
2001	$92	$0	$48	$16	$11	$11	0	0	$37	0	0	0
2002	$94	$0	$50	$16	$12	$11	0	0	$38	0	0	0
2003	$97	$0	$51	$17	$12	$12	0	0	$39	0	0	0
2004	$100	$0	$53	$17	$12	$12	0	0	$41	0	0	0
2005	$103	$0	$54	$18	$13	$12	0	0	$42	0	0	0
2006	$106	$0	$56	$18	$13	$13	0	0	$43	0	0	0
2007	$110	$0	$58	$19	$13	$13	0	0	$44	0	0	0
2008	$113	$0	$59	$19	$14	$13	0	0	$46	0	0	0
2009	$116	$0	$61	$20	$14	$14	0	0	$47	0	0	0
2010	$120	$0	$63	$21	$15	$14	0	0	$48	0	0	0
2011	$123	$0	$65	$21	$15	$15	0	0	$50	529	605	76
2012	$127	$0	$67	$22	$16	$15	0	0	$51	0	0	0
2013	$131	$0	$69	$22	$16	$15	0	0	$53	0	0	0
2014	$135	$0	$71	$23	$17	$16	0	0	$54	0	0	0
2015	$139	$0	$73	$24	$17	$16	0	0	$56	0	0	0
2016	$143	$0	$75	$25	$18	$17	0	0	$58	0	0	0
								Present Value of Benefits	$452		Present Value of Costs	$135
											Benefit/Cost Ratio	3.34

TABLE 1 **Electric KW Cost** DRYER

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	$0.0728	985	13.67%	$82
1999	$0.0750	985	13.67%	$84
2000	$0.0772	985	13.67%	$86
2001	$0.0796	985	13.67%	$89
2002	$0.0819	985	13.67%	$92
2003	$0.0844	985	13.67%	$94
2004	$0.0869	985	13.67%	$97
2005	$0.0895	985	13.67%	$100
2006	$0.0922	985	13.67%	$103
2007	$0.0950	985	13.67%	$106
2008	$0.0978	985	13.67%	$110
2009	$0.1008	985	13.67%	$113
2010	$0.1038	985	13.67%	$116
2011	$0.1069	985	13.67%	$120
2012	$0.1101	985	13.67%	$123
2013	$0.1134	985	13.67%	$127
2014	$0.1168	985	13.67%	$131
2015	$0.1203	985	13.67%	$135
2016	$0.1239	985	13.67%	$139
2017	$0.1277	985	13.67%	$143

TABLE 2 **Consumed-Displaced-Conserved - Therms**

1	2	3	4	3*2*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1998	$0.8210	46	13.67%	$43
1999	$0.8457	46	13.67%	$44
2000	$0.8710	46	13.67%	$46
2001	$0.8972	46	13.67%	$47
2002	$0.9241	46	13.67%	$48
2003	$0.9518	46	13.67%	$50
2004	$0.9803	46	13.67%	$51
2005	$1.0098	46	13.67%	$53
2006	$1.0401	46	13.67%	$54
2007	$1.0713	46	13.67%	$56
2008	$1.1034	46	13.67%	$58
2009	$1.1365	46	13.67%	$59
2010	$1.1706	46	13.67%	$61
2011	$1.2057	46	13.67%	$63
2012	$1.2419	46	13.67%	$65
2013	$1.2791	46	13.67%	$67
2014	$1.3175	46	13.67%	$69
2015	$1.3570	46	13.67%	$71
2016	$1.3977	46	13.67%	$73
2017	$1.4397	46	13.67%	$75

TABLE 3 **Gas Customer Charge**

1	2	3	4	5	6	3*6+13.67%
Year	Cust. Chrg	Annual Cust. Chrg	Dryer Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
1998	$6.50	$78.00	46	423	10.87%	10
1999	$6.70	$80.34	46	423	10.87%	10
2000	$6.90	$82.75	46	423	10.87%	10
2001	$7.10	$85.23	46	423	10.87%	11
2002	$7.32	$87.79	46	423	10.87%	11
2003	$7.54	$90.42	46	423	10.87%	11
2004	$7.76	$93.14	46	423	10.87%	12
2005	$7.99	$95.93	46	423	10.87%	12
2006	$8.23	$98.81	46	423	10.87%	12
2007	$8.48	$101.77	46	423	10.87%	13
2008	$8.74	$104.83	46	423	10.87%	13
2009	$9.00	$107.97	46	423	10.87%	13
2010	$9.27	$111.21	46	423	10.87%	14
2011	$9.55	$114.55	46	423	10.87%	14
2012	$9.83	$117.98	46	423	10.87%	15
2013	$10.13	$121.52	46	423	10.87%	15
2014	$10.43	$125.17	46	423	10.87%	15
2015	$10.74	$128.92	46	423	10.87%	16
2016	$11.07	$132.79	46	423	10.87%	16
2017	$11.40	$136.77	46	423	10.87%	17

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Home Builder Program

Gas Rate Number

Gas Measure: Range
New Customer, New Dwelling, New Main

Allowance: $75

Gas Utility: Chesapeake Utilities Corporation

Electric Rate Number

Alternate Option: Range
Alt FuelType: Electric

Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$600
2. Installation	182
Total Cust. Cost	$782
3. Utility Rebate	$75
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	16.0	16.0	32.0
3. Seasonal Rate			0.0
Total	16.0	16.0	32.0

4. Electric Consumption in KWH	
5. O&M (excluding energy)	$8

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	7.57%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	$500
2. Installation	107
Total Cust. Cost	$607
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	687	687
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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	$0.0728
12. Electric Rate per KW, Winter	$0.0000
13. Electric Rate per KW, Summer	$0.0000
14. Electric Taxes & Fees	13.67%
15. Customer Chg	$8.85

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
1997	$57	$0	$30	$12	$8	$7	$75	$0	$99	$607	$762	$155
1998	$59	$0	$31	$12	$8	$7	0	0	$25	0	0	0
1999	$60	$0	$32	$13	$8	$7	0	0	$26	0	0	0
2000	$62	$0	$33	$13	$9	$7	0	0	$27	0	0	0
2001	$64	$0	$34	$14	$9	$8	0	0	$27	0	0	0
2002	$66	$0	$35	$14	$9	$8	0	0	$28	0	0	0
2003	$68	$0	$36	$14	$10	$8	0	0	$29	0	0	0
2004	$70	$0	$37	$15	$10	$8	0	0	$30	0	0	0
2005	$72	$0	$38	$15	$10	$8	0	0	$31	0	0	0
2006	$74	$0	$39	$16	$10	$9	0	0	$32	0	0	0
2007	$76	$0	$40	$16	$11	$9	0	0	$33	0	0	0
2008	$79	$0	$41	$17	$11	$9	0	0	$34	0	0	0
2009	$81	$0	$43	$17	$11	$10	0	0	$35	0	0	0
2010	$83	$0	$44	$18	$12	$10	0	0	$36	0	0	0
2011	$86	$0	$45	$18	$12	$10	0	0	$37	0	0	0
2012	$89	$0	$47	$19	$12	$10	0	0	$38	0	0	0
2013	$91	$0	$48	$19	$13	$11	0	0	$39	0	0	0
2014	$94	$0	$49	$20	$13	$11	0	0	$40	0	0	0
2015	$97	$0	$51	$20	$14	$11	0	0	$41	0	0	0
2016	$100	$0	$52	$21	$14	$12	0	0	$43	0	0	0
								Present Value of Benefits	$351		Present Value of Costs	$143
											Benefit/Cost Ratio	2.45

TABLE 1 **Electric KW Cost** **RANGE**

1	2	3	4	3*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	$0.0728	687	13.67%	$57
1999	$0.0750	687	13.67%	$59
2000	$0.0772	687	13.67%	$60
2001	$0.0795	687	13.67%	$62
2002	$0.0819	687	13.67%	$64
2003	$0.0844	687	13.67%	$66
2004	$0.0869	687	13.67%	$68
2005	$0.0895	687	13.67%	$70
2006	$0.0922	687	13.67%	$72
2007	$0.0950	687	13.67%	$74
2008	$0.0978	687	13.67%	$76
2009	$0.1008	687	13.67%	$79
2010	$0.1038	687	13.67%	$81
2011	$0.1069	687	13.67%	$83
2012	$0.1101	687	13.67%	$86
2013	$0.1134	687	13.67%	$89
2014	$0.1168	687	13.67%	$91
2015	$0.1203	687	13.67%	$94
2016	$0.1239	687	13.67%	$97
2017	$0.1277	687	13.67%	$100

TABLE 2 **Consumed-Displaced-Conserved - Therms**

1	2	3	4	3*2*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1998	$0.8210	32	13.67%	$30
1999	$0.8457	32	13.67%	$31
2000	$0.8710	32	13.67%	$32
2001	$0.8972	32	13.67%	$33
2002	$0.9241	32	13.67%	$34
2003	$0.9518	32	13.67%	$35
2004	$0.9803	32	13.67%	$36
2005	$1.0098	32	13.67%	$37
2006	$1.0401	32	13.67%	$38
2007	$1.0713	32	13.67%	$39
2008	$1.1034	32	13.67%	$40
2009	$1.1365	32	13.67%	$41
2010	$1.1706	32	13.67%	$43
2011	$1.2057	32	13.67%	$44
2012	$1.2419	32	13.67%	$45
2013	$1.2791	32	13.67%	$47
2014	$1.3175	32	13.67%	$48
2015	$1.3570	32	13.67%	$49
2016	$1.3977	32	13.67%	$51
2017	$1.4397	32	13.67%	$52

TABLE 3 **Gas Customer Charge**

1	2	3	4	5	6	3*5+13.67%
Year	Cust. Chrg	Annual Cust. Chrg	Range Annual Therms	Total Annual Therms	Ratio Therms Consumerd to Total	Gas Customer Charge
1998	$6.50	$78.00	32	423	7.57%	7
1999	$6.70	$80.34	32	423	7.57%	7
2000	$6.90	$82.75	32	423	7.57%	7
2001	$7.10	$85.23	32	423	7.57%	7
2002	$7.32	$87.79	32	423	7.57%	8
2003	$7.54	$90.42	32	423	7.57%	8
2004	$7.76	$93.14	32	423	7.57%	8
2005	$7.99	$95.93	32	423	7.57%	8
2006	$8.23	$98.81	32	423	7.57%	8
2007	$8.48	$101.77	32	423	7.57%	9
2008	$8.74	$104.83	32	423	7.57%	9
2009	$9.00	$107.97	32	423	7.57%	9
2010	$9.27	$111.21	32	423	7.57%	10
2011	$9.55	$114.55	32	423	7.57%	10
2012	$9.83	$117.98	32	423	7.57%	10
2013	$10.13	$121.52	32	423	7.57%	10
2014	$10.43	$125.17	32	423	7.57%	11
2015	$10.74	$128.92	32	423	7.57%	11
2016	$11.07	$132.79	32	423	7.57%	11
2017	$11.40	$136.77	32	423	7.57%	12

Florida Division of Chesapeake Utilities
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	4.79	1.64
Furnace	330	2.73	1.59
Clothes Dryer	50	3.17	1.68
Range	50	2.30	1.48

Rate Impact Measure Test Data

All Costs in 1998 Dollars | Analysis Start Year: 1998 | Number of Years: 20

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

Gas Measure: Water Heater | 40 gallon | Alternate Options: Electric Resistance Water Heater | 50 gallon

Alt FuelType: Electric

Allowance: $330

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric Co.

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

II Operating Data

1 Energy Factor	0.56

Therms Consumed	Winter	Summer	Total
2 Standard Rate	101.0	67.0	168.0
3 Seasonal Rate			0.0
Total	101.0	67.0	168.0

Gas Rates	Rate
6 Base, Winter	$0.43126
7 Base, Summer	$0.43126
8 Seasonal, Winter	
9 Seasonal, Summer	
10 PGA, Winter	0.38977
11 PGA, Summer	0.38977
12 Taxes & Fees	13.67%
13 Customer Chg	$6.50
14 Ratio of Therms Consumed to Total	39.72%
15 Average Life	12

III Common Gas & Electric Data

1 Discount Rate	8.65%

IV New Customer Installation Costs

	$
1 Supply Main	0
2 Development Main	0
3 Service	384
4 Meter	205
Total Cust. Cost	$589
5 Utility Allowance	$330
6 Program Cost	$48
7 New Customer Admin. Cost $/month	$2
8 Main O&M (Percent)	2.04%

V Gas Supply Cost

1 Load Profile Type	
Gas Supply Cost $/Therm	
2 Commodity (Annual)	$0.2250
3 Winter Multiplier	1.33
4 Summer Multiplier	1.00
5 Transportation, Capacity, Peaking and Balancing Cost	0.04175
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

	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	$138	$31	$0	$169	$18	$10	$52	$0	$378	$458
1999	$142	$32	$0	$174	$17	$10	$54	$0		$81
2000	$146	$33	$0	$179	$16	$10	$56	$0		$82
2001	$151	$34	$0	$185	$16	$11	$57	$0		$84
2002	$155	$35	$0	$190	$15	$11	$59	$0		$85
2003	$160	$36	$0	$196	$15	$11	$61	$0		$87
2004	$165	$37	$0	$202	$14	$12	$62	$0		$88
2005	$170	$38	$0	$208	$13	$12	$64	$0		$90
2006	$175	$39	$0	$214	$13	$12	$66	$0		$92
2007	$180	$40	$0	$220	$12	$13	$68	$0		$93
2008	$185	$42	$0	$227	$12	$13	$70	$0		$95
2009	$191	$43	$0	$234	$11	$14	$72	$0		$97
2010	$197	$44	$0	$241	$10	$14	$75	$0		$99
2011	$203	$46	$0	$249	$10	$14	$77	$0		$101
2012	$209	$47	$0	$256	$9	$15	$79	$0		$103
2013	$215	$48	$0	$263	$8	$15	$82	$0		$105
2014	$221	$50	$0	$271	$8	$16	$84	$0		$107
2015	$228	$51	$0	$279	$7	$16	$87	$0		$110
2016	$235	$53	$0	$288	$6	$17	$89	$0		$112
2017	$242	$54	$0	$296	$6	$17	$92	$0		$115

Present Value of Benefits	$1,963	Present Value of Costs	$1,196
		Benefit/Cost Ratio	1.64

Table 1

Rim

Water

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	188.00	$0.43126	$0.38977	$0.82103	$138
1999	169	$0.44420	$0.40146	$0.84566	$142
2000	169	$0.46762	$0.41365	$0.87105	$146
2001	169	$0.47129	$0.42891	$0.89716	$151
2002	169	$0.48539	$0.43859	$0.92407	$156
2003	169	$0.49995	$0.45185	$0.95179	$160
2004	169	$0.51495	$0.46540	$0.98036	$165
2005	169	$0.53040	$0.47936	$1.00976	$170
2006	169	$0.54631	$0.49374	$1.04005	$175
2007	169	$0.56270	$0.50856	$1.07126	$180
2008	169	$0.57958	$0.53381	$1.10339	$185
2009	169	$0.59696	$0.53953	$1.13649	$191
2010	169	$0.61487	$0.55571	$1.17059	$197
2011	169	$0.63332	$0.57239	$1.20571	$203
2012	169	$0.65232	$0.58956	$1.24188	$209
2013	169	$0.67189	$0.60724	$1.27913	$215
2014	169	$0.69205	$0.62546	$1.31751	$221
2015	169	$0.71281	$0.64422	$1.35703	$228
2016	169	$0.73419	$0.66356	$1.39774	$236
2017	169	$0.75622	$0.68346	$1.43968	$243

Table 2

Rim

Water

Year	Customer Charge/Bills	Annual Cust. Chg.	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1998	$8.00	$78	39.72%	$31
1999	$8.70	$85	39.72%	$33
2000	$8.80	$83	39.72%	$33
2001	$7.10	$85	39.72%	$34
2002	$7.20	$88	39.72%	$35
2003	$7.29	$91	39.72%	$36
2004	$7.78	$93	39.72%	$37
2005	$7.89	$96	39.72%	$38
2006	$8.33	$99	39.72%	$39
2007	$8.48	$102	39.72%	$40
2008	$8.74	$105	39.72%	$42
2009	$9.00	$108	39.72%	$43
2010	$9.27	$111	39.72%	$44
2011	$9.55	$115	39.72%	$46
2012	$9.83	$118	39.72%	$47
2013	$10.13	$122	39.72%	$48
2014	$10.43	$126	39.72%	$50
2015	$10.74	$129	39.72%	$51
2016	$11.06	$133	39.72%	$53
2017	$11.40	$137	39.72%	$54

Table 3

Rim

Water

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Svc
1998	0.00	0	364.00	208	7.57%	$589	$18
1999	0.00	0.00	371.00	187	7.57%	$588	$17
2000	0.00	0.00	368.00	188	7.57%	$647	$18
2001	0.00	0.00	345.00	181	7.57%	$628	$16
2002	0.00	0.00	332.00	173	7.57%	$605	$15
2003	0.00	0.00	318.00	169	7.57%	$484	$16
2004	0.00	0.00	306.00	157	7.57%	$463	$14
2005	0.00	0.00	293.00	149	7.57%	$442	$13
2006	0.00	0.00	280.00	141	7.57%	$421	$13
2007	0.00	0.00	267.00	133	7.57%	$400	$12
2008	0.00	0.00	254.00	125	7.57%	$379	$12
2009	0.00	0.00	241.00	117	7.57%	$358	$11
2010	0.00	0.00	228.00	109	7.57%	$337	$10
2011	0.00	0.00	215.00	101	7.57%	$316	$10
2012	0.00	0.00	202.00	93	7.57%	$295	$9
2013	0.00	0.00	188.00	85	7.57%	$274	$8
2014	0.00	0.00	176.00	77	7.57%	$253	$8
2015	0.00	0.00	163.00	69	7.57%	$232	$7
2016	0.00	0.00	150.00	61	7.57%	$211	$6
2017	0.00	0.00	137.00	54	7.57%	$191	$6

Table 4

Rim

Water

1.00	2.00	3.00	4.00	5.00	6.00	7.00	
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Customer Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main Odbl
1998	2	25	0.00	0	25	39.72%	$10
1999	2	26	0.00	0	26	39.72%	$10
2000	2	26	0.00	0	26	39.72%	$10
2001	2	27	0.00	0	27	39.72%	$11
2002	2	28	0.00	0	28	39.72%	$11
2003	2	28	0.00	0	28	39.72%	$11
2004	2	29	0.00	0	30	39.72%	$12
2005	2	31	0.00	0	31	39.72%	$12
2006	2	31	0.00	0	31	39.72%	$12
2007	2	32	0.00	0	32	39.72%	$13
2008	2	33	0.00	0	33	39.72%	$13
2009	2	34	0.00	0	34	39.72%	$14
2010	2	35	0.00	0	35	39.72%	$14
2011	2	36	0.00	0	36	39.72%	$14
2012	2	36	0.00	0	36	39.72%	$15
2013	2	38	0.00	0	38	39.72%	$15
2014	2	40	0.00	0	40	39.72%	$16
2015	2	41	0.00	0	41	39.72%	$16
2016	2	42	0.00	0	42	39.72%	$17
2017	2	44	0.00	0	44	39.72%	$17

Table 5

Rim

Water

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Therms Capacity Pressing & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	188	101	87	0.3250	0.0418	1.33	$62
1999	169	101	87	0.2318	0.0430	1.33	$54
2000	169	101	87	0.2387	0.0443	1.33	$56
2001	169	101	87	0.2459	0.0456	1.33	$57
2002	169	101	87	0.2533	0.0470	1.33	$59
2003	169	101	87	0.2609	0.0484	1.33	$61
2004	169	101	87	0.2687	0.0499	1.33	$62
2005	169	101	87	0.2768	0.0513	1.33	$64
2006	169	101	87	0.2851	0.0529	1.33	$66
2007	169	101	87	0.2936	0.0545	1.33	$68
2008	169	101	87	0.3024	0.0561	1.33	$70
2009	169	101	87	0.3115	0.0578	1.33	$72
2010	169	101	87	0.3209	0.0595	1.33	$75
2011	169	101	87	0.3305	0.0613	1.33	$77
2012	169	101	87	0.3404	0.0632	1.33	$79
2013	169	101	87	0.3506	0.0650	1.33	$82
2014	169	101	87	0.3611	0.0670	1.33	$84
2015	169	101	87	0.3720	0.0690	1.33	$87
2016	169	101	87	0.3831	0.0711	1.33	$89
2017	169	101	87	0.3946	0.0732	1.33	$92

Rate Impact Measure Test Data

All Costs in 1995 dollars. Analysis Start Year: 1995 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: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric

	$
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	177.0	0.0	177.0
3. Seasonal Rate			0.0
Total	177.0	0.0	177.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	41.84%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate 8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	0
2. Development Main	0
3. Service	384
4. Meter	205
Total Cust. Cost	$589
5. Utility Allowance	$330
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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

1	Consumed Conserved Displaced Gas Therms Table 1 2	Gas Customer Charge Table 2 3	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
1998	$145	$33	$0	$178	$19	$10	$60	$0	$378	$468
1999	$150	$34	$0	$184	$18	$11	$62	$0		$91
2000	$154	$35	$0	$189	$18	$11	$64	$0		$93
2001	$159	$36	$0	$195	$17	$11	$66	$0		$94
2002	$164	$37	$0	$201	$16	$12	$68	$0		$96
2003	$168	$38	$0	$206	$15	$12	$70	$0		$98
2004	$174	$39	$0	$213	$15	$12	$72	$0		$100
2005	$179	$40	$0	$219	$14	$13	$74	$0		$101
2006	$184	$41	$0	$225	$13	$13	$77	$0		$103
2007	$190	$43	$0	$233	$13	$14	$79	$0		$105
2008	$195	$44	$0	$239	$12	$14	$81	$0		$107
2009	$201	$45	$0	$246	$12	$14	$84	$0		$110
2010	$207	$47	$0	$254	$11	$15	$86	$0		$112
2011	$213	$48	$0	$261	$10	$15	$89	$0		$115
2012	$220	$49	$0	$269	$10	$16	$91	$0		$117
2013	$226	$51	$0	$277	$9	$16	$94	$0		$120
2014	$233	$52	$0	$285	$8	$17	$97	$0		$122
2015	$240	$54	$0	$294	$8	$17	$100	$0		$125
2016	$247	$56	$0	$303	$7	$18	$103	$0		$128
2017	$255	$57	$0	$312	$7	$18	$106	$0		$131

Present Value of Benefits	$2,069
Present Value of Costs	$1,305
Benefit/Cost Ratio	1.59

Table 1

Rim

Furnace

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	177	$0.43126	$0.38977	$0.82103	$145
1999	177	$0.44430	$0.40149	$0.84599	$150
2000	177	$0.46753	$0.41350	$0.87103	$154
2001	177	$0.47126	$0.42591	$0.89718	$159
2002	177	$0.46539	$0.43868	$0.90407	$160
2003	177	$0.46998	$0.45185	$0.92179	$163
2004	177	$0.51458	$0.46540	$0.98058	$174
2005	177	$0.53040	$0.47936	$1.00976	$179
2006	177	$0.54621	$0.49374	$1.04005	$184
2007	177	$0.54270	$0.50859	$1.07128	$190
2008	177	$0.57958	$0.52391	$1.10350	$195
2009	177	$0.59699	$0.53963	$1.13648	$201
2010	177	$0.61467	$0.55571	$1.17099	$207
2011	177	$0.63332	$0.57239	$1.20571	$213
2012	177	$0.65253	$0.58998	$1.24188	$220
2013	177	$0.67189	$0.60724	$1.27913	$226
2014	177	$0.69205	$0.62546	$1.31751	$233
2015	177	$0.71281	$0.64422	$1.35703	$240
2016	177	$0.73419	$0.66355	$1.39774	$247
2017	177	$0.75622	$0.68346	$1.43968	$255

Table 2

Rim

Furnace

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1998	$6.80	$76	41.84%	$32
1999	$6.70	$80	41.84%	$34
2000	$6.90	$83	41.84%	$35
2001	$7.10	$85	41.84%	$36
2002	$7.32	$88	41.84%	$37
2003	$7.54	$90	41.84%	$38
2004	$7.76	$93	41.84%	$39
2005	$7.98	$96	41.84%	$40
2006	$8.23	$99	41.84%	$41
2007	$8.48	$102	41.84%	$43
2008	$8.74	$105	41.84%	$44
2009	$9.00	$108	41.84%	$45
2010	$9.27	$111	41.84%	$47
2011	$9.55	$115	41.84%	$48
2012	$9.83	$118	41.84%	$49
2013	$10.13	$122	41.84%	$51
2014	$10.43	$126	41.84%	$52
2015	$10.74	$129	41.84%	$54
2016	$11.07	$133	41.84%	$56
2017	$11.40	$137	41.84%	$57

Table 3

Rim

Furnace

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Svc
1998	0	0	364	208	7.57%	$580	$18
1999	0	0	371	188	7.57%	$568	$18
2000	0	0	358	181	7.57%	$540	$18
2001	0	0	345	184	7.57%	$529	$17
2002	0	0	332	177	7.57%	$509	$16
2003	0	0	319	170	7.57%	$489	$15
2004	0	0	306	163	7.57%	$469	$15
2005	0	0	293	156	7.57%	$449	$14
2006	0	0	280	149	7.57%	$429	$13
2007	0	0	267	142	7.57%	$409	$13
2008	0	0	254	135	7.57%	$389	$12
2009	0	0	241	128	7.57%	$369	$12
2010	0	0	228	121	7.57%	$349	$11
2011	0	0	215	114	7.57%	$329	$10
2012	0	0	202	107	7.57%	$309	$10
2013	0	0	189	100	7.57%	$289	$9
2014	0	0	176	93	7.57%	$269	$8
2015	0	0	163	86	7.57%	$249	$8
2016	0	0	150	79	7.57%	$229	$7
2017	0	0	137	72	7.57%	$209	$7

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 Odist
1998	$3	$26	$0	$0	$26	41.84%	$10
1999	$3	$26	$0	$0	$26	41.84%	$11
2000	$3	$27	$0	$0	$27	41.84%	$11
2001	$3	$27	$0	$0	$27	41.84%	$11
2002	$3	$28	$0	$0	$28	41.84%	$12
2003	$3	$29	$0	$0	$29	41.84%	$12
2004	$3	$30	$0	$0	$30	41.84%	$12
2005	$3	$31	$0	$0	$31	41.84%	$13
2006	$3	$32	$0	$0	$32	41.84%	$13
2007	$3	$33	$0	$0	$33	41.84%	$14
2008	$3	$34	$0	$0	$34	41.84%	$14
2009	$3	$35	$0	$0	$35	41.84%	$14
2010	$3	$36	$0	$0	$36	41.84%	$15
2011	$3	$37	$0	$0	$37	41.84%	$15
2012	$3	$38	$0	$0	$38	41.84%	$16
2013	$3	$39	$0	$0	$39	41.84%	$16
2014	$3	$40	$0	$0	$40	41.84%	$17
2015	$3	$41	$0	$0	$41	41.84%	$17
2016	$3	$43	$0	$0	$43	41.84%	$18
2017	$3	$44	$0	$0	$44	41.84%	$18

Table 5

Rim

Furnace

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Therms Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	177	177	0	0.3260	0.0418	1.33	$80
1999	177	177	0	0.3316	0.0430	1.33	$82
2000	177	177	0	0.3387	0.0443	1.33	$84
2001	177	177	0	0.3459	0.0458	1.33	$86
2002	177	177	0	0.3535	0.0470	1.33	$88
2003	177	177	0	0.3609	0.0484	1.33	$70
2004	177	177	0	0.3687	0.0499	1.33	$72
2005	177	177	0	0.3769	0.0513	1.33	$74
2006	177	177	0	0.3851	0.0529	1.33	$77
2007	177	177	0	0.3936	0.0545	1.33	$79
2008	177	177	0	0.4024	0.0561	1.33	$81
2009	177	177	0	0.4116	0.0578	1.33	$84
2010	177	177	0	0.4209	0.0595	1.33	$86
2011	177	177	0	0.4305	0.0613	1.33	$89
2012	177	177	0	0.4404	0.0632	1.33	$91
2013	177	177	0	0.4506	0.0650	1.33	$94
2014	177	177	0	0.4611	0.0670	1.33	$97
2018	177	177	0	0.4720	0.0690	1.33	$100
2016	177	177	0	0.4831	0.0711	1.33	$103
2017	177	177	0	0.4946	0.0732	1.33	$106

Rate Impact Measure Test Data

All Costs In: 1998 Dollars | Analysis Start Year: 1998 | 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: $89

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric

	$
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	23.0	23.0	46.0
3. Seasonal Rate			0.0
Total	23.0	23.0	46.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.87%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	10.87%
15. Average Life	13

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	0
2. Development Main	0
3. Service	384
4. Meter	205
Total Cust. Cost	$589
5. Utility Allowance	$50
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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

1	Consumed Conserved Displaced Gas Therms Table 1 2	Gas Customer Charge Table 2 3	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
1998	$38	$8	$0	$46	$5	$3	$14	$0	$98	$119
1999	$39	$9	$0	$48	$5	$3	$14	$0		$22
2000	$40	$9	$0	$49	$5	$3	$15	$0		$22
2001	$41	$9	$0	$50	$4	$3	$15	$0		$23
2002	$43	$10	$0	$53	$4	$3	$16	$0		$23
2003	$44	$10	$0	$54	$4	$3	$16	$0		$23
2004	$45	$10	$0	$55	$4	$3	$17	$0		$24
2005	$46	$10	$0	$56	$4	$3	$17	$0		$24
2006	$48	$11	$0	$59	$4	$3	$18	$0		$25
2007	$49	$11	$0	$60	$3	$4	$18	$0		$25
2008	$51	$11	$0	$62	$3	$4	$19	$0		$26
2009	$52	$12	$0	$64	$3	$4	$19	$0		$26
2010	$54	$12	$0	$66	$3	$4	$20	$0		$27
2011	$55	$12	$0	$67	$3	$4	$21	$0		$27
2012	$57	$13	$0	$70	$3	$4	$21	$0		$28
2013	$59	$13	$0	$72	$2	$4	$22	$0		$28
2014	$61	$14	$0	$75	$2	$4	$22	$0		$29
2015	$62	$14	$0	$76	$2	$4	$23	$0		$30
2016	$64	$14	$0	$78	$2	$5	$24	$0		$30
2017	$66	$15	$0	$81	$2	$5	$25	$0		$31
			Present Value of Benefits	$537					Present Value Of Costs	$319
									Benefit/Cost Ratio	1.68

Table 1

Dryer

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	46	$0.43134	$0.38877	$0.82103	$38
1999	46	$0.44420	$0.40148	$0.84568	$39
2000	46	$0.46752	$0.41360	$0.87103	$40
2001	46	$0.47135	$0.42581	$0.89716	$41
2002	46	$0.46539	$0.43908	$0.82407	$43
2003	46	$0.46865	$0.46185	$0.86179	$44
2004	46	$0.21485	$0.46546	$0.88036	$46
2005	46	$0.53045	$0.47939	$1.00979	$46
2006	46	$0.54531	$0.48374	$1.04905	$48
2007	46	$0.56270	$0.50588	$1.07135	$49
2008	46	$0.57958	$0.52341	$1.10339	$51
2009	46	$0.59596	$0.53883	$1.13949	$52
2010	46	$0.61487	$0.55571	$1.17058	$54
2011	46	$0.63533	$0.57239	$1.20571	$55
2012	46	$0.65232	$0.58858	$1.24188	$57
2013	46	$0.67189	$0.60734	$1.27913	$59
2014	46	$0.69205	$0.62548	$1.31751	$61
2015	46	$0.71281	$0.64422	$1.35703	$62
2016	46	$0.73419	$0.66255	$1.39774	$64
2017	46	$0.75622	$0.68143	$1.43098	$66

Table 2

Dryer

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg
1998	6.60	$79	10.67%	$8
1999	6.70	$80	10.67%	$9
2000	6.80	$82	10.67%	$9
2001	7.10	$86	10.67%	$9
2002	7.33	$88	10.67%	$10
2003	7.54	$90	10.67%	$10
2004	7.76	$93	10.67%	$10
2005	7.99	$96	10.67%	$10
2006	8.23	$98	10.67%	$11
2007	8.42	$102	10.67%	$11
2008	8.74	$105	10.67%	$11
2009	9.00	$108	10.67%	$12
2010	9.27	$111	10.67%	$12
2011	9.55	$115	10.67%	$12
2012	9.83	$118	10.67%	$13
2013	10.13	$122	10.67%	$13
2014	10.43	$125	10.67%	$14
2016	10.74	$129	10.67%	$14
2016	11.07	$133	10.67%	$14
2017	11.40	$137	10.67%	$15

Table 3

Dryer

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Carrying Chg Mains & Srvc
1998			384	206	7.57%	$368	$6
1999			371	199	7.57%	$370	$6
2000			358	192	7.57%	$360	$6
2001			346	186	7.57%	$530	$4
2002			332	178	7.57%	$510	$4
2003			319	171	7.57%	$490	$-
2004			306	164	7.57%	$470	$4
2005			293	157	7.57%	$450	$4
2006			280	150	7.57%	$430	$4
2007			267	143	7.57%	$410	$3
2008			254	136	7.57%	$390	$3
2009			241	129	7.57%	$370	$3
2010			228	122	7.57%	$350	$3
2011			215	115	7.57%	$330	$3
2012			202	108	7.57%	$310	$3
2013			189	101	7.57%	$290	$2
2014			176	94	7.57%	$270	$2
2015			163	87	7.57%	$250	$2
2016			150	80	7.57%	$230	$2
2017			137	73	7.57%	$210	$2

Table 4

Dryer

Year	Adm. Cost	Annual Adm. Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
1998	$2	$26	10.67%	$3
1999	$2	$26	10.67%	$3
2000	$2	$27	10.67%	$3
2001	$2	$27	10.67%	$3
2002	$2	$28	10.67%	$3
2003	$2	$29	10.67%	$3
2004	$2	$30	10.67%	$3
2005	$2	$31	10.67%	$3
2006	$2	$32	10.67%	$3
2007	$2	$33	10.67%	$4
2008	$2	$34	10.67%	$4
2009	$2	$35	10.67%	$4
2010	$2	$36	10.67%	$4
2011	$2	$37	10.67%	$4
2012	$2	$38	10.67%	$4
2013	$2	$39	10.67%	$4
2014	$2	$40	10.67%	$4
2015	$2	$41	10.67%	$4
2016	$2	$43	10.67%	$5
2017	$2	$44	10.67%	$5

Table 5

Dryer

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	46	23	23	0.2260	0.0418	1.33	$14
1999	46	23	23	0.2318	0.0430	1.33	$14
2000	46	23	23	0.2387	0.0443	1.33	$15
2001	46	23	23	0.3458	0.0458	1.33	$16
2002	46	23	23	0.2533	0.0470	1.33	$16
2003	46	23	23	0.2609	0.0484	1.33	$16
2004	46	23	23	0.2687	0.0499	1.33	$17
2005	46	23	23	0.2768	0.0513	1.33	$17
2006	46	23	23	0.2851	0.0529	1.33	$18
2007	46	23	23	0.2936	0.0545	1.33	$18
2008	46	23	23	0.3024	0.0561	1.33	$19
2009	46	23	23	0.3115	0.0578	1.33	$19
2010	46	23	23	0.3208	0.0595	1.33	$20
2011	46	23	23	0.3305	0.0613	1.33	$21
2012	46	23	23	0.3404	0.0632	1.33	$21
2013	46	23	23	0.3508	0.0650	1.33	$22
2014	46	23	23	0.3611	0.0670	1.33	$22
2015	46	23	23	0.3720	0.0690	1.33	$23
2016	46	23	23	0.3831	0.0711	1.33	$24
2017	46	23	23	0.3946	0.0732	1.33	$25

Rate Impact Measure Test Data

All Costs in 1998 Dollars Analysis Start Year: 1998 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: Chesapeake Utilities Corporation Electric Utility: Tampa Electric

	$
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	16.0	16.0	32.0
3. Seasonal Rate			0.0
Total	16.0	16.0	32.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	7.57%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate 8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	0
2. Development Main	0
3. Service	384
4. Meter	205
Total Cust. Cost	$589
5. Utility Allowance	$50
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost
1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	0.08	0.08	0.15
2. Consumed New			
3. Consumed Existing			
4. Displaced			

Rate Impact Measure Test Data

Range

1	Consumed Conserved Displaced Gas Therms Table 1 2	Gas Customer Charge Table 2 3	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 9	Program & Allowance Cost 10	Total Columns 6 thru 10 11
1998	$26	$6	$0	$32	$3	$2	$10	$0	$98	$113
1999	$27	$6	$0	$33	$3	$2	$10	$0		$15
2000	$28	$6	$0	$34	$3	$2	$10	$0		$16
2001	$29	$6	$0	$35	$3	$2	$11	$0		$16
2002	$30	$7	$0	$37	$3	$2	$11	$0		$16
2003	$30	$7	$0	$37	$3	$2	$11	$0		$16
2004	$31	$7	$0	$38	$3	$2	$12	$0		$17
2005	$32	$7	$0	$39	$3	$2	$12	$0		$17
2006	$33	$7	$0	$40	$2	$2	$12	$0		$17
2007	$34	$8	$0	$42	$2	$2	$13	$0		$18
2008	$35	$8	$0	$43	$2	$3	$13	$0		$18
2009	$36	$8	$0	$44	$2	$3	$13	$0		$18
2010	$37	$8	$0	$45	$2	$3	$14	$0		$19
2011	$39	$9	$0	$48	$2	$3	$14	$0		$19
2012	$40	$9	$0	$49	$2	$3	$15	$0		$19
2013	$41	$9	$0	$50	$2	$3	$15	$0		$20
2014	$42	$9	$0	$51	$2	$3	$16	$0		$20
2015	$43	$10	$0	$53	$1	$3	$16	$0		$21
2016	$45	$10	$0	$55	$1	$3	$17	$0		$21
2017	$46	$10	$0	$56	$1	$3	$17	$0		$22
			Present Value Of Benefits	$360					Present Value Of Costs	$244

Benefit/Cost Ratio	1.48

Table 1

Range

Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	32	$0.43138	$0.39207	$0.82135	$26
1999	33	$0.44420	$0.40148	$0.84568	$27
2000	32	$0.45752	$0.41350	$0.87103	$28
2001	32	$0.47126	$0.42591	$0.89716	$29
2002	32	$0.48539	$0.43869	$0.92407	$30
2003	32	$0.49995	$0.45185	$0.95179	$30
2004	32	$0.51495	$0.46540	$0.98034	$31
2005	32	$0.53040	$0.47936	$1.00976	$32
2006	32	$0.54631	$0.49374	$1.04005	$33
2007	32	$0.56270	$0.50856	$1.07126	$34
2008	32	$0.57958	$0.52381	$1.10338	$35
2009	32	$0.59696	$0.53953	$1.13648	$36
2010	32	$0.61487	$0.55571	$1.17058	$37
2011	32	$0.63332	$0.57239	$1.20571	$38
2012	32	$0.65232	$0.58956	$1.24188	$40
2013	32	$0.67189	$0.60724	$1.27913	$41
2014	32	$0.69205	$0.62546	$1.31751	$42
2015	32	$0.71281	$0.64422	$1.35703	$43
2016	32	$0.73419	$0.66355	$1.39774	$45
2017	32	$0.75622	$0.68346	$1.43968	$46

Table 2

Range

Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1998	6.50	$78	7.57%	$6
1999	6.70	$80	7.57%	$6
2000	6.90	$83	7.57%	$6
2001	7.10	$85	7.57%	$6
2002	7.32	$88	7.57%	$7
2003	7.54	$90	7.57%	$7
2004	7.76	$93	7.57%	$7
2005	7.99	$96	7.57%	$7
2006	8.23	$99	7.57%	$7
2007	8.48	$102	7.57%	$8
2008	8.74	$105	7.57%	$8
2009	9.00	$108	7.57%	$8
2010	9.27	$111	7.57%	$8
2011	9.55	$115	7.57%	$9
2012	9.83	$118	7.57%	$9
2013	10.13	$122	7.57%	$9
2014	10.43	$125	7.57%	$9
2015	10.74	$129	7.57%	$10
2016	11.07	$133	7.57%	$10
2017	11.40	$137	7.57%	$10

Table 3

Range

Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Data	Customer Cost	Carrying Chg Mains & Svc
1998			364	205	7.57%	$588	63
1999			371	188	7.57%	$575	63
2000			358	182	7.57%	$560	63
2001			345	185	7.57%	$530	63
2002			332	178	7.57%	$515	63
2003			319	171	7.57%	$490	63
2004			306	164	7.57%	$470	63
2005			293	157	7.57%	$450	63
2006			280	150	7.57%	$430	62
2007			267	143	7.57%	$410	62
2008			254	136	7.57%	$390	62
2009			241	129	7.57%	$370	62
2010			228	122	7.57%	$350	62
2011			215	115	7.57%	$330	62
2012			202	108	7.57%	$310	62
2013			189	101	7.57%	$290	62
2014			176	94	7.57%	$270	62
2015			163	87	7.57%	$250	61
2016			150	80	7.57%	$230	61
2017			137	73	7.57%	$210	61

Table 4

Range

Year	Adm. Cost	Annual Adm. Cost	Ratio Therms To Total Consumed	New Customer Adm. & Mark. O&M
1998	$53	$636	7.57%	$3
1999	$53	$636	7.57%	$3
2000	$53	$637	7.57%	$3
2001	$53	$637	7.57%	$3
2002	$53	$638	7.57%	$3
2003	$53	$638	7.57%	$3
2004	$53	$638	7.57%	$3
2005	$53	$531	7.57%	$3
2006	$53	$532	7.57%	$3
2007	$53	$533	7.57%	$3
2008	$53	$534	7.57%	$3
2009	$53	$535	7.57%	$3
2010	$53	$535	7.57%	$3
2011	$53	$537	7.57%	$3
2012	$53	$538	7.57%	$3
2013	$53	$539	7.57%	$3
2014	$53	$540	7.57%	$3
2015	$53	$541	7.57%	$3
2016	$53	$543	7.57%	$3
2017	$53	$544	7.57%	$3

Table 5

Range

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Pooling & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	32	18	18	$0.2330	$0.0418	1.33	$10
1999	33	18	18	$0.2318	$0.0430	1.33	$10
2000	32	18	18	$0.2307	$0.0443	1.33	$10
2001	32	18	18	$0.2458	$0.0456	1.33	$11
2002	32	18	18	$0.2533	$0.0470	1.33	$11
2003	32	18	18	$0.2609	$0.0484	1.33	$11
2004	32	18	18	$0.2687	$0.0498	1.33	$12
2005	32	18	18	$0.2768	$0.0513	1.33	$12
2006	32	18	18	$0.2851	$0.0528	1.33	$12
2007	32	18	18	$0.2936	$0.0543	1.33	$13
2008	32	18	18	$0.3024	$0.0561	1.33	$13
2009	32	18	18	$0.3115	$0.0578	1.33	$13
2010	32	18	18	$0.3208	$0.0595	1.33	$14
2011	32	18	18	$0.3305	$0.0613	1.33	$14
2012	32	18	18	$0.3404	$0.0632	1.33	$15
2013	32	18	18	$0.3508	$0.0650	1.33	$15
2014	32	18	18	$0.3611	$0.0670	1.33	$16
2015	32	18	18	$0.3720	$0.0690	1.33	$16
2016	32	18	18	$0.3831	$0.0711	1.33	$17
2017	32	18	18	$0.3946	$0.0732	1.33	$17

Participants Cost Effectiveness Test Data

All Costs in: 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Appliance Replacement

	Program	Gas Rate Number
Gas Measure:	Water Heater	40 Gallons
Allowance:	330	
Gas Utility:	Chesapeake Utilities Corporation	

I. Installed Cost Data

	$
1. Equipment	222
2. Installation	482
Total Cust. Cost	704
3. Utility Rebate	330
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101	67	168
3. Seasonal Rate			0
Total	101	67	168

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

Gas Rates	Rate
6. Base, Winter	0.43126
7. Base, Summer	0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	6.5
14. Ratio of Therms Consumed to Total	39.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate: 8.65%

Electric Rate Number

Alternate Options:	Electric Resistance Water Heater	50 Gallons
Alt FuelType:	Electric	
Electric Utility:	Tampa Electric Co.	

IV. Installed Cost Data

	$
1. Equipment	233
2. Installation	180
Total Cust. Cost	413
3. Utility Allowance	0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3222	3222
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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		13.67%
15. Customer Chg		8.85

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	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	267	0	143	9	7	35	330	0	421	413	704	291
1999	275	0	147	9	7	36	0	0	89	0	0	0
2000	283	0	152	10	7	37	0	0	91	0	0	0
2001	291	0	156	10	8	38	0	0	94	0	0	0
2002	300	0	161	10	8	40	0	0	97	0	0	0
2003	309	0	166	10	8	41	0	0	100	0	0	0
2004	318	0	171	11	8	42	0	0	103	0	0	0
2005	328	0	176	11	9	43	0	0	106	0	0	0
2006	338	0	181	11	9	45	0	0	109	0	0	0
2007	348	0	186	12	9	46	0	0	112	0	0	0
2008	358	0	192	12	9	47	0	0	116	0	0	0
2009	369	0	198	12	10	49	0	0	119	0	0	0
2010	380	0	204	13	10	50	0	0	123	0	0	0
2011	392	0	210	13	10	52	0	0	127	0	325	325
2012	403	0	216	14	11	53	0	0	130	0	0	0
2013	415	0	223	14	11	55	0	0	134	363	0	-363
2014	428	0	229	14	11	57	0	0	138	0	0	0
2015	441	0	236	15	12	58	0	0	142	0	0	0
2016	454	0	243	15	12	60	0	0	147	0	0	0
2017	468	0	250	16	12	62	0	0	151	0	0	0

Present Value of Benefits	$1,308	Present Value of Costs	$273

Benefit/Cost Ratio	4.79

TABLE 1 — Part: Electric KWH Cost — Water

1	2	3	4	5=2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	0.0738	3223	13.67%	$267
1999	0.0760	3223	13.67%	$275
2000	0.0772	3223	13.67%	$280
2001	0.0796	3223	13.67%	$291
2002	0.0818	3223	13.67%	$300
2003	0.0844	3223	13.67%	$309
2004	0.0868	3223	13.67%	$318
2005	0.0895	3223	13.67%	$328
2006	0.0923	3223	13.67%	$338
2007	0.0950	3223	13.67%	$348
2008	0.0978	3223	13.67%	$358
2009	0.1008	3223	13.67%	$369
2010	0.1038	3223	13.67%	$380
2011	0.1069	3223	13.67%	$392
2012	0.1101	3223	13.67%	$403
2013	0.1134	3223	13.67%	$415
2014	0.1168	3223	13.67%	$428
2015	0.1203	3223	13.67%	$441
2016	0.1239	3223	13.67%	$454
2017	0.1277	3223	13.67%	$468

TABLE 2 — Consumed-Displaced-Conserved - Therms — Water

1	2	3	4	5=2*4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
1998	0.6210	168	13.67%	$107
1999	0.6457	168	13.67%	$191
2000	0.6710	168	13.67%	$198
2001	0.6972	168	13.67%	$171
2002	0.6241	168	13.67%	$178
2003	0.6518	168	13.67%	$182
2004	0.6803	168	13.67%	$187
2005	1.0099	168	13.67%	$193
2006	1.0401	168	13.67%	$191
2007	1.0713	168	13.67%	$205
2008	1.1034	168	13.67%	$211
2009	1.1365	168	13.67%	$217
2010	1.1709	168	13.67%	$224
2011	1.2067	168	13.67%	$230
2012	1.2418	168	13.67%	$237
2013	1.2791	168	13.67%	$244
2014	1.3178	168	13.67%	$252
2015	1.3570	168	13.67%	$259
2016	1.3977	168	13.67%	$267
2017	1.4397	168	13.67%	$275

TABLE 3 — Gas Customer Charge — Water

1	2	3	4	5	6	7=3/5*6
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Wtr. Htr Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	6.50	78.00	168	423	39.72%	36
1999	6.70	80.34	168	423	39.72%	39
2000	6.90	82.75	168	423	39.72%	37
2001	7.10	85.23	168	423	39.72%	38
2002	7.32	87.79	168	423	39.72%	40
2003	7.54	90.42	168	423	39.72%	41
2004	7.76	93.14	168	423	39.72%	42
2005	7.99	95.93	168	423	39.72%	43
2006	8.23	98.81	168	423	39.72%	45
2007	8.48	101.77	168	423	39.72%	46
2008	8.74	104.83	168	423	39.72%	47
2009	9.00	107.97	168	423	39.72%	49
2010	9.27	111.21	168	423	39.72%	50
2011	9.55	114.55	168	423	39.72%	52
2012	9.83	117.98	168	423	39.72%	53
2013	10.13	121.52	168	423	39.72%	55
2014	10.43	125.17	168	423	39.72%	57
2015	10.74	128.93	168	423	39.72%	58
2016	11.07	132.79	168	423	39.72%	60
2017	11.40	136.77	168	423	39.72%	62

Participants Cost Effectiveness Test Data

All Costs in 1996 dollars. Analysis Start Year 1996 Number of Years 20

Gas Program: Residential Appliance Replacement Program — Gas Rate Number

Gas Measure: Furnace

Allowance: 200

Gas Utility: Chesapeake Utilities Corporation

Electric Rate Number

Alternate Option: Electric Resistance Furnace

Alt FuelType: Electric

Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	1480
2. Installation	579
Total Cust. Cost	2029
3. Utility Rebate	330
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	177	0	177
3. Seasonal Rate			0
Total	177	0	177

4. Electric Consumption in KWH	
5. O&M (excluding energy)	14

Gas Rates	Rate
6. Base, Winter	0.43126
7. Base, Summer	0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	6.50
14. Ratio of Therms Consumed to Total	41.84%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	543
2. Installation	616
Total Cust. Cost	$1,159
3. Utility Allowance	0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1	1
2. Annual KWH	4042	4042
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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	16
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	13.67%
15.Customer Chg	8.85

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	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	334	0	165	9	14	37	330	0	457	1159	2039	880
1999	344	0	155	9	14	38	0	0	119	0	0	0
2000	355	0	160	10	15	39	0	0	123	0	0	0
2001	365	0	164	10	15	41	0	0	127	0	0	0
2002	376	0	169	10	16	42	0	0	131	0	0	0
2003	388	0	174	10	16	43	0	0	135	0	0	0
2004	399	0	180	11	17	44	0	0	139	0	0	0
2005	411	0	185	11	17	46	0	0	143	0	0	0
2006	424	0	191	11	18	47	0	0	147	0	0	0
2007	436	0	196	12	18	48	0	0	151	0	0	0
2008	449	0	202	12	19	50	0	0	156	0	0	0
2009	463	0	208	12	19	51	0	0	161	0	0	0
2010	477	0	215	13	20	53	0	0	165	0	0	0
2011	491	0	221	13	21	54	0	0	170	0	0	0
2012	506	0	228	14	21	56	0	0	175	0	0	0
2013	521	0	234	14	22	58	0	0	180	0	0	0
2014	537	0	241	14	22	60	0	0	186	0	0	0
2015	553	0	249	15	23	61	0	0	192	897	0	-897
2016	569	0	256	15	24	63	0	0	197	0	0	0
2017	586	0	264	16	25	65	0	0	203	0	0	0

Present Value of Benefits	$1,662	Present Value of Costs	$608
Benefit/Cost Ratio	2.73		

TABLE 1 Electric KWH Cost — Furnace

1	2	3	4	2*3*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	0.0728	4042	13.67%	334
1999	0.0750	4042	13.67%	344
2000	0.0772	4042	13.67%	355
2001	0.0795	4042	13.67%	365
2002	0.0819	4042	13.67%	376
2003	0.0844	4042	13.67%	388
2004	0.0869	4042	13.67%	399
2005	0.0895	4042	13.67%	411
2006	0.0922	4042	13.67%	424
2007	0.0950	4042	13.67%	436
2008	0.0978	4042	13.67%	449
2009	0.1008	4042	13.67%	463
2010	0.1038	4042	13.67%	477
2011	0.1069	4042	13.67%	491
2012	0.1101	4042	13.67%	506
2013	0.1134	4042	13.67%	521
2014	0.1168	4042	13.67%	537
2015	0.1203	4042	13.67%	553
2016	0.1239	4042	13.67%	569
2017	0.1276	4042	13.67%	586

TABLE 2 Consumed-Dispatch ed-Conserved - Therms — Furnace

1	2	3	4	2*3*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1998	0.8210	177	13.67%	165
1999	0.8457	177	13.67%	170
2000	0.8710	177	13.67%	175
2001	0.8972	177	13.67%	181
2002	0.9241	177	13.67%	186
2003	0.9518	177	13.67%	191
2004	0.9803	177	13.67%	197
2005	1.0098	177	13.67%	203
2006	1.0401	177	13.67%	209
2007	1.0713	177	13.67%	216
2008	1.1034	177	13.67%	222
2009	1.1365	177	13.67%	229
2010	1.1706	177	13.67%	236
2011	1.2057	177	13.67%	243
2012	1.2419	177	13.67%	250
2013	1.2791	177	13.67%	257
2014	1.3175	177	13.67%	265
2015	1.3570	177	13.67%	273
2016	1.3977	177	13.67%	281
2017	1.4397	177	13.67%	290

TABLE 3 Gas Customer Charge — Furnace

1	2	3	4	5	6	3*6+13.67%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Furnace Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	6.50	78.00	177	423	41.84%	37
1999	6.70	80.34	177	423	41.84%	38
2000	6.90	82.75	177	423	41.84%	39
2001	7.10	85.23	177	423	41.84%	41
2002	7.32	87.79	177	423	41.84%	42
2003	7.54	90.42	177	423	41.84%	43
2004	7.76	93.14	177	423	41.84%	44
2005	7.99	95.93	177	423	41.84%	46
2006	8.23	98.81	177	423	41.84%	47
2007	8.48	101.77	177	423	41.84%	48
2008	8.74	104.83	177	423	41.84%	50
2009	9.00	107.97	177	423	41.84%	51
2010	9.27	111.21	177	423	41.84%	53
2011	9.55	114.55	177	423	41.84%	54
2012	9.83	117.98	177	423	41.84%	56
2013	10.13	121.52	177	423	41.84%	58
2014	10.43	125.17	177	423	41.84%	60
2015	10.74	128.92	177	423	41.84%	61
2016	11.07	132.79	177	423	41.84%	63
2017	11.40	136.77	177	423	41.84%	65

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

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

Gas Measure: Dryer — Alternate Option: Dryer

Alt Fuel Type: Electric

Allowance: $0

Gas Utility: Chesapeake Utilities Corporation — Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	400
2. Installation	180
Total Cust. Cost	580
3. Utility Rebate	50
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	23	23	46
3. Seasonal Rate			0
Total	23	23	46

4. Electric Consumption in KWH	
5. O&M (excluding energy)	10

Gas Rates	Rate
6. Base, Winter	0.43126
7. Base, Summer	0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	6.50
14. Ratio of Therms Consumed to Total	10.87%
15. Average Life	13

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	350
2. Installation	107
Total Cust. Cost	$457
3. Utility Allowance	0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1	1
2. Annual KWH	985	985
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	0	0

	Winter	Summer
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	0.0728
12. Electric Rate per KW, Winter	0
13. Electric Rate per KW, Summer	0
14. Electric Taxes & Fees	13.67%
15. Customer Chg	8.85

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	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	82	0	43	14	10	10	50	0	83	457	580	123
1999	84	0	44	14	10	10	0	0	34	0	0	0
2000	86	0	46	15	11	10	0	0	35	0	0	0
2001	89	0	47	15	11	11	0	0	36	0	0	0
2002	92	0	48	16	11	11	0	0	37	0	0	0
2003	94	0	50	16	12	11	0	0	38	0	0	0
2004	97	0	51	17	12	12	0	0	39	0	0	0
2005	100	0	53	17	12	12	0	0	41	0	0	0
2006	103	0	54	18	13	12	0	0	42	0	0	0
2007	106	0	56	18	13	13	0	0	43	0	0	0
2008	110	0	58	19	13	13	0	0	44	0	0	0
2009	113	0	59	19	14	13	0	0	46	0	0	0
2010	116	0	61	20	14	14	0	0	47	0	0	0
2011	120	0	63	21	15	14	0	0	48	0	0	0
2012	123	0	65	21	15	15	0	0	50	529	605	76
2013	127	0	67	22	16	15	0	0	51	0	0	0
2014	131	0	69	22	16	15	0	0	53	0	0	0
2015	135	0	71	23	17	16	0	0	54	0	0	0
2016	139	0	73	24	17	16	0	0	56	0	0	0
2017	143	0	75	25	18	17	0	0	58	0	0	0
								Present Value of Benefits	$429		Present Value of Costs	$135
											Benefit/Cost Ratio	3.17

TABLE 1 Electric KWh Cost Dryer

1	2	3	4	2*3*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	0.0728	865	13.67%	71.50
1999	0.0750	865	13.67%	73.65
2000	0.0772	865	13.67%	75.47
2001	0.0795	865	13.67%	78.01
2002	0.0819	865	13.67%	71.73
2003	0.0844	865	13.67%	84.49
2004	0.0869	865	13.67%	87.32
2005	0.0895	865	13.67%	100.34
2006	0.0922	865	13.67%	103.35
2007	0.0950	865	13.67%	106.35
2008	0.0978	865	13.67%	109.54
2009	0.1008	865	13.67%	113.02
2010	0.1038	865	13.67%	116.21
2011	0.1069	865	13.67%	119.69
2012	0.1101	865	13.67%	123.38
2013	0.1134	865	13.67%	126.66
2014	0.1168	865	13.67%	130.79
2015	0.1203	865	13.67%	134.72
2016	0.1239	865	13.67%	138.76
2017	0.1276	865	13.67%	142.92

TABLE 2 Consumed-Displaced-Conserved - Therms Dryer

1	2	3	4	2*3*4
Year	Therm Cost	Annual THERMS	Tax Fees	Gas Cost
1998	0.821023	46	13.67%	42.83
1999	0.846888	46	13.67%	44.22
2000	0.871613	46	13.67%	45.54
2001	0.897716	46	13.67%	46.91
2002	0.924407	46	13.67%	48.32
2003	0.951779	46	13.67%	49.77
2004	0.980035	46	13.67%	51.26
2005	1.009079	46	13.67%	52.80
2006	1.040035	46	13.67%	54.39
2007	1.071135	46	13.67%	56.01
2008	1.103359	46	13.67%	57.69
2009	1.136949	46	13.67%	59.43
2010	1.170959	46	13.67%	61.21
2011	1.205871	46	13.67%	63.04
2012	1.241688	46	13.67%	64.94
2013	1.279913	46	13.67%	66.88
2014	1.317751	46	13.67%	68.89
2015	1.357703	46	13.67%	70.98
2016	1.398774	46	13.67%	73.09
2017	1.439988	46	13.67%	75.26

TABLE 3 Gas Customer Charge Dryer

1	2	3	4	5	6	3*5*6=13.67%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Wtr. Htr Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	6.50	78.00	46	423	10.87%	8.64
1999	6.70	80.34	46	423	10.87%	8.93
2000	6.90	82.75	46	423	10.87%	10.33
2001	7.10	85.23	46	423	10.87%	10.64
2002	7.32	87.79	46	423	10.87%	10.95
2003	7.54	90.42	46	423	10.87%	11.18
2004	7.76	93.14	46	423	10.87%	11.51
2005	7.99	95.93	46	423	10.87%	11.86
2006	8.23	98.81	46	423	10.87%	12.21
2007	8.48	101.77	46	423	10.87%	12.58
2008	8.74	104.83	46	423	10.87%	12.96
2009	9.00	107.97	46	423	10.87%	13.35
2010	9.27	111.21	46	423	10.87%	13.75
2011	9.55	114.56	46	423	10.87%	14.16
2012	9.83	117.98	46	423	10.87%	14.58
2013	10.13	121.52	46	423	10.87%	15.02
2014	10.43	125.17	46	423	10.87%	15.47
2015	10.74	128.92	46	423	10.87%	15.94
2016	11.07	132.79	46	423	10.87%	16.41
2017	11.40	136.77	46	423	10.87%	16.91

Participants Cost Effectiveness Test Data

All Costs in: 1998 dollars. Analysis Start Year: 1998 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: $89

Gas Utility: Chesapeake Utilities Corporation
Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$600
2. Installation	$162
Total Cust. Cost	$762
3. Utility Rebate	$50
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	16.00	16.00	32.00
3. Seasonal Rate			0.00
Total	16.00	16.00	32.00

4. Electric Consumption in KWH	
5. O&M (excluding energy)	8.00

Gas Rates	Rate
6. Base, Winter	0.43126
7. Base, Summer	0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	6.50
14. Ratio of Therms Consumed to Total	7.57%
15. Average Life	19.00

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	500
2. Installation	107
Total Cust. Cost	$607
3. Utility Allowance	0.00
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	617.00	687.00
3. Annual Oil Gallons	0.00	0.00
4. Annual Gas Therm	0.00	0.00

	Winter	Summer
5. Diversified KW		
6. Billing KW		
7. O&M (excluding energy)		12.00
8. Monthly Utility Incentive		0.00
9. Average Life in Yrs		19.00
10. Existing Remaining Life in Yrs		0.00
11. Electric Rate per KWH		0.0728
12. Electric Rate per KW, Winter		0.00
13. Electric Rate per KW, Summer		0.00
14. Electric Taxes & Fees		13.67%
15. Customer Chg		8.85

VI. Therms Displaced

1. Energy Factor	1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.00	0.00

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
1998	57	0	30	12	8	7	50	0	74	607	762	155
1999	59	0	31	12	8	7	0	0	25	0	0	0
2000	60	0	32	13	8	7	0	0	26	0	0	0
2001	62	0	33	13	9	7	0	0	27	0	0	0
2002	64	0	34	14	9	8	0	0	27	0	0	0
2003	66	0	35	14	9	8	0	0	28	0	0	0
2004	68	0	36	14	10	8	0	0	29	0	0	0
2005	70	0	37	15	10	8	0	0	30	0	0	0
2006	72	0	38	15	10	8	0	0	31	0	0	0
2007	74	0	39	16	10	9	0	0	32	0	0	0
2008	76	0	40	16	11	9	0	0	33	0	0	0
2009	79	0	41	17	11	9	0	0	34	0	0	0
2010	81	0	43	17	11	10	0	0	35	0	0	0
2011	83	0	44	18	12	10	0	0	36	0	0	0
2012	86	0	45	18	12	10	0	0	37	0	0	0
2013	89	0	47	19	12	10	0	0	38	0	0	0
2014	91	0	48	19	13	11	0	0	39	0	0	0
2015	94	0	49	20	13	11	0	0	40	0	0	0
2016	97	0	51	20	14	11	0	0	41	0	0	0
2017	100	0	52	21	14	12	0	0	43	0	0	0
								Present Value of Benefits	$328		Present Value of Costs	$143
											Benefit/Cost Ratio	2.30

TABLE 1 Electric KW Cost Range

1	2	3	4	2*2*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	0.0728	667	13.67%	56.66
1999	0.0750	667	13.67%	58.55
2000	0.0772	667	13.67%	60.31
2001	0.0795	667	13.67%	62.12
2002	0.0819	667	13.67%	63.96
2003	0.0844	667	13.67%	65.90
2004	0.0869	667	13.67%	67.84
2005	0.0895	667	13.67%	69.91
2006	0.0922	667	13.67%	72.01
2007	0.0950	667	13.67%	74.17
2008	0.0979	667	13.67%	76.40
2009	0.1008	667	13.67%	78.69
2010	0.1038	667	13.67%	81.05
2011	0.1069	667	13.67%	83.48
2012	0.1101	667	13.67%	85.99
2013	0.1134	667	13.67%	88.57
2014	0.1168	667	13.67%	91.22
2015	0.1203	667	13.67%	93.96
2016	0.1239	667	13.67%	96.78
2017	0.1276	667	13.67%	99.68

TABLE 2 Consumed-Displaced-Conserved - Therms Range

1	2	3	4	2*2*4
Year	Therm Cost	Annual THERMS	Tax Fees	C...s Cost
1998	0.821027	32	13.67%	29.88
1999	0.846658	32	13.67%	30.79
2000	0.871027	32	13.67%	31.68
2001	0.897158	32	13.67%	32.63
2002	0.924073	32	13.67%	33.61
2003	0.951795	32	13.67%	34.62
2004	0.980349	32	13.67%	35.66
2005	1.009759	32	13.67%	36.73
2006	1.040052	32	13.67%	37.83
2007	1.071254	32	13.67%	38.97
2008	1.103391	32	13.67%	40.14
2009	1.136493	32	13.67%	41.34
2010	1.170588	32	13.67%	42.58
2011	1.205706	32	13.67%	43.86
2012	1.241877	32	13.67%	45.17
2013	1.279133	32	13.67%	46.53
2014	1.317507	32	13.67%	47.92
2015	1.357032	32	13.67%	49.36
2016	1.397743	32	13.67%	50.84
2017	1.439675	32	13.67%	52.37

TABLE 3 Gas Customer Charge Range

1	2	3	4	5	6	3*6+13.67%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Range Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	6.50	78.00	32	423	7.57%	8.71
1999	6.75	80.34	32	423	7.57%	8.91
2000	6.99	82.75	32	423	7.57%	9.13
2001	7.19	85.23	32	423	7.57%	9.33
2002	7.32	87.79	32	423	7.57%	9.56
2003	7.84	90.42	32	423	7.57%	9.78
2004	7.78	93.14	32	423	7.57%	10.01
2005	7.99	95.93	32	423	7.57%	10.25
2006	8.23	98.81	32	423	7.57%	10.50
2007	8.48	101.77	32	423	7.57%	10.75
2008	8.74	104.83	32	423	7.57%	11.01
2009	9.00	107.97	32	423	7.57%	11.28
2010	9.27	111.21	32	423	7.57%	11.56
2011	9.55	114.56	32	423	7.57%	11.85
2012	9.83	117.99	32	423	7.57%	12.15
2013	10.13	121.52	32	423	7.57%	12.46
2014	10.43	125.17	32	423	7.57%	12.78
2016	10.74	128.93	32	423	7.57%	13.09
2016	11.07	132.79	32	423	7.57%	13.42
2017	11.40	136.77	32	423	7.57%	13.76

Florida Division of Chesapeake Utilities
ENERGY CONSERVATION PROGRAM ANALYSIS
Summary of Cost-Effectiveness Ratios

Residential Propane Distribution Program

Installed Appliances	Incentive Amount ($)	Participants B/C Ratio	Rim B/C Ratio
Water Heater	275	132.76	1.66
Furnace	275	4.84	1.60
Clothes Dryer Outlet	75	14.96	1.53
Range	75	7.60	1.33

Rate Impact Measure Test Data

All Costs in 1998 dollars | Analysis Start Year: 1998 | Number of Years: 20

Gas Program: Residential Propane Distribution 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: $278

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric Co.

II. Operating Data

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

1. Energy Factor	0.56

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101.0	67.0	168.0
3. Seasonal Rate			0.0
Total	101.0	67.0	168.0

Gas Rates	Rate
6. Base, Winter	$0.43128
7. Base, Summer	$0.43128
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	39.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$275
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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

Water

1	2 Consumed Conserved Displaced Gas Therms Table 1 $	3 Gas Customer Charge Table 2 $	4 Total Columns 2 thru 3 $	5 Carrying Chg. On Main, Svc. & Meter Table 3 $	6 New Customer Admin. & Facilities O&M Table 4 $	7 Gas Supply Cost Table 5 $	8 Program & Allowance Cost $	9 Total Columns 5 thru 8 $
1	138	31	169	22	11	52	323	408
2	142	32	174	21	11	54		86
3	146	33	179	20	11	56		87
4	151	34	185	20	12	57		88
5	155	35	190	19	12	59		90
6	160	36	196	18	12	61		91
7	165	37	202	17	13	62		92
8	170	38	208	16	13	64		94
9	175	39	214	16	13	66		95
10	180	40	220	15	13	68		97
11	185	42	227	14	14	70		98
12	191	43	234	13	14	72		100
13	197	44	241	13	15	75		102
14	203	45	248	12	15	77		103
15	209	47	256	11	16	79		106
16	215	48	263	10	16	82		108
17	221	50	271	9	16	84		110
18	228	51	279	9	17	87		112
19	235	53	288	8	17	89		114
20	242	54	296	7	18	92		117

Present Value of Benefits	$1,963	Present Value of Costs	$1,182

Benefit/Cost Ratio	1.66

Table 1

Winter

1	2	3	4	5	6=2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1	100	0.43126	0.38977	0.82103	138
2	100	0.44420	0.40146	0.84566	142
3	100	0.45752	0.41350	0.87103	146
4	100	0.47126	0.42591	0.89716	151
5	100	0.48539	0.43869	0.92407	155
6	100	0.49995	0.45185	0.95179	160
7	100	0.51495	0.46540	0.98035	165
8	100	0.53040	0.47936	1.00976	170
9	100	0.54631	0.49374	1.04005	175
10	100	0.56270	0.50856	1.07125	80
11	100	0.57958	0.52381	1.10339	185
12	100	0.59696	0.53953	1.13649	191
13	100	0.61487	0.55571	1.17059	197
14	100	0.63332	0.57238	1.20571	203
15	100	0.65232	0.58956	1.24188	209
16	100	0.67189	0.60724	1.27913	215
17	100	0.69205	0.62546	1.31751	221
18	100	0.71281	0.64422	1.35703	228
19	100	0.73419	0.66355	1.39774	235
20	100	0.75622	0.68346	1.43968	242

Table 2

Winter

1	2	3	4	4*3
Year	Customer Charge/Bills	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1	6.50	78.00	38.72%	531
2	6.70	80.34	38.72%	532
3	6.90	82.75	38.72%	533
4	7.10	85.23	38.72%	534
5	7.32	87.79	38.72%	535
6	7.54	90.42	38.72%	536
7	7.76	93.14	38.72%	537
8	7.99	95.93	38.72%	538
9	8.23	98.81	38.72%	538
10	8.48	101.77	38.72%	540
11	8.74	104.83	38.72%	542
12	9.00	107.97	38.72%	543
13	9.27	111.21	38.72%	544
14	9.55	114.55	38.72%	545
15	9.83	117.98	38.72%	547
16	10.13	121.52	38.72%	548
17	10.43	125.17	38.72%	550
18	10.74	128.92	38.72%	551
19	11.07	132.79	38.72%	553
20	11.40	136.77	38.72%	554

Table 3

Winter

1	2	3	4	5	6	7	8	7*8
Year	Supply Main	Development Main	Services Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Srvc
1	28	114	384	308	7.57%	729	38.72%	822
2	24	110	371	197	7.57%	702	38.72%	821
3	23	108	368	189	7.57%	679	38.72%	820
4	22	102	348	181	7.57%	660	38.72%	820
5	21	99	332	173	7.57%	634	38.72%	819
6	20	94	319	165	7.57%	595	38.72%	818
7	18	90	308	157	7.57%	572	38.72%	817
8	16	86	293	149	7.57%	549	38.72%	816
9	17	82	280	141	7.57%	520	38.72%	816
10	16	78	267	133	7.57%	494	38.72%	815
11	15	74	254	126	7.57%	468	38.72%	814
12	14	70	241	117	7.57%	442	38.72%	813
13	13	66	226	109	7.57%	416	38.72%	813
14	12	62	215	101	7.57%	380	38.72%	812
15	11	58	202	93	7.57%	364	38.72%	811
16	10	54	189	85	7.57%	338	38.72%	810
17	9	50	176	77	7.57%	312	38.72%	99
18	8	46	163	69	7.57%	286	38.72%	99
19	7	42	150	61	7.57%	260	38.72%	98
20	6	38	137	54	7.57%	236	38.72%	97

Table 4

Winter

1	2	3	4	5	6	7	8	4*7+5+6*8
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & M %	Ratio Therms To Total Consumed	New Customer Adm. & Main Cost
1	2	35	114	28	138	2.04%	38.72%	11
2	2	36	110	24	110	2.04%	38.72%	11
3	2	36	108	23	108	2.04%	38.72%	11
4	2	37	102	22	102	2.04%	38.72%	12
5	2	38	99	21	99	2.04%	38.72%	12
6	2	39	94	20	94	2.04%	38.72%	12
7	2	30	90	19	90	2.04%	38.72%	13
8	3	31	86	18	86	2.04%	38.72%	13
9	3	31	82	17	82	2.04%	38.72%	13
10	3	32	78	16	78	2.04%	38.72%	13
11	3	33	74	15	74	2.04%	38.72%	14
12	3	34	70	14	70	2.04%	38.72%	14
13	3	35	66	13	66	2.04%	38.72%	15
14	3	36	62	12	62	2.04%	38.72%	15
15	3	36	58	11	58	2.04%	38.72%	15
16	3	39	54	10	54	2.04%	38.72%	16
17	3	40	50	9	50	2.04%	38.72%	16
18	3	41	46	8	46	2.04%	38.72%	17
19	4	42	42	7	42	2.04%	38.72%	17
20	4	44	38	6	38	2.04%	38.72%	18

Table 5

Winter

1	2	3	4	5	6	7	4*7+5+6*8+9
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Pipeline & Bal. Cost	Winter Multiplier	Gas Supply Cost
1	100	101	67	0.2200	0.0418	1.33	892
2	100	101	67	0.2318	0.0430	1.33	894
3	100	101	67	0.3367	0.0443	1.33	896
4	100	101	67	0.3458	0.0456	1.33	897
5	100	101	67	0.3533	0.0470	1.33	899
6	100	101	67	0.3609	0.0484	1.33	901
7	100	101	67	0.3687	0.0498	1.33	902
8	100	101	67	0.2768	0.0513	1.33	904
9	100	101	67	0.2851	0.0529	1.33	906
10	100	101	67	0.3936	0.0545	1.33	908
11	100	101	67	0.3034	0.0561	1.33	910
12	100	101	67	0.3116	0.0578	1.33	912
13	100	101	67	0.3209	0.0595	1.33	915
14	100	101	67	0.3305	0.0613	1.33	917
15	100	101	67	0.3404	0.0632	1.33	919
16	100	101	67	0.3506	0.0650	1.33	922
17	100	101	67	0.3611	0.0670	1.33	924
18	100	101	67	0.3720	0.0690	1.33	927
19	100	101	67	0.3831	0.0711	1.33	930
20	100	101	67	0.3946	0.0732	1.33	932

Rate Impact Measure Test Data

All Costs in 1998 dollars | Analysis Start Year: 1998 | Number of Years: 20

Gas Program: Residential Propane Distribution Program | Gas Rate Number: | Electric Rate Number:

Gas Measure: Furnace | Alternate Option: Electric Resistance Furnace | Alt Fuel Type: Electric

Allowance: $278

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric

	$
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	177.0	0.0	177.0
3. Seasonal Rate			0.0
Total	177.0	0.0	177.0

Gas Rates	Rate
6. Base, Winter	$0.43128
7. Base, Summer	$0.43128
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	41.84%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$275
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

	Gas Supply Cost $/Therm
1. Load Profile Type	
2. Commodity (Annual)	30.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	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

Heating

	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
	$	$	$	$	$	$	$	$
1	145	33	178	23	12	60	323	418
2	150	34	184	22	12	62		96
3	154	35	189	21	12	64		97
4	159	36	195	21	12	66		99
5	164	37	201	20	13	68		100
6	168	38	206	19	13	70		102
7	174	39	213	18	13	72		104
8	179	40	219	17	14	74		105
9	184	41	225	16	14	77		107
10	190	43	233	16	14	79		109
11	195	44	239	15	14	81		110
12	201	45	246	14	15	84		112
13	207	47	254	13	15	86		114
14	213	48	261	12	16	89		117
15	220	49	269	12	16	91		119
16	226	51	277	11	16	94		121
17	233	52	285	10	17	97		124
18	240	54	294	9	18	100		126
19	247	56	303	8	18	103		129
20	255	57	312	7	19	106		132

Present Value of Benefits	$2,067	Present Value of Costs	$1,289
		Benefit/Cost Ratio	1.60

Table 1

Heating

1	2	3	4	5	[6]
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1	177	$0.43126	$0.34977	$0.83103	148
2	177	$0.44435	$0.40148	$0.84569	150
3	177	$0.45752	$0.41350	$0.87103	154
4	177	$0.47125	$0.42591	$0.89716	159
5	177	$0.48539	$0.43889	$0.92427	164
6	177	$0.49985	$0.45180	$0.95176	168
7	177	$0.51485	$0.46540	$0.98025	174
8	177	$0.53040	$0.47938	$1.00978	179
9	177	$0.54631	$0.49334	$1.04009	184
10	177	$0.56270	$0.50858	$1.07128	190
11	177	$0.57958	$0.52381	$1.10339	195
12	177	$0.59696	$0.53953	$1.13649	201
13	177	$0.61487	$0.55571	$1.17059	207
14	177	$0.63332	$0.57238	$1.20571	213
15	177	$0.65232	$0.58956	$1.24188	220
16	177	$0.67189	$0.60734	$1.27913	226
17	177	$0.69205	$0.62548	$1.31751	233
18	177	$0.71281	$0.64422	$1.35703	240
19	177	$0.73418	$0.66355	$1.39774	247
20	177	$0.75622	$0.68346	$1.43968	255

Table 2

Heating

1	2	3	4	[5]
Year	Customer Charge/Mo	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg
1	$ 6.50	$ 78.00	41.84%	$33
2	$ 6.70	$ 80.34	41.84%	$34
3	$ 6.90	$ 82.75	41.84%	$35
4	$ 7.10	$ 85.23	41.84%	$36
5	$ 7.32	$ 87.78	41.84%	$37
6	$ 7.54	$ 90.42	41.84%	$38
7	$ 7.76	$ 93.14	41.84%	$39
8	$ 7.99	$ 95.93	41.84%	$40
9	$ 8.23	$ 98.81	41.84%	$41
10	$ 8.48	$ 101.77	41.84%	$43
11	$ 8.74	$ 104.83	41.84%	$44
12	$ 9.00	$ 107.97	41.84%	$45
13	$ 9.27	$ 111.21	41.84%	$47
14	$ 9.55	$ 114.55	41.84%	$48
15	$ 9.83	$ 117.98	41.84%	$49
16	$ 10.13	$ 121.52	41.84%	$51
17	$ 10.43	$ 125.17	41.84%	$52
18	$ 10.74	$ 128.93	41.84%	$54
19	$ 11.07	$ 132.79	41.84%	$56
20	$ 11.40	$ 136.77	41.84%	$57

Table 3

Heating

1	2	3	4	5	6	7	8	[9]
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Dist	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
1	26	114	384	308	7.57%	728	41.84%	$23
2	24	110	371	157	7.57%	702	41.84%	$22
3	23	108	368	169	7.57%	676	41.84%	$21
4	22	107	345	181	7.57%	650	41.84%	$21
5	21	99	332	173	7.57%	624	41.84%	$20
6	20	94	318	165	7.57%	598	41.84%	$19
7	19	90	308	157	7.57%	572	41.84%	$18
8	19	89	303	149	7.57%	546	41.84%	$17
9	17	82	300	141	7.57%	520	41.84%	$16
10	16	78	287	133	7.57%	494	41.84%	$16
11	15	74	254	125	7.57%	468	41.84%	$15
12	14	70	241	117	7.57%	442	41.84%	$14
13	13	66	228	109	7.57%	416	41.84%	$13
14	12	62	215	101	7.57%	390	41.84%	$12
15	11	58	202	93	7.57%	364	41.84%	$12
16	10	54	188	85	7.57%	338	41.84%	$11
17	9	50	176	77	7.57%	312	41.84%	$10
18	8	46	163	68	7.57%	286	41.84%	$9
19	7	42	150	61	7.57%	260	41.84%	$8
20	6	38	137	54	7.57%	236	41.84%	$7

Table 4

Heating

1	2	3	4	5	6	7	8	[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
1	3	26	114	25	139	2.04%	41.84%	12
2	3	26	110	24	110	2.04%	41.84%	12
3	3	26	108	23	108	2.04%	41.84%	12
4	3	27	107	22	102	2.04%	41.84%	12
5	3	28	99	21	99	2.04%	41.84%	3
6	3	29	94	20	94	2.04%	41.84%	12
7	3	30	90	19	90	2.04%	41.84%	13
8	3	31	89	18	89	2.04%	41.84%	14
9	3	31	82	17	82	2.04%	41.84%	14
10	3	32	78	16	78	2.04%	41.84%	14
11	3	33	74	15	74	2.04%	41.84%	15
12	3	34	70	14	70	2.04%	41.84%	15
13	3	35	66	13	66	2.04%	41.84%	15
14	3	36	62	12	62	2.04%	41.84%	16
15	3	36	58	11	58	2.04%	41.84%	16
16	3	39	54	10	54	2.04%	41.84%	17
17	3	40	50	9	50	2.04%	41.84%	17
18	3	41	46	8	46	2.04%	41.84%	18
19	4	42	42	7	42	2.04%	41.84%	18
20	4	44	38	6	38	2.04%	41.84%	19

Table 5

Heating

1	2	3	4	5	6	7	[8]
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Pooling & Bal. Cost	Winter Multiplier	Gas Supply Cost
1	177	177	0	$ 0.2250	$ 0.0418	1.33	$60
2	177	177	0	$ 0.2318	$ 0.0430	1.33	$62
3	177	177	0	$ 0.2387	$ 0.0443	1.33	$64
4	177	177	0	$ 0.2458	$ 0.0456	1.33	$66
5	177	177	0	$ 0.2533	$ 0.0470	1.33	$68
6	177	177	0	$ 0.2608	$ 0.0484	1.33	$70
7	177	177	0	$ 0.2687	$ 0.0498	1.33	$72
8	177	177	0	$ 0.2768	$ 0.0513	1.33	$74
9	177	177	0	$ 0.2851	$ 0.0529	1.33	$77
10	177	177	0	$ 0.2936	$ 0.0545	1.33	$79
11	177	177	0	$ 0.3024	$ 0.0561	1.33	$81
12	177	177	0	$ 0.3115	$ 0.0578	1.33	$84
13	177	177	0	$ 0.3209	$ 0.0595	1.33	$86
14	177	177	0	$ 0.3305	$ 0.0613	1.33	$89
15	177	177	0	$ 0.3404	$ 0.0632	1.33	$91
16	177	177	0	$ 0.3506	$ 0.0650	1.33	$94
17	177	177	0	$ 0.3611	$ 0.0670	1.33	$97
18	177	177	0	$ 0.3720	$ 0.0690	1.33	$100
19	177	177	0	$ 0.3831	$ 0.0711	1.33	$103
20	177	177	0	$ 0.3946	$ 0.0732	1.33	$106

Rate Impact Measure Test Data

All Costs in 1998 dollars. Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Propane Distribution Program Gas Rate Number Electric Rate Number

Gas Measure: Dryer

Alternate Option: Dryer
Alt FuelType: Electric

Allowance: $75

Gas Utility: Chesapeake Utilities Corporation

Electric Utility: Tampa Electric

	$
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	23.0	23.0	46.0
3. Seasonal Rate			0.0
Total	23.0	23.0	46.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	10.87%
15. Average Life	13

III. Common Gas & Electric Data

1. Discount Rate 8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$75
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost
1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	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

Dryer

	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
	$	$	$	$	$	$	$	$
1	38	8	46	6	3	14	123	146
2	39	9	48	6	3	14		23
3	40	9	49	6	3	15		24
4	41	9	50	5	3	15		24
5	43	10	53	5	3	16		24
6	44	10	54	5	3	16		25
7	45	10	55	5	4	17		25
8	46	10	56	4	4	17		25
9	48	11	59	4	4	18		26
10	49	11	60	4	4	18		26
11	51	11	62	4	4	19		26
12	52	12	64	4	4	19		27
13	54	12	66	3	4	20		27
14	55	12	67	3	4	21		28
15	57	13	70	3	4	21		28
16	59	13	72	3	4	22		29
17	61	14	75	3	4	22		29
18	62	14	76	2	5	23		30
19	64	14	78	2	5	24		31
20	66	15	81	2	5	25		31

Present Value of Benefits	$537	Present Value of Costs	$351
		Benefit/Cost Ratio	1.53

Table 1

Dryer

1	2	3	4	5	2*5
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1	48	[illegible]	[illegible]	[illegible]	$38
2	48	[illegible]	[illegible]	[illegible]	$39
3	48	[illegible]	[illegible]	[illegible]	$40
4	48	[illegible]	[illegible]	[illegible]	$41
5	48	[illegible]	[illegible]	[illegible]	$43
6	48	[illegible]	[illegible]	[illegible]	$44
7	48	[illegible]	[illegible]	[illegible]	$45
8	48	[illegible]	[illegible]	[illegible]	$46
9	48	[illegible]	[illegible]	[illegible]	$48
10	48	[illegible]	[illegible]	[illegible]	$49
11	48	[illegible]	[illegible]	[illegible]	$51
12	48	[illegible]	[illegible]	[illegible]	$52
13	48	[illegible]	[illegible]	[illegible]	$54
14	48	[illegible]	[illegible]	[illegible]	$55
15	48	[illegible]	[illegible]	[illegible]	$57
16	48	[illegible]	[illegible]	[illegible]	$59
17	48	[illegible]	[illegible]	[illegible]	$61
18	48	[illegible]	[illegible]	[illegible]	$62
19	48	[illegible]	[illegible]	[illegible]	$64
20	48	[illegible]	[illegible]	[illegible]	$66

Table 2

Dryer

1	2	3	4	4*3
Year	Customer Chg	Annual Cust. Chg.	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1	6.50	78.00	10.87%	$8
2	6.70	80.34	10.87%	$9
3	6.90	82.75	10.87%	$9
4	7.10	85.23	10.87%	$9
5	7.32	87.79	10.87%	$10
6	7.54	90.42	10.87%	$10
7	7.76	93.14	10.87%	$10
8	7.99	95.93	10.87%	$10
9	8.23	98.81	10.87%	$11
10	8.48	101.77	10.87%	$11
11	8.74	104.83	10.87%	$11
12	9.00	107.97	10.87%	$12
13	9.27	111.21	10.87%	$12
14	9.55	114.55	10.87%	$12
15	9.83	117.99	10.87%	$13
16	10.13	121.53	10.87%	$13
17	10.43	125.17	10.87%	$14
18	10.74	128.93	10.87%	$14
19	11.07	132.79	10.87%	$14
20	11.40	136.77	10.87%	$15

Table 3

Dryer

1	2	3	4	5	6	7	8	[illegible]
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
1	25	114	[illegible]	200	7.57%	728	10.87%	$9
2	24	110	371	187	7.57%	702	10.87%	$8
3	23	106	358	180	7.57%	676	10.87%	$8
4	22	102	345	191	7.57%	650	10.87%	$8
5	21	98	332	173	7.57%	624	10.87%	$8
6	20	94	319	165	7.57%	598	10.87%	$8
7	19	90	306	157	7.57%	572	10.87%	$8
8	18	86	293	149	7.57%	546	10.87%	$4
9	17	82	280	141	7.57%	520	10.87%	$4
10	16	78	267	133	7.57%	494	10.87%	$4
11	15	74	254	125	7.57%	468	10.87%	$4
12	14	70	241	117	7.57%	442	10.87%	$4
13	13	66	228	109	7.57%	416	10.87%	$3
14	12	62	215	101	7.57%	390	10.87%	$3
15	11	58	202	93	7.57%	364	10.87%	$3
16	10	54	189	85	7.57%	338	10.87%	$3
17	9	50	176	77	7.57%	312	10.87%	$3
18	8	46	163	69	7.57%	286	10.87%	$2
19	7	42	150	61	7.57%	260	10.87%	$2
20	6	38	137	54	7.57%	236	10.87%	$2

Table 4

Dryer

1	2	3	4	5	6	7	8	[illegible]
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Main Cost	O & [illegible] %	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
1	2	25	114	25	139	2.04%	10.87%	3
2	2	26	110	24	110	2.04%	10.87%	3
3	2	26	106	23	106	2.04%	10.87%	3
4	2	27	102	22	102	2.04%	10.87%	3
5	2	28	98	21	98	2.04%	10.87%	3
6	2	29	94	20	94	2.04%	10.87%	3
7	2	30	90	19	90	2.04%	10.87%	4
8	3	31	86	18	86	2.04%	10.87%	4
9	3	31	82	17	82	2.04%	10.87%	4
10	3	32	78	16	78	2.04%	10.87%	4
11	3	33	74	15	74	2.04%	10.87%	4
12	3	34	70	14	70	2.04%	10.87%	4
13	3	35	66	13	66	2.04%	10.87%	4
14	3	36	62	12	62	2.04%	10.87%	4
15	3	38	58	11	58	2.04%	10.87%	4
16	3	39	54	10	54	2.04%	10.87%	4
17	3	40	50	9	50	2.04%	10.87%	4
18	3	41	46	8	46	2.04%	10.87%	5
19	4	42	42	7	42	2.04%	10.87%	5
2017	4	44	38	6	38	2.04%	10.87%	5

Table 5

Dryer

1	2	3	4	5	6	7	[illegible]
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Temp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1	48	25	23	0.2260	0.0419	1.33	$14
2	48	25	23	0.2318	0.0430	1.33	$14
3	48	25	23	0.2387	0.0443	1.33	$15
4	48	25	23	0.2459	0.0458	1.33	$15
5	48	25	23	0.2533	0.0475	1.33	$16
6	48	25	23	0.2609	0.0484	1.33	$16
7	48	25	23	0.2687	0.0499	1.33	$17
8	48	25	23	0.2768	0.0513	1.33	$17
9	48	25	23	0.2851	0.0528	1.33	$18
10	48	25	23	0.2936	0.0546	1.33	$18
11	48	25	23	0.3024	0.0561	1.33	$19
12	48	25	23	0.3115	0.0579	1.33	$19
13	48	25	23	0.3209	0.0595	1.33	$20
14	48	25	23	0.3305	0.0613	1.33	$21
15	48	25	23	0.3404	0.0632	1.33	$21
16	48	25	23	0.3506	0.0650	1.33	$22
17	48	25	23	0.3611	0.0670	1.33	$23
18	48	25	23	0.3720	0.0690	1.33	$23
19	48	25	23	0.3831	0.0711	1.33	$24
20	48	25	23	0.3946	0.0732	1.33	$25

Rate Impact Measure Test Data

All Costs in: 1998 dollars | Analysis Start Year: 1998 | Number of Years: 20

Gas Program: Residential Propane Distribution Program | Gas Rate Number | Electric Rate Number

Gas Measure: Range | Alternate Option: Range
Alt FuelType: Electric

Allowance: $75

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric

	$
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	16.0	16.0	32.0
3. Seasonal Rate			0.0
Total	16.0	16.0	32.0

Gas Rates	Rate
6. Base, Winter	$0.43128
7. Base, Summer	$0.43128
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$8.50
14. Ratio of Therms Consumed to Total	7.57%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	$728
5. Utility Allowance	$75
6. Program Cost	$48
7. New Customer Admin. Cost $/month	$2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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	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

1	2 Consumed Conserved Displaced Gas Therms Table 1 $	3 Gas Customer Charge Table 2 $	4 Total Columns 2 thru 3 $	5 Carrying Chg. On Main, Svc. & Meter Table 3 $	6 New Customer Admin. & Facilities O&M Table 4 $	7 Gas Supply Cost Table 5 $	8 Program & Allowance Cost $	9 Total Columns 6 thru 9 $
1	26	6	32	$4	2	10	123	139
2	27	6	33	$4	2	10		16
3	28	6	34	$4	2	10		16
4	29	6	35	$4	2	11		17
5	30	7	37	$4	2	11		17
6	30	7	37	$3	2	11		17
7	31	7	38	$3	2	12		17
8	32	7	39	$3	2	12		17
9	33	7	40	$3	2	12		18
10	34	8	42	$3	3	13		18
11	35	8	43	$3	3	13		19
12	36	8	44	$3	3	13		19
13	37	8	45	$2	3	14		19
14	39	9	48	$2	3	14		19
15	40	9	49	$2	3	15		20
16	41	9	50	$2	3	15		20
17	42	9	51	$2	3	16		21
18	43	10	53	$2	3	16		21
19	45	10	55	$1	3	17		21
20	46	10	56	$1	3	17		21

Present Value of Benefits	$372	Present Value of Costs	$279
		Benefit/Cost Ratio	1.33

Table 1

Range

1	2	3	4	5	5*2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1	32	$0.43126	$0.38977	$0.82103	$26
2	32	$0.44420	$0.40148	$0.84568	$27
3	32	$0.45752	$0.41350	$0.87103	$28
4	32	$0.47125	$0.42591	$0.89716	$29
5	32	$0.48539	$0.43868	$0.92407	$30
6	32	$0.49995	$0.45185	$0.95179	$30
7	32	$0.51495	$0.46540	$0.98035	$31
8	32	$0.53040	$0.47936	$1.00976	$32
9	32	$0.54631	$0.49374	$1.04005	$33
10	32	$0.56270	$0.50856	$1.07125	$34
11	32	$0.57958	$0.52381	$1.10339	$35
12	32	$0.59696	$0.53953	$1.13649	$36
13	32	$0.61487	$0.55571	$1.17059	$37
14	32	$0.63332	$0.57239	$1.20571	$38
15	32	$0.65232	$0.58956	$1.24188	$40
16	32	$0.67189	$0.60724	$1.27913	$41
17	32	$0.69205	$0.62546	$1.31751	$42
18	32	$0.71281	$0.64422	$1.35703	$43
19	32	$0.73419	$0.66355	$1.39774	$45
20	32	$0.75622	$0.68346	$1.43968	$46

Table 2

Range

1	2	3	4	4*3
Year	Customer Chargeable	Annual Cust. Chg.	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg.
1	6.50	78.00	7.57%	$6
2	6.70	80.34	7.57%	$6
3	6.90	82.75	7.57%	$6
4	7.10	85.23	7.57%	$6
5	7.32	87.79	7.57%	$7
6	7.54	90.42	7.57%	$7
7	7.76	93.14	7.57%	$7
8	7.99	95.93	7.57%	$7
9	8.23	98.81	7.57%	$7
10	8.48	101.77	7.57%	$8
11	8.74	104.83	7.57%	$8
12	9.00	107.97	7.57%	$8
13	9.27	111.21	7.57%	$8
14	9.55	114.55	7.57%	$9
15	9.83	117.98	7.57%	$9
16	10.13	121.52	7.57%	$9
17	10.43	125.17	7.57%	$9
18	10.74	128.92	7.57%	$10
19	11.07	132.79	7.57%	$10
20	11.40	136.78	7.57%	$10

Table 3

Range

1	2	3	4	5	6	7	8	7*8*6
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio Therms Cons.	Carrying Chg Mains & Svc
1	25	114	384	205	7.57%	728	7.57%	$4
2	24	110	371	197	7.57%	702	7.57%	$4
3	23	106	358	189	7.57%	676	7.57%	$4
4	22	102	345	181	7.57%	650	7.57%	$4
5	21	98	332	173	7.57%	624	7.57%	$4
6	20	94	319	165	7.57%	598	7.57%	$3
7	19	90	306	157	7.57%	572	7.57%	$3
8	18	86	293	149	7.57%	546	7.57%	$3
9	17	82	280	141	7.57%	520	7.57%	$3
10	16	78	267	133	7.57%	494	7.57%	$3
11	15	74	254	125	7.57%	468	7.57%	$3
12	14	70	241	117	7.57%	442	7.57%	$3
13	13	66	228	109	7.57%	416	7.57%	$2
14	12	62	215	101	7.57%	390	7.57%	$2
15	11	58	202	93	7.57%	364	7.57%	$2
16	10	54	189	85	7.57%	338	7.57%	$2
17	9	50	176	77	7.57%	312	7.57%	$2
18	8	46	163	69	7.57%	286	7.57%	$2
19	7	42	150	61	7.57%	260	7.57%	$1
20	6	38	137	54	7.57%	235	7.57%	$1

Table 4

Range

1	2	3	4	5	6	7	[illegible]
Year	Adm. Cost	Annual Adm. Cost	Development Main	Supply Main	Customer Cost	Ratio Therms To Total Consumed	New Customer Adm. & Main O&M
1	2	25	114	25	139	7.57%	$2
2	2	26	110	24	134	7.57%	$2
3	2	26	106	23	129	7.57%	$2
4	2	27	102	22	124	7.57%	$2
5	2	28	98	21	119	7.57%	$2
6	2	29	94	20	114	7.57%	$2
7	2	30	90	19	109	7.57%	$2
8	3	31	86	18	104	7.57%	$2
9	3	31	82	17	99	7.57%	$2
10	3	32	78	16	94	7.57%	$3
11	3	33	74	15	89	7.57%	$3
12	3	34	70	14	84	7.57%	$3
13	3	35	66	13	79	7.57%	$3
14	3	36	62	12	74	7.57%	$3
15	3	38	58	11	69	7.57%	$3
16	3	39	54	10	64	7.57%	$3
17	3	40	50	9	59	7.57%	$3
18	3	41	46	8	54	7.57%	$3
19	4	42	42	7	49	7.57%	$3
20	4	44	38	6	44	7.57%	$3

Table 5

Range

1	2	3	4	5	6	7	[illegible]
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1	32	16	16	0.2230	0.0418	1.33	$10
2	32	16	16	0.2318	0.0430	1.33	$10
3	32	16	16	0.2387	0.0443	1.33	$10
4	32	16	16	0.2459	0.0456	1.33	$11
5	32	16	16	0.2533	0.0470	1.33	$11
6	32	16	16	0.2609	0.0484	1.33	$11
7	32	16	16	0.2687	0.0498	1.33	$12
8	32	16	16	0.2768	0.0513	1.33	$12
9	32	16	16	0.2851	0.0529	1.33	$12
10	32	16	16	0.2936	0.0545	1.33	$13
11	32	16	16	0.3024	0.0561	1.33	$13
12	32	16	16	0.3115	0.0578	1.33	$13
13	32	16	16	0.3209	0.0595	1.33	$14
14	32	16	16	0.3305	0.0613	1.33	$14
15	32	16	16	0.3404	0.0632	1.33	$15
16	32	16	16	0.3506	0.0650	1.33	$15
17	32	16	16	0.3611	0.0670	1.33	$16
18	32	16	16	0.3720	0.0690	1.33	$16
19	32	16	16	0.3831	0.0711	1.33	$17
20	32	16	16	0.3946	0.0732	1.33	$17

Participants Cost Effectiveness Test Data

All Costs in: 1998 dollars | Analysis Start Year: 1998 | Number of Years: 20

Gas Program: Residential Propane Distribution 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: $275

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$222
2. Installation	482
Total Cust. Cost	$704
3. Utility Rebate	$275
4. Other Rebate	

II. Operating Data

1. Energy Factor: 0.56

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101.0	67.0	168.0
3. Seasonal Rate			0.0
Total	101.0	67.0	168.0

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

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$8.50
14. Ratio of Therms Consumed to Total	39.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate: 8.85%

IV. Installed Cost Data

	$
1. Equipment	$233
2. Installation	180
Total Cust. Cost	$413
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conservation Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3,222	3,222
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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	$0.0000
13. Electric Rate per KW, Summer	$0.0000
14. Electric Taxes & Fees	13.67%
15. Customer Chg	$8.85

VI. Therms Displaced

1. Energy Factor: 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Water

Program 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
1	$267	$0	$157	$9	$7	$35	$0	$0	$77	$0	$0	$0
2	$275	$0	$161	$9	$7	$36	0	0	$79	0	0	0
3	$283	$0	$166	$10	$7	$37	0	0	$81	0	0	0
4	$291	$0	$171	$10	$8	$38	0	0	$84	0	0	0
5	$300	$0	$176	$10	$8	$40	0	0	$86	0	0	0
6	$309	$0	$182	$10	$8	$41	0	0	$89	0	0	0
7	$318	$0	$187	$11	$8	$42	0	0	$91	0	0	0
8	$328	$0	$193	$11	$9	$43	0	0	$94	0	0	0
9	$338	$0	$199	$11	$9	$45	0	0	$97	0	0	0
10	$348	$0	$205	$12	$9	$46	0	0	$100	0	0	0
11	$358	$0	$211	$12	$9	$47	0	0	$103	0	298	298
12	$369	$0	$217	$12	$10	$49	0	0	$106	0	0	0
13	$380	$0	$224	$13	$10	$50	0	0	$109	332	0	(332)
14	$392	$0	$230	$13	$10	$52	0	0	$112	0	0	0
15	$403	$0	$237	$14	$11	$53	0	0	$116	0	0	0
16	$415	$0	$244	$14	$11	$55	0	0	$119	0	0	0
17	$428	$0	$252	$14	$11	$57	0	0	$123	0	0	0
18	$441	$0	$259	$15	$12	$58	0	0	$127	0	0	0
19	$454	$0	$267	$15	$12	$60	0	0	$130	0	0	0
20	$467	$0	$275	$16	$12	$62	0	0	$134	0	0	0
								Present Value of Benefits	$890		Present Value of Costs	$7
											Benefit/Cost Ratio	132.76

TABLE 1 Electric KW Cost WATER

1 Year	2 KWH Cost	3 Annual KWH	4 Tax & Fees	2*3*4 Electric Cost
1	$0.0738	3,222	13.67%	$267
2	$0.0760	3,222	13.67%	$275
3	$0.0772	3,222	13.67%	$280
4	$0.0786	3,222	13.67%	$284
5	$0.0810	3,222	13.67%	$293
6	$0.0844	3,222	13.67%	$305
7	$0.0869	3,222	13.67%	$314
8	$0.0895	3,222	13.67%	$324
9	$0.0922	3,222	13.67%	$334
10	$0.0950	3,222	13.67%	$344
11	$0.0978	3,222	13.67%	$354
12	$0.1008	3,222	13.67%	$365
13	$0.1038	3,222	13.67%	$376
14	$0.1069	3,222	13.67%	$387
15	$0.1101	3,222	13.67%	$399
16	$0.1134	3,222	13.67%	$411
17	$0.1168	3,222	13.67%	$423
18	$0.1203	3,222	13.67%	$436
19	$0.1239	3,222	13.67%	$449
20	$0.1276	3,222	13.67%	$462

TABLE 2 Consumed-Displaced-Conserved - Therms

Water

1 Year	2 Therm Cost	3 Annual THERMS	4 Tax Fees	2*3*4 Gas Cost
1	$0.8210	168	13.67%	$157
2	$0.8457	168	13.67%	$161
3	$0.8710	168	13.67%	$166
4	$0.8972	168	13.67%	$171
5	$0.9241	168	13.67%	$176
6	$0.9518	168	13.67%	$182
7	$0.9803	168	13.67%	$187
8	$1.0098	168	13.67%	$193
9	$1.0401	168	13.67%	$199
10	$1.0713	168	13.67%	$205
11	$1.1034	168	13.67%	$211
12	$1.1365	168	13.67%	$217
13	$1.1706	168	13.67%	$224
14	$1.2057	168	13.67%	$230
15	$1.2419	168	13.67%	$237
16	$1.2791	168	13.67%	$244
17	$1.3175	168	13.67%	$252
18	$1.3570	168	13.67%	$259
19	$1.3977	168	13.67%	$267
20	$1.4397	168	13.67%	$275

TABLE 3 Gas Customer Charge Water

1 Year	2 Monthly Cust. Chrg	3 Annual Cust. Chrg	4 WS 1b Annual Therms	5 Total Annual Therms	6 Ratio Therms Consumed to Total	2*6=13.67% Gas Customer Charge
1	$6.50	$78.00	168	423	39.72%	$26
2	$6.70	$80.34	168	423	39.72%	$26
3	$6.90	$82.75	168	423	39.72%	$27
4	$7.10	$85.23	168	423	39.72%	$28
5	$7.32	$87.79	168	423	39.72%	$40
6	$7.54	$90.42	168	423	39.72%	$41
7	$7.78	$93.14	168	423	39.72%	$42
8	$7.99	$95.93	168	423	39.72%	$43
9	$8.23	$98.81	168	423	39.72%	$45
10	$8.48	$101.77	168	423	39.72%	$46
11	$8.74	$104.83	168	423	39.72%	$47
12	$9.00	$107.97	168	423	39.72%	$49
13	$9.27	$111.21	168	423	39.72%	$50
14	$9.55	$114.55	168	423	39.72%	$52
15	$9.83	$117.98	168	423	39.72%	$53
16	$10.13	$121.52	168	423	39.72%	$53
17	$10.43	$125.17	168	423	39.72%	$57
18	$10.74	$128.92	168	423	39.72%	$58
19	$11.07	$132.79	168	423	39.72%	$60
20	$11.40	$136.77	168	423	39.72%	$62

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars Analysis Start Year: 1998 Number of Yea : 20

Gas Program: Residential Propane Distribution Program Gas Rate Number Electric Rate Number

Gas Measures: Furnace Alternate Options: Electric Resistance Furnace
Alt FuelType: Electric

Allowance: $275

Gas Utility: Chesapeake Utilities Corporation Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$1,460
2. Installation	579
Total Cust. Cost	$2,039
3. Utility Rebate	$275
4. Other Rebate	

II. Operating Data

1. Energy Factor 0.78

Therms Consumed	Winter	Summer	Total
2. Standard Rate	177.0	0.0	177.0
3. Seasonal Rate			0.0
Total	177.0	0.0	177.0

4. Electric Consumption in KWH
5. O&M (excluding energy) $14

Gas Rates	Rate
6. Base, Winter	$0.43128
7. Base, Summer	$0.43128
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	41.84%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate 8.85%

IV. Installed Cost Data

	$
1. Equipment	$543
2. Installation	616
Total Cust. Cost	$1,159
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	4,042	4,042
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)	$9
8. Monthly Utility Incentive	$0
9. Average Life in Yrs	16
10. Existing Remaining Life in Yrs	0
11. Electric Rate per KWH	$0.0728
12. Electric Rate per KW, Winter	$0.0000
13. Electric Rate per KW, Summer	$0.0000
14. Electric Taxes & Fees	13.67%
15.Customer Chg	$8.85

VI. Therms Displaced

1. Energy Factor 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Furnace

Program 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
1	$334	$0	$165	$9	$14	$37	$0	$0	$127	$0	$0	$0
2	$344	$0	$170	$9	$14	$38	0	0	$131	0	0	0
3	$355	$0	$175	$10	$15	$39	0	0	$135	0	0	0
4	$365	$0	$181	$10	$15	$41	0	0	$139	0	0	0
5	$376	$0	$186	$10	$16	$42	0	0	$143	0	0	0
6	$388	$0	$191	$10	$16	$43	0	0	$147	0	0	0
7	$399	$0	$197	$11	$17	$44	0	0	$152	0	0	0
8	$411	$0	$203	$11	$17	$46	0	0	$156	0	0	0
9	$424	$0	$209	$11	$18	$47	0	0	$161	0	0	0
10	$436	$0	$216	$12	$18	$48	0	0	$166	0	0	0
11	$449	$0	$222	$12	$19	$50	0	0	$171	0	0	0
12	$463	$0	$229	$12	$19	$51	0	0	$176	0	0	0
13	$477	$0	$236	$13	$20	$53	0	0	$181	0	0	0
14	$491	$0	$243	$13	$21	$54	0	0	$187	0	0	0
15	$506	$0	$250	$14	$21	$56	0	0	$192	821	0	(821)
16	$521	$0	$257	$14	$22	$58	0	0	$198	0	0	0
17	$537	$0	$265	$14	$22	$60	0	0	$204	0	0	0
18	$553	$0	$273	$15	$23	$61	0	0	$210	0	2413	2413
19	$569	$0	$281	$15	$24	$63	0	0	$217	0	0	0
20	$586	$0	$290	$16	$25	$65	$0	0	$223	0	0	0
								Present Value of Benefits	$1,477		Present Value of Costs	$305

Benefit/Cost Ratio	4.84

TABLE 1 Electric KW Cost Furnace

1	2	3	4	2*3*4
Year	KW-Hr Cost	Annual KWH	Tax & Fees	Electric Cost
1	$0.0738	4,042	13.67%	$334
2	$0.0755	4,042	13.67%	$344
3	$0.0772	4,042	13.67%	$355
4	$0.0795	4,042	13.67%	$365
5	$0.0819	4,042	13.67%	$376
6	$0.0844	4,042	13.67%	$388
7	$0.0869	4,042	13.67%	$399
8	$0.0895	4,042	13.67%	$411
9	$0.0922	4,042	13.67%	$424
10	$0.0950	4,042	13.67%	$436
11	$0.0979	4,042	13.67%	$449
12	$0.1008	4,042	13.67%	$463
13	$0.1038	4,042	13.67%	$477
14	$0.1069	4,042	13.67%	$491
15	$0.1101	4,042	13.67%	$506
16	$0.1134	4,042	13.67%	$521
17	$0.1168	4,042	13.67%	$537
18	$0.1203	4,042	13.67%	$553
19	$0.1239	4,042	13.67%	$569
20	$0.1276	4,042	13.67%	$586

TABLE 2 Consumer-Displaced-Conserved - Therms Furnace

1	2	3	4	2*3*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1	$0.8210	177	13.67%	$166
2	$0.8457	177	13.67%	$170
3	$0.8710	177	13.67%	$175
4	$0.8972	177	13.67%	$181
5	$0.9241	177	13.67%	$186
6	$0.9518	177	13.67%	$191
7	$0.9803	177	13.67%	$197
8	$1.0096	177	13.67%	$203
9	$1.0401	177	13.67%	$209
10	$1.0713	177	13.67%	$216
11	$1.1034	177	13.67%	$222
12	$1.1365	177	13.67%	$229
13	$1.1706	177	13.67%	$234
14	$1.2057	177	13.67%	$243
15	$1.2418	177	13.67%	$250
16	$1.2791	177	13.67%	$257
17	$1.3175	177	13.67%	$266
18	$1.3570	177	13.67%	$273
19	$1.3977	177	13.67%	$281
20	$1.4397	177	13.67%	$290

TABLE 3 Gas Customer Charge Furnace

1	2	3	4	5	6	2*5+13.67%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Furnace Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1	$6.60	$79.00	177	423	41.84%	$37
2	$6.70	$80.34	177	423	41.84%	$38
3	$6.80	$82.75	177	423	41.84%	$38
4	$7.10	$85.23	177	423	41.84%	$41
5	$7.33	$87.79	177	423	41.84%	$42
6	$7.54	$90.42	177	423	41.84%	$43
7	$7.79	$93.14	177	423	41.84%	$44
8	$7.99	$95.93	177	423	41.84%	$46
9	$8.23	$98.81	177	423	41.84%	$47
10	$8.48	$101.77	177	423	41.84%	$48
11	$8.74	$104.83	177	423	41.84%	$50
12	$9.00	$107.97	177	423	41.84%	$51
13	$9.27	$111.21	177	423	41.84%	$53
14	$9.55	$114.55	177	423	41.84%	$54
15	$9.83	$117.98	177	423	41.84%	$56
16	$10.13	$121.52	177	423	41.84%	$58
17	$10.43	$125.17	177	423	41.84%	$60
18	$10.7	$128.92	177	423	41.84%	$61
19	$11.07	$132.79	177	423	41.84%	$63
20	$11.40	$136.77	177	423	41.84%	$66

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars | Analysis Start Year: 1998 | Number of Years: 20

Gas Program: Residential Propane Distribution Program | Gas Rate Number | Electric Rate Number

Gas Measure: Dryer | Alternate Option: Dryer | Alt FuelType: Electric

Allowance: $75

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampe Electric Co.

I. Installed Cost Data

	$
1. Equipment	$400
2. Installation	180
Total Cust. Cost	$580
3. Utility Rebate	$75
4. Other Rebate	

II. Operating Data

1. Energy Factor: 0.72

Therms Consumed	Winter	Summer	Total
2. Standard Rate	23.0	23.0	46.0
3. Seasonal Rate			0.0
Total	23.0	23.0	46.0

4. Electric Consumption in KWH
5. O&M (excluding energy): $10

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	10.87%
15. Average Life	13

III. Common Gas & Electric Data

1. Discount Rate: 8.65%

IV. Installed Cost Data

	$
1. Equipment	$350
2. Installation	107
Total Cust. Cost	$457
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	985	985
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	0	0

	Winter	Summer
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		$0.0728
12. Electric Rate per KW, Winter		$0.0000
13. Electric Rate per KW, Summer		$0.0000
14. Electric Taxes & Fees		13.67%
15.Customer Chg		$8.85

VI. Therms Displaced

1. Energy Factor: 1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	0.0

PARTICIPANTS COST EFFECTIVE RESULTS

Dryer

Program 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
1	$82	$0	$43	$14	$10	$10	$0	$0	$33	$0	$0	$0
2	$84	$0	$44	$14	$10	$10	0	0	$34	0	0	0
3	$86	$0	$46	$15	$11	$10	0	0	$35	0	0	0
4	$89	$0	$47	$15	$11	$11	0	0	$36	0	0	0
5	$92	$0	$48	$16	$11	$11	0	0	$37	0	0	0
6	$94	$0	$50	$16	$12	$11	0	0	$38	0	0	0
7	$97	$0	$51	$17	$12	$12	0	0	$39	0	0	0
8	$100	$0	$53	$17	$12	$12	0	0	$41	0	0	0
9	$103	$0	$54	$18	$13	$12	0	0	$42	0	0	0
10	$106	$0	$56	$18	$13	$13	0	0	$43	0	0	0
11	$110	$0	$58	$19	$13	$13	0	0	$44	0	0	0
12	$113	$0	$59	$19	$14	$13	0	0	$46	484	554	69
13	$116	$0	$61	$20	$14	$14	0	0	$47	0	0	0
14	$120	$0	$63	$21	$15	$14	0	0	$48	0	0	0
15	$123	$0	$65	$21	$15	$15	0	0	$50	0	0	0
16	$127	$0	$67	$22	$16	$15	0	0	$51	0	0	0
17	$131	$0	$69	$22	$16	$15	0	0	$53	0	0	0
18	$135	$0	$71	$23	$17	$16	0	0	$54	0	0	0
19	$139	$0	$73	$24	$17	$16	0	0	$56	0	0	0
20	$143	$0	$75	$25	$18	$17	0	0	$58	0	0	0
								Present Value of Benefits	$383		Present Value of Costs	$26
											Benefit/Cost Ratio	14.96

DOCKET NO
EXHIBIT C

TABLE 1 Electric KW Cost Dryer

1	2	3	4	[illegible]
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1	$0.0728	985	13.67%	$82
2	$0.0750	985	13.67%	$84
3	$0.0772	985	13.67%	$86
4	$0.0795	985	13.67%	$89
5	$0.0819	985	13.67%	$92
6	$0.0844	985	13.67%	$94
7	$0.0869	985	13.67%	$97
8	$0.0895	985	13.67%	$100
9	$0.0922	985	13.67%	$103
10	$0.0950	985	13.67%	$106
11	$0.0978	985	13.67%	$110
12	$0.1008	985	13.67%	$113
13	$0.1038	985	13.67%	$116
14	$0.1069	985	13.67%	$120
15	$0.1101	985	13.67%	$123
16	$0.1134	985	13.67%	$127
17	$0.1168	985	13.67%	$131
18	$0.1203	985	13.67%	$135
19	$0.1239	985	13.67%	$139
20	$0.1276	985	13.67%	$143

TABLE 2 Consumed-Displaced-Conserved - Therms

1	2	3	4	Dryer [illegible]
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1	$0.8210	46	13.67%	$43
2	$0.8457	46	13.67%	$44
3	$0.8710	46	13.67%	$46
4	$0.8972	46	13.67%	$47
5	$0.9241	46	13.67%	$48
6	$0.9518	46	13.67%	$50
7	$0.9803	46	13.67%	$51
8	$1.0098	46	13.67%	$53
9	$1.0401	46	13.67%	$54
10	$1.0713	46	13.67%	$56
11	$1.1034	46	13.67%	$58
12	$1.1366	46	13.67%	$59
13	$1.1706	46	13.67%	$61
14	$1.2057	46	13.67%	$63
15	$1.2419	46	13.67%	$65
16	$1.2791	46	13.67%	$67
17	$1.3175	46	13.67%	$69
18	$1.3570	46	13.67%	$71
19	$1.3977	46	13.67%	$73
20	$1.4397	46	13.67%	$75

TABLE 3 Gas Customer Charge Dryer

1	2	3	4	5	6	7%+13.67%
Year	Cust. Chrg	Annual Cust. Chrg	Dryer Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1	$6.50	$78.00	46	423	10.87%	10
2	$6.70	$80.34	46	423	10.87%	10
3	$6.90	$82.75	46	423	10.87%	10
4	$7.10	$85.23	46	423	10.87%	11
5	$7.32	$87.79	46	423	10.87%	11
6	$7.54	$90.42	46	423	10.87%	11
7	$7.76	$93.14	46	423	10.87%	12
8	$7.99	$95.93	46	423	10.87%	12
9	$8.23	$98.81	46	423	10.87%	12
10	$8.48	$101.77	46	423	10.87%	13
11	$8.74	$104.83	46	423	10.87%	13
12	$9.00	$107.97	46	423	10.87%	13
13	$9.27	$111.21	46	423	10.87%	14
14	$9.55	$114.55	46	423	10.87%	14
15	$9.83	$117.98	46	423	10.87%	15
16	$10.13	$121.52	46	423	10.87%	15
17	$10.43	$125.17	46	423	10.87%	16
18	$10.74	$128.92	46	423	10.87%	16
19	$11.07	$132.79	46	423	10.87%	16
20	$11.40	$136.77	46	423	10.87%	17

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Propane Gas Rate Number Distribution Program Electric Rate Number

Gas Measure: Range Alternate Option: Range
Alt FuelType: Electric

Allowance: $75

Gas Utility: Chesapeake Utilities Corporation Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$600
2. Installation	182
Total Cust. Cost	$782
3. Utility Rebate	$75
4. Other Rebate	

II. Operating Data

1. Energy Factor	0.72

Therms Consumed	Winter	Summer	Total
2. Standard Rate	16.0	16.0	32.0
3. Seasonal Rate			0.0
Total	16.0	16.0	32.0

4. Electric Consumption in KWH	
5. O&M (excluding energy)	$8

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	7.57%
15. Average Life	19

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	$500
2. Installation	107
Total Cust. Cost	$607
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	1.00	1.00
2. Annual KWH	687	687
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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	$0.0728
12. Electric Rate per KW, Winter	$0.0000
13. Electric Rate per KW, Summer	$0.0000
14. Electric Taxes & Fees	13.67%
15.Customer Chg	$8.85

VI. Therms Displaced

1. Energy Factor	1.00

Therms Displaced	Winter	Summer
2. Standard Rate		
Total	0.0	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
1	$57	$0	$30	$12	$8	$7	$0	$0	$24	$0	$0	$0
2	$59	$0	$31	$12	$8	$7	0	0	$25	0	0	0
3	$60	$0	$32	$13	$8	$7	0	0	$26	0	0	0
4	$62	$0	$33	$13	$9	$7	0	0	$27	0	0	0
5	$64	$0	$34	$14	$9	$8	0	0	$27	0	0	0
6	$66	$0	$35	$14	$9	$8	0	0	$28	0	0	0
7	$68	$0	$36	$14	$10	$8	0	0	$29	0	0	0
8	$70	$0	$37	$15	$10	$8	0	0	$30	0	0	0
9	$72	$0	$38	$15	$10	$8	0	0	$31	0	0	0
10	$74	$0	$39	$16	$10	$9	0	0	$32	0	0	0
11	$76	$0	$40	$16	$11	$9	0	0	$33	0	0	0
12	$79	$0	$41	$17	$11	$9	0	0	$34	0	0	0
13	$81	$0	$43	$17	$11	$10	0	0	$35	0	0	0
14	$83	$0	$44	$18	$12	$10	0	0	$36	0	0	0
15	$86	$0	$45	$18	$12	$10	0	0	$37	0	0	0
16	$89	$0	$47	$19	$12	$10	0	0	$38	0	0	0
17	$91	$0	$48	$19	$13	$11	0	0	$39	0	0	0
18	$94	$0	$49	$20	$13	$11	0	0	$40	826	992	165
19	$97	$0	$51	$20	$14	$11	0	0	$41	0	0	0
20	$100	$0	$52	$21	$14	$12	0	0	$43	0	0	0
								Present Value of Benefits	$282		Present Value of Costs	$37
											Benefit/Cost Ratio	7.60

TABLE 1 Electric KW Cost Range

1	2	3	4	7*8=9
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1	$0.0728	667	13.67%	$57
2	$0.0750	667	13.67%	$59
3	$0.0772	667	13.67%	$60
4	$0.0795	667	13.67%	$62
5	$0.0819	667	13.67%	$64
6	$0.0844	667	13.67%	$66
7	$0.0869	667	13.67%	$68
8	$0.0895	667	13.67%	$70
9	$0.0922	667	13.67%	$72
10	$0.0950	667	13.67%	$74
11	$0.0979	667	13.67%	$76
12	$0.1008	667	13.67%	$79
13	$0.1038	667	13.67%	$81
14	$0.1069	667	13.67%	$83
15	$0.1101	667	13.67%	$86
16	$0.1134	667	13.67%	$89
17	$0.1168	667	13.67%	$91
18	$0.1203	667	13.67%	$94
19	$0.1239	667	13.67%	$97
20	$0.1276	667	13.67%	$100

TABLE 2 Consumed-Displaced-Conserved - Therms Range

1	2	3	4	7*8=9
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1	$0.8210	32	13.67%	$30
2	$0.8457	32	13.67%	$31
3	$0.8710	32	13.67%	$32
4	$0.8972	32	13.67%	$33
5	$0.9241	32	13.67%	$34
6	$0.9518	32	13.67%	$35
7	$0.9803	32	13.67%	$36
8	$1.0098	32	13.67%	$37
9	$1.0401	32	13.67%	$38
10	$1.0713	32	13.67%	$39
11	$1.1034	32	13.67%	$40
12	$1.1365	32	13.67%	$41
13	$1.1706	32	13.67%	$43
14	$1.2057	32	13.67%	$44
15	$1.2419	32	13.67%	$46
16	$1.2791	32	13.67%	$47
17	$1.3175	32	13.67%	$48
18	$1.3570	32	13.67%	$49
19	$1.3977	32	13.67%	$51
20	$1.4397	32	13.67%	$52

TABLE 3 Gas Customer Charge Range

1	2	3	4	5	6	7*8=13.67%
Year	Cust. Chrg	Annual Cust. Chrg	Range Annual Therms	Total Annual Therms	Ratio Therms Consistent to Total	Gas Customer Charge
1	$6.50	$78.00	32	423	7.57%	7
2	$6.70	$80.34	32	423	7.57%	7
3	$6.90	$82.75	32	423	7.57%	7
4	$7.10	$85.23	32	423	7.57%	7
5	$7.32	$87.79	32	423	7.57%	8
6	$7.54	$90.42	32	423	7.57%	8
7	$7.76	$93.14	32	423	7.57%	8
8	$7.99	$95.93	32	423	7.57%	8
9	$8.23	$98.81	32	423	7.57%	8
10	$8.48	$101.77	32	423	7.57%	9
11	$8.74	$104.83	32	423	7.57%	9
12	$9.00	$107.97	32	423	7.57%	9
13	$9.27	$111.21	32	423	7.57%	10
14	$9.55	$114.55	32	423	7.57%	10
15	$9.83	$117.98	32	423	7.57%	10
16	$10.13	$121.52	32	423	7.57%	10
17	$10.43	$125.17	32	423	7.57%	11
18	$10.74	$128.92	32	423	7.57%	11
19	$11.07	$132.79	32	423	7.57%	11
20	$11.40	$136.77	32	423	7.57%	12

Florida Division of Chesapeake Utilities
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	150	62.71	2.63

Rate Impact Measure Test Data

All Costs in 1998 dollars Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Water Heater Retention Program Gas Rate Number

Gas Measure: Water Heater 40 gallon Electric Rate Number

Alternate Option: Electric Resistance Water Heats 50 gallon

Alt.FuelType: Electric

Allowance: $150

Gas Utility: Chesapeake Utilities Corporation

Electric Utility: Tampa Electric Co.

	$
1. Avoided Meter Removal Cost	5
2. Avoided Cut & Cap Cost	35
Total Costs	40

II. Operating Data

1. Energy Factor	0.56

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101.0	67.0	168.0
3. Seasonal Rate			0.0
Total	101.0	67.0	168.0

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	39.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate	8.65%

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	$150
6. Program Cost	$16
7. New Customer Admin. Cost $/month	$0
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost

1. Load Profile Type

Gas Supply Cost $/Therm

2. Commodity (Annual)	$0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1.00
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	0.68	.68
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

1	Consumed Conserved Displaced Gas Therms Table 1 2 $	Gas Customer Charge Table 2 3 $	Avoid 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 $
1998	138	31	40	209	0	0	52	0	166	218
1999	142	32		174	0	0	54	0		54
2000	146	33		179	0	0	56	0		56
2001	151	34		185	0	0	57	0		57
2002	155	35		190	0	0	59	0		59
2003	160	36		196	0	0	61	0		61
2004	165	37		202	0	0	62	0		62
2005	170	38		208	0	0	64	0		64
2006	175	39		214	0	0	66	0		66
2007	180	40		220	0	0	68	0		68
2008	185	42		227	0	0	70	0		70
2009	191	43		234	0	0	72	0		72
2010	197	44		241	0	0	75	0		75
2011	203	45		248	0	0	77	0		77
2012	209	47		256	0	0	79	0		79
2013	215	48		263	0	0	82	0		82
2014	221	50		271	0	0	84	0		84
2015	228	51		279	0	0	87	0		87
2016	235	53		288	0	0	89	0		89
2017	242	54		296	0	0	92	0		92

Present Value of Benefits $2,000

Present Value of Costs $761

Benefit/Cost Ratio 2.63

Table 1

1	2	3	4	5	5*2
Year	Therms	Base Rate	PGA Rate	Total Rate	Therms * Total Rate
1998	168	0.43128	0.38977	0.82103	138
1999	168	0.44420	0.40146	0.84566	142
2000	168	0.45752	0.41350	0.87103	146
2001	168	0.47125	0.42591	0.89716	151
2002	168	0.48539	0.43869	0.92407	155
2003	168	0.49995	0.45185	0.95179	160
2004	168	0.51495	0.46540	0.98035	165
2005	168	0.53040	0.47936	1.00978	170
2006	168	0.54631	0.49374	1.04005	175
2007	168	0.56270	0.50856	1.07125	180
2008	168	0.57958	0.52381	1.10339	185
2009	168	0.59696	0.53953	1.13649	191
2010	168	0.61487	0.55571	1.17059	197
2011	168	0.63332	0.57239	1.20571	203
2012	168	0.65232	0.58956	1.24188	209
2013	168	0.67189	0.60724	1.27913	215
2014	168	0.69205	0.62546	1.31751	221
2015	168	0.71281	0.64422	1.35703	228
2016	168	0.73419	0.66355	1.39774	235
2017	168	0.75622	0.68346	1.43968	242

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.
1998	6.50	78	39.72%	$31
1999	6.70	80	39.72%	$32
2000	6.90	83	39.72%	$33
2001	7.10	85	39.72%	$34
2002	7.32	88	39.72%	$35
2003	7.54	90	39.72%	$36
2004	7.78	93	39.72%	$37
2005	7.99	96	39.72%	$38
2006	8.23	99	39.72%	$39
2007	8.48	102	39.72%	$40
2008	8.74	105	39.72%	$42
2009	9.00	108	39.72%	$43
2010	9.27	111	39.72%	$44
2011	9.55	115	39.72%	$45
2012	9.83	118	39.72%	$47
2013	10.13	122	39.72%	$48
2014	10.43	125	39.72%	$50
2015	10.74	129	39.72%	$51
2016	11.07	133	39.72%	$53
2017	11.40	137	39.72%	$54

Table 5

1	2	3	4	5	6	8	3*5*6+4*5+2*6)*7
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. C pacity Peaking & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	168	101	67	0.2252	0.0418	1.33	$52
1999	168	101	67	0.2318	0.0430	1.33	$54
2000	168	101	67	0.2387	0.0443	1.33	$56
2001	168	101	67	0.2459	0.0456	1.33	$57
2002	168	101	67	0.2533	0.0470	1.33	$59
2003	168	101	67	0.2609	0.0484	1.33	$61
2004	168	101	67	0.2687	0.0499	1.33	$62
2005	168	101	67	0.2768	0.0513	1.33	$64
2006	168	101	67	0.2851	0.0529	1.33	$66
2007	168	101	67	0.2936	0.0545	1.33	$68
2008	168	101	67	0.3024	0.0561	1.33	$70
2009	168	101	67	0.3115	0.0578	1.33	$72
2010	168	101	67	0.3209	0.0595	1.33	$75
2011	168	101	67	0.3305	0.0613	1.33	$77
2012	168	101	67	0.3404	0.0632	1.33	$79
2013	168	101	67	0.3506	0.0650	1.33	$82
2014	168	101	67	0.3611	0.0670	1.33	$84
2015	168	101	67	0.3720	0.0690	1.33	$87
2016	168	101	67	0.3831	0.0711	1.33	$89
2017	168	101	67	0.3946	0.0732	1.33	$92

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars Analysis Start Year: 1998 Number of Years: 20

Gas Program: Residential Water Heater Retention Program Gas Rate Number:

Gas Measure: Water Heater 40 gallons

Allowance: $150

Gas Utility: Chesapeake Utilities Corporation

Electric Rate Number:

Alternate Option: Electric Resistance Water Heater 60 gallon

Alt FuelType: Electric

Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$222
2. Installation	94
Total Cust. Cost	$316
3. Utility Rebate	$150
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	101.0	67.0	168.0
3. Seasonal Rate			0.0
Total	101.0	67.0	168.0

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

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$8.50
14. Ratio of Therms Consumed to Total	59.72%
15. Average Life	12

III. Common Gas & Electric Data

1. Discount Rate: 8.65%

IV. Installed Cost Data

	$
1. Equipment	$233
2. Installation	71
Total Cust. Cost	$304
3. Utility Allowance	$0
4. Other Allowance	

V. Energy Conserved Data

	New	Existing
1. Energy Factor	0.88	0.88
2. Annual KWH	3,222	3,222
3. Annual Oil Gallons	0	0
4. Annual Gas Therms	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		$0.0000
13. Electric Rate per KW, Summer		$0.0000
14. Electric Taxes & Fees		13.67%
15.Customer Chg		$8.85

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	$267	$0	$157	$9	$7	$35	$150	$0	$227	$304	$316	$12
1999	$275	$0	$161	$9	$7	$36	0	0	$79	0	0	0
2000	$283	$0	$166	$10	$7	$37	0	0	$81	0	0	0
2001	$291	$0	$171	$10	$8	$38	0	0	$84	0	0	0
2002	$300	$0	$176	$10	$8	$40	0	0	$86	0	0	0
2003	$309	$0	$182	$10	$8	$41	0	0	$89	0	0	0
2004	$318	$0	$187	$11	$8	$42	0	0	$92	0	0	0
2005	$328	$0	$193	$11	$9	$43	0	0	$94	0	0	0
2006	$338	$0	$199	$11	$9	$45	0	0	$97	0	0	0
2007	$348	$0	$205	$12	$9	$46	0	0	$100	0	0	0
2008	$358	$0	$211	$12	$9	$47	0	0	$103	0	0	0
2009	$369	$0	$217	$12	$10	$49	0	0	$106	0	0	0
2010	$380	$0	$224	$13	$10	$50	0	0	$109	0	0	0
2011	$392	$0	$230	$13	$10	$52	0	0	$113	0	325	325
2012	$403	$0	$237	$14	$11	$53	0	0	$116	0	0	0
2013	$415	$0	$244	$14	$11	$55	0	0	$119	363	0	(363)
2014	$428	$0	$252	$14	$11	$57	0	0	$123	0	0	0
2015	$441	$0	$259	$15	$12	$58	0	0	$127	0	0	0
2016	$454	$0	$267	$15	$12	$60	0	0	$130	0	0	0
2017	$468	$0	$275	$16	$12	$62	0	0	$134	0	0	0
								Present Value of Benefits	$1,028		Present Value of Costs	$16

Benefit/Cost Ratio	62.71

TABLE 1

1	2	3	4	3*4
Year	IGNH Cost	Annual IGNH	Tax & Fees	Monthly Cost
1998	$0.0726	3,222	13.67%	$267
1999	$0.0750	3,222	13.67%	$275
2000	$0.0773	3,222	13.67%	$283
2001	$0.0795	3,222	13.67%	$291
2002	$0.0819	3,222	13.67%	$300
2003	$0.0844	3,222	13.67%	$309
2004	$0.0869	3,222	13.67%	$318
2005	$0.0895	3,222	13.67%	$328
2006	$0.0922	3,222	13.67%	$338
2007	$0.0950	3,222	13.67%	$348
2008	$0.0979	3,222	13.67%	$358
2009	$0.1008	3,222	13.67%	$369
2010	$0.1038	3,222	13.67%	$380
2011	$0.1069	3,222	13.67%	$392
2012	$0.1101	3,222	13.67%	$403
2013	$0.1133	3,222	13.67%	$415
2014	$0.1168	3,222	13.67%	$428
2015	$0.1203	3,222	13.67%	$441
2016	$0.1239	3,222	13.67%	$454
2017	$0.1277	3,222	13.67%	$468

TABLE 2

1	2	3	4	3*4
Year	Therm Cost	Annual Therms	Tax Fees	Gas Cost
1998	$0.6210	169	13.67%	$107
1999	$0.6457	169	13.67%	$101
2000	$0.6710	169	13.67%	$109
2001	$0.6972	169	13.67%	$171
2002	$0.7241	169	13.67%	$176
2003	$0.7518	169	13.67%	$183
2004	$0.7803	169	13.67%	$187
2005	$1.0098	169	13.67%	$189
2006	$1.0401	169	13.67%	$199
2007	$1.0713	169	13.67%	$206
2008	$1.1034	169	13.67%	$211
2009	$1.1365	169	13.67%	$217
2010	$1.1706	169	13.67%	$224
2011	$1.2057	169	13.67%	$230
2012	$1.2419	169	13.67%	$237
2013	$1.2791	169	13.67%	$244
2014	$1.3175	169	13.67%	$252
2015	$1.3570	169	13.67%	$259
2016	$1.3977	169	13.67%	$267
2017	$1.4397	169	13.67%	$275

TABLE 3

1	2	3	4	5	6	7*(1-13.67%)
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Add. Ht Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	6.50	78	169	423	39.72%	$35
1999	6.70	80	169	423	39.72%	$38
2000	6.90	83	169	423	39.72%	$37
2001	7.10	85	169	423	39.72%	$38
2002	7.32	88	169	423	39.72%	$40
2003	7.54	90	169	423	39.72%	$41
2004	7.76	93	169	423	39.72%	$42
2005	7.99	96	169	423	39.72%	$43
2006	8.23	99	169	423	39.72%	$45
2007	8.48	102	169	423	39.72%	$46
2008	8.74	105	169	423	39.72%	$47
2009	9.00	108	169	423	39.72%	$49
2010	9.27	111	169	423	39.72%	$50
2011	9.55	115	169	423	39.72%	$52
2012	9.83	118	169	423	39.72%	$53
2013	10.13	122	169	423	39.72%	$55
2014	10.43	125	169	423	39.72%	$57
2015	10.74	129	169	423	39.72%	$58
2016	11.07	133	169	423	39.72%	$60
2017	11.40	137	169	423	39.72%	$62

Florida Division of Chesapeake Utilities
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
Triathlon/Equivalent	1200	1.38	1.85

Rate Impact Measure Test Data

All Costs in: 1996 dollars
Number of Years: 20
Analysis Start Year: 1996
Gas Program: Natural Gas Space Conditioning for Residential Homes
Gas Rate Number:
Electric Rate Number:
Gas Measure: Trial/Equivalent Unit
Alternate Option: 3.5 Ton Heat Pump
Alt.FuelType: Electric
Allowance: $1200
Gas Utility: Chesapeake Utilities Corporation
Electric Utility: Tampa Electric

	$
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	0.43126
7. Base, Summer	0.43126
8. Seasonal, Winter	0.21563
9. Seasonal, Summer	0.36977
10. PGA, Winter	0.36977
11. PGA, Summer	13.67%
12. Taxes & Fees	$6.50
13. Customer Chg	1
14. Ratio of Therms Consumed to Total	
15. Average Life	

III. Common Gas & Electric Data

1. Discount Rate 8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	114
3. Service	384
4. Meter	205
Total Cust. Cost	728
5. Utility Allowance	1200
6. Program Cost	48
7. New Customer Admin. Cost $/month	2
8. Main O&M (Percent)	2.04%

V. Gas Supply Cost
1. Load Profile Type

Gas Supply Cost $/Therm	
2. Commodity (Annual)	0.225041
3. Winter Multiple:	1.33
4. Summer Multiplier	1
5. Transportation, Capacity, Peaking and Balancing Cost	0.04175

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

1	Consumed Conserved Displaced Gas Therms Table 1 2	Gas Customer Charge Table 2 3	Total Columns 2 thru 3 4	Carrying Chg. On Main, Svc. & Meter Table 3 5	New Customer Admin. & Facilities O&M Table 4 6	Gas Supply Cost Table 5 7	Program & Allowance Cost 8	Cooling Total Columns 6 thru 9 9
$	$	$	$	$	$	$	$	$
1998	614	78	692	55	28	249	1248	1524
1999	633	80	713	53	29	256		285
2000	652	83	735	51	29	264		292
2001	671	85	756	49	30	272		301
2002	692	88	780	47	30	280		310
2003	712	90	802	45	31	288		319
2004	734	93	827	43	32	297		329
2005	756	96	852	41	33	306		339
2006	778	99	877	39	33	315		348
2007	802	102	904	37	34	324		358
2008	826	105	931	35	35	334		369
2009	851	108	959	33	36	344		380
2010	876	111	987	31	37	354		391
2011	902	115	1017	30	38	365		403
2012	929	118	1047	28	40	376		415
2013	957	122	1079	26	40	387		428
2014	986	125	1111	24	41	399		440
2015	1016	129	1145	22	42	411		453
2016	1046	133	1179	20	43	423		466
2017	1077	137	1214	18	45	436		481

Present Value of Benefits	$8,044	Present Value of Costs	$4,345
		Benefit/Cost Ratio	1.85

Table 1

Cooling

1	3	4	5		6	6*7=2
Year	Therms	Base Rate	PGA Rate	STS Base rate	321.3 Therm Rate	Therms * Total Rate
1998	321.5679	43128/.21588	0.38877	0.60537	0.82102	814
1999	321.5679	43128/.21588	0.40146	0.62353	0.84566	833
2000	321.5679	43128/.21588	0.41350	0.64223	0.87103	852
2001	321.5679	43128/.21588	0.42597	0.66150	0.89716	871
2002	321.5679	43128/.21588	0.43891	0.68135	0.92407	892
2003	321.5679	43128/.21588	0.45185	0.70179	0.95179	712
2004	321.5679	43128/.21588	0.46540	0.72284	0.98035	734
2005	321.5679	43128/.21588	0.47936	0.74452	1.00976	756
2006	321.5679	43128/.21588	0.49374	0.76686	1.04005	778
2007	321.5679	43128/.21588	0.50856	0.78987	1.07125	802
2008	321.5679	43128/.21588	0.52381	0.81358	1.10339	826
2009	321.5679	43128/.21588	0.53953	0.83797	1.13649	851
2010	321.5679	43128/.21588	0.55571	0.86311	1.17058	876
2011	321.5679	43128/.21588	0.57239	0.88900	1.20571	902
2012	321.5679	43128/.21588	0.58956	0.91567	1.24188	929
2013	321.5679	43128/.21588	0.60724	0.94314	1.27913	957
2014	321.5679	43128/.21588	0.62546	0.97144	1.31751	986
2015	321.5679	43128/.21588	0.64422	1.00058	1.35703	1016
2016	321.5679	43128/.21588	0.66355	1.03060	1.39774	1046
2017	321.5679	43128/.21588	0.68346	1.06151	1.43968	1077

Table 2

Cooling

1	2	3	4	4*3
Year	Customer Charge/Adv	Annual Cust. Chg	Ratio of Therms Consumed To Total	Ratio * Annual Cust. Chg
1998	6.50	78.00	1	78
1999	6.70	80.34	1	80
2000	6.90	82.75	1	83
2001	7.10	85.23	1	85
2002	7.32	87.78	1	88
2003	7.54	90.42	1	90
2004	7.76	93.14	1	93
2005	7.99	95.93	1	96
2006	8.23	98.81	1	99
2007	8.48	101.77	1	102
2008	8.74	104.83	1	105
2009	9.00	107.97	1	108
2010	9.27	111.21	1	111
2011	9.55	114.55	1	115
2012	9.83	117.98	1	118
2013	10.13	121.52	1	122
2014	10.43	125.17	1	125
2015	10.74	128.93	1	129
2016	11.07	132.79	1	133
2017	11.40	136.77	1	137

Table 3

Cooling

1	2	3	4	5	6	7	8	7*8*9
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Debt	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
1998	25	114	384	355	7.57%	728	1	55
1999	24	110	371	187	7.57%	702	1	53
2000	23	106	358	169	7.57%	678	1	51
2001	22	102	345	161	7.57%	650	1	49
2002	21	98	332	173	7.57%	624	1	47
2003	20	94	319	165	7.57%	598	1	45
2004	19	90	306	157	7.57%	572	1	43
2005	18	86	293	149	7.57%	546	1	41
2006	17	82	280	141	7.57%	520	1	39
2007	-	78	267	133	7.57%	494	1	37
2008	15	74	254	125	7.57%	468	1	35
2009	14	70	241	117	7.57%	442	1	33
2010	13	66	228	109	7.57%	416	1	31
2011	12	62	215	101	7.57%	390	1	30
2012	11	58	202	93	7.57%	364	1	28
2013	10	54	189	85	7.57%	338	1	26
2014	9	50	176	77	7.57%	312	1	24
2015	8	46	163	69	7.57%	286	1	22
2016	7	42	150	61	7.57%	260	1	20
2017	6	38	137	54	7.57%	235	1	18

Table 4

Cooling

1	2	3	4	5	6	7	8	6*7*8+5*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
1998	2	25	114	25	139	2.84	1	38
1999	2	26	110	24	134	2.84	1	39
2000	2	26	106	23	129	2.84	1	39
2001	2	27	102	23	125	2.84	1	38
2002	2	28	98	22	120	2.84	1	36
2003	2	29	94	21	115	2.84	1	31
2004	2	30	90	20	110	2.84	1	32
2005	3	31	86	20	106	2.84	1	33
2006	3	31	82	19	101	2.84	1	33
2007	3	32	78	18	96	2.84	1	34
2008	3	33	74	18	92	2.84	1	35
2009	3	34	70	17	87	2.84	1	36
2010	3	35	66	17	83	2.84	1	37
2011	3	36	62	16	78	2.84	1	38
2012	3	38	58	16	74	2.84	1	40
2013	3	39	54	15	69	2.84	1	40
2014	3	40	50	15	65	2.84	1	41
2015	3	41	46	14	60	2.84	1	42
2016	4	42	42	14	56	2.84	1	43
2017	4	44	38	13	51	2.84	1	45

Table 5

Cooling

1	2	3	4	5	6	7	22
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transp. Capacity Pretiing & Bal. Cost	Winter Multiplier	Gas Supply Cost
1998	801	112	789	0.2250	0.0418	1.33	308
1999	801	112	789	0.2318	0.0430	1.33	316
2000	801	112	789	0.2387	0.0443	1.33	324
2001	801	112	789	0.2459	0.0456	1.33	272
2002	801	112	789	0.2533	0.0470	1.33	380
2003	801	112	789	0.2609	0.0484	1.33	356
2004	801	112	789	0.2687	0.0498	1.33	367
2005	801	112	789	0.2768	0.0513	1.33	306
2006	801	112	789	0.2851	0.0529	1.33	316
2007	801	112	789	0.2936	0.0545	1.33	324
2008	801	112	789	0.3024	0.0561	1.33	334
2009	801	112	788	0.3115	0.0578	1.33	344
2010	801	112	788	0.3208	0.0595	1.33	354
2011	801	112	788	0.3305	0.0613	1.33	365
2012	801	112	788	0.3404	0.0632	1.33	376
2013	801	112	788	0.3508	0.0650	1.33	387
2014	801	112	788	0.3611	0.0670	1.33	399
2015	801	112	788	0.3720	0.0690	1.33	411
2016	801	112	788	0.3831	0.0711	1.33	423
2017	801	112	788	0.3946	0.0732	1.33	436

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars | Analysis Start Year: 1998 | Number of Years: 20

Gas Program: Natural Gas Space Conditioning for Residential Homes | Gas Rate Number: | Electric Rate Number:

Gas Measure: Trial/Non/Equivalent Unit | Alternate Option: 3.5 Ton Heat Pump
Alt.FuelType: Electric

Allowance: $1,200

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric Co.

I. Installed Cost Data

	$
1. Equipment	$4,150
2. Installation	2,846
Total Cust. Cost	$6,996
3. Utility Rebate	$1,200
4. Other Rebate	

II. Operating Data

1. Energy Factor

Therms Consumed	Winter	Summer	Total
2. Standard Rate	112	210	322
3. Seasonal Rate	0	579	579
Total	112	789	901

4. Electric Consumption in KWH	900
5. O&M (excluding energy)	$150

Gas Rates	Rate
6. Base, Winter	$0.43126
7. Base, Summer	$0.43126
8. Seasonal, Winter	
9. Seasonal, Summer	0.21563
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$6.50
14. Ratio of Therms Consumed to Total	100.00%
15. Average Life	20

III. Common Gas & Electric Data

1. Discount Rate	8.65%

IV. Installed Cost Data

	$
1. Equipment	$1,780
2. Installation	1,275
Total Cust. Cost	$3,055
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
5. Diversified KW		
6. Billing KW		
7. O&M (excluding energy		$17
8. Monthly Utility Incentive		$0
9. Average Life in Yrs		12
10. Existing Remaining Life in Yrs		0
11. Electric Rate per KWH		$0.0728
12. Electric Rate per KW, Winter		$0.0000
13. Electric Rate per KW, Summer		$0.0000
14. Electric Taxes & Fees		13.67%
15.Customer Chg		$8.85

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
1998	$1,234	$0	$773	$17	$150	$89	$1,200	$0	$1,439	$3,055	$6,996	$3,941
1999	$1,271	$0	$796	$17	$155	$91	0	0	$246	0	0	0
2000	$1,309	$0	$820	$18	$159	$94	0	0	$254	0	0	0
2001	$1,348	$0	$845	$18	$164	$97	0	0	$261	0	0	0
2002	$1,389	$0	$870	$19	$169	$100	0	0	$269	0	0	0
2003	$1,431	$0	$896	$19	$174	$103	0	0	$277	0	0	0
2004	$1,473	$0	$923	$20	$179	$106	0	0	$285	0	0	0
2005	$1,518	$0	$951	$20	$184	$109	0	0	$294	0	0	0
2006	$1,563	$0	$979	$21	$190	$112	0	0	$303	0	0	0
2007	$1,610	$0	$1,009	$22	$196	$116	0	0	$312	0	0	0
2008	$1,658	$0	$1,039	$22	$202	$119	0	0	$321	0	0	0
2009	$1,708	$0	$1,070	$23	$208	$123	0	0	$331	0	0	0
2010	$1,759	$0	$1,102	$24	$214	$126	0	0	$341	0	0	0
2011	$1,812	$0	$1,135	$24	$220	$130	0	0	$351	2,614	0	(2,614)
2012	$1,867	$0	$1,169	$25	$227	$134	0	0	$362	0	0	0
2013	$1,923	$0	$1,204	$26	$234	$138	0	0	$372	0	0	0
2014	$1,980	$0	$1,240	$27	$241	$142	0	0	$384	0	0	0
2015	$2,040	$0	$1,278	$28	$248	$147	0	0	$395	0	0	0
2016	$2,101	$0	$1,316	$28	$255	$151	0	0	$407	0	0	0
2017	$2,164	$0	$1,355	$29	$263	$155	0	0	$419	0	0	0
								Present Value of Benefits	$3,881		Present Value of Costs	$2,809
											Benefit/Cost Ratio	1.38

TABLE 1 — Cooling

1	2	3	4	2*3*4
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost
1998	$0.0738	14,912	13.87%	$1,234
1999	$0.0760	14,912	13.87%	$1,271
2000	$0.0772	14,912	13.87%	$1,309
2001	$0.0790	14,912	13.87%	$1,348
2002	$0.0818	14,912	13.87%	$1,389
2003	$0.0844	14,912	13.87%	$1,431
2004	$0.0869	14,912	13.87%	$1,475
2005	$0.0896	14,912	13.87%	$1,518
2006	$0.0922	14,912	13.87%	$1,603
2007	$0.0950	14,912	13.87%	$1,610
2008	$0.0978	14,912	13.87%	$1,658
2009	$0.1008	14,912	13.87%	$1,708
2010	$0.1036	14,912	13.87%	$1,759
2011	$0.1069	14,912	13.87%	$1,812
2012	$0.1101	14,912	13.87%	$1,867
2013	$0.1134	14,912	13.87%	$1,923
2014	$0.1167	14,912	13.87%	$1,980
2015	$0.1203	14,912	13.87%	$2,040
2016	$0.1239	14,912	13.87%	$2,101
2017	$0.1277	14,912	13.87%	$2,164

TABLE 2 — Cooling

1	2	3	4	5	6	7	8	9	10	[illegible]
Year	Therm Cost	Load Est Therms	Tax Fees	Winter Therms	1st 30 Therms/mo	Therm Cost	Short-load enhance	Electric KWH	$ per KWH	Gas Cost
1998	$0.6004	579	13.87%	112	210	0.82103	264	900	0.0738	$773
1999	$0.6238	579	13.87%	112	210	0.84888	272	900	0.0760	$796
2000	$0.6423	579	13.87%	112	210	0.87103	280	900	0.0772	$820
2001	$0.6615	579	13.87%	112	210	0.89718	288	900	0.0795	$845
2002	$0.6814	579	13.87%	112	210	0.92407	297	900	0.0818	$870
2003	$0.7016	579	13.87%	112	210	0.95179	306	900	0.0844	$896
2004	$0.7229	579	13.87%	112	210	0.98035	315	900	0.0869	$923
2005	$0.7446	579	13.87%	112	210	1.00976	325	900	0.0896	$951
2006	$0.7669	579	13.87%	112	210	1.04005	334	900	0.0922	$979
2007	$0.7899	579	13.87%	112	210	1.07125	344	900	0.0950	$1,009
2008	$0.8136	579	13.87%	112	210	1.10339	355	900	0.0978	$1,039
2009	$0.8380	579	13.87%	112	210	1.13649	365	900	0.1008	$1,070
2010	$0.8632	579	13.87%	112	210	1.17059	376	900	0.1038	$1,102
2011	$0.8890	579	13.87%	112	210	1.20571	388	900	0.1069	$1,135
2012	$0.9157	579	13.87%	112	210	1.24188	399	900	0.1101	$1,169
2013	$0.9432	579	13.87%	112	210	1.27913	411	900	0.1134	$1,204
2014	$0.9715	579	13.87%	112	210	1.31751	424	900	0.1168	$1,240
2015	$1.0006	579	13.87%	112	210	1.35703	436	900	0.1203	$1,278
2016	$1.0306	579	13.87%	112	210	1.39774	449	900	0.1239	$1,316
2017	$1.0616	579	13.87%	112	210	1.43968	463	900	0.1277	$1,355

TABLE 3 — Cooling

1	2	3	4	5	6	[illegible]13.87%
Year	Monthly Cust. Chrg	Annual Cust. Chrg	Cooling Annual Therms	Total Annual Therms	Ratio Therms Consumed to Total	Gas Customer Charge
1998	$6.50	$78.00	789	901	100.00%	$88
1999	$6.70	$80.34	789	901	100.00%	$91
2000	$6.90	$82.75	789	901	100.00%	$94
2001	$7.10	$85.23	789	901	100.00%	$97
2002	$7.32	$87.79	789	901	100.00%	$100
2003	$7.54	$90.42	789	901	100.00%	$103
2004	$7.76	$93.14	789	901	100.00%	$106
2005	$7.99	$95.93	789	901	100.00%	$109
2006	$8.23	$98.81	789	901	100.00%	$112
2007	$8.48	$101.77	789	901	100.00%	$116
2008	$8.74	$104.83	789	901	100.00%	$119
2009	$9.00	$107.97	789	901	100.00%	$123
2010	$9.27	$111.21	789	901	100.00%	$126
2011	$9.55	$114.55	789	901	100.00%	$130
2012	$9.83	$117.98	789	901	100.00%	$134
2013	$10.13	$121.52	789	901	100.00%	$138
2014	$10.43	$125.17	789	901	100.00%	$142
2015	$10.74	$128.92	789	901	100.00%	$147
2016	$11.07	$132.79	789	901	100.00%	$151
2017	$11.40	$136.77	789	901	100.00%	$156

Florida Division of Chesapeake Utilities
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	1.45

Rate Impact Measure Test Data

All Costs in: 1998 dollars. Number of Years: 20

Gas Program: Natural Gas Space Conditioning. Analysis Start Year: 1998. Gas Rate Number. Electric Rate Number.

Gas Measure: Engine Driven Chiller 600 Ton. Alternate Option: Electric Driven Chiller. Alt FuelType: Electric.

Allowance: $60/TON

Gas Utility: Chesapeake Utilities Corporation. Electric Utility: Tampa Electric

	$
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	0.07348
7. Base, Summer	0.07348
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	40
14. Ratio of Therms Consumed to Total	1
15. Average Life	20

III. Common Gas & Electric Data

1. Discount Rate 8.65%

IV. New Customer Installation Costs

	$
1. Supply Main	25
2. Development Main	0
3. Service	785
4. Meter	4230
Total Cust. Cost	5020
5. Utility Allowance	25000
6. Program Cost	48
7. New Customer Admin. Cost $/month	2
8. Main O&M (Percent)	0.0204

V. Gas Supply Cost

1. Load Profile Type

	Gas Supply Cost $/Therm
2. Commodity (Annual)	0.2250
3. Winter Multiplier	1.33
4. Summer Multiplier	1
5. Transportation, Capacity, Peaking and Balancing Cos	0.04175

System Shrinkage

VI. Therms Conserved

	New	Existing
1. Energy Factor	8.1	
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			
2. Consumed New			

DOCKET NO.

EXHIBIT F
PAGE 3 of 7

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	Total Columns 6 thru 9
1	2	3	4	5	6	7	8	9
$	$	$	$	$	$	$	$	$
1998	58230	480	58710	380	26	38212	25000	63618
1999	59977	494	60471	364	26	39359		39749
2000	61776	509	62286	349	26	40540		40915
2001	63630	525	64154	334	27	41756		42117
2002	65539	540	66079	320	28	43009		43357
2003	67505	556	68061	307	29	44299		44635
2004	69530	573	70103	294	30	45628		45952
2005	71616	590	72206	282	31	46997		47309
2006	73764	608	74372	270	31	48406		48707
2007	75977	626	76603	258	32	49859		50149
2008	78256	645	78901	247	33	51354		51635
2009	80604	664	81269	237	34	52895		53166
2010	83022	684	83707	227	35	54482		54744
2011	85513	705	86218	217	36	56116		56370
2012	88078	726	88804	208	38	57800		58046
2013	90721	748	91468	199	39	59534		59772
2014	93442	770	94212	191	40	61320		61551
2015	96245	793	97039	183	41	63159		63383
2016	99133	817	99950	175	42	65054		65271
2017	102107	842	102949	167	44	67006		67217

Present Value of Benefits $681,997

Present Value of Costs $469,909

Benefit/Cost Ratio	1.45

Table 1

1	2	3	4
Year	Therms	Fuel Rate	Total Rate
1998	125700	0.4832	94230.11
1999	125700	0.4771	98877.01
2000	125700	0.4815	91776.32
2001	125700	0.5062	63629.81
2002	125700	0.5214	65538.50
2003	125700	0.5379	67594.86
2004	125700	0.5531	69528.89
2005	125700	0.5697	71615.69
2006	125700	0.5868	73764.16
2007	125700	0.6044	75977.09
2008	125700	0.6226	78256.40
2009	125700	0.6412	80604.09
2010	125700	0.6605	83022.21
2011	125700	0.6803	85512.88
2012	125700	0.7007	88078.27
2013	125700	0.7217	90720.61
2014	125700	0.7434	93442.23
2015	125700	0.7657	96245.50
2016	125700	0.7888	99132.86
2017	125700	0.8123	102106.85

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.
1998	40	480	100.00%	480
1999	41	494	100.00%	494
2000	42	509	100.00%	509
2001	44	525	100.00%	525
2002	45	540	100.00%	540
2003	46	556	100.00%	556
2004	48	573	100.00%	573
2005	49	590	100.00%	590
2006	51	608	100.00%	608
2007	52	626	100.00%	626
2008	54	645	100.00%	645
2009	55	664	100.00%	664
2010	57	684	100.00%	684
2011	59	705	100.00%	705
2012	61	726	100.00%	726
2013	62	748	100.00%	748
2014	64	770	100.00%	770
2015	66	793	100.00%	793
2016	69	817	100.00%	817
2017	70	842	100.00%	842

Table 3

Cooling

1	2	3	4	5	6	7	8	7*8
Year	Supply Main	Development Main	Service Line	Meter	Avg Cost of Distr	Customer Cost	Ratio of Therms Consumed To Total	Carrying Chg Mains & Svc
1998	25	0	700	4250	7.57%	8,829.01	1	389
1999	24	0	740	4046	7.57%	4,808.74	1	364
2000	23	0	715	3670	7.57%	4,808.30	1	348
2001	22	0	662	3791	7.57%	4,415.01	1	334
2002	21	0	699	3040	7.57%	4,229.80	1	320
2003	20	0	647	3368	7.57%	4,053.24	1	307
2004	19	0	625	3238	7.57%	3,882.60	1	294
2005	18	0	605	3096	7.57%	3,718.75	1	282
2006	17	0	585	2960	7.57%	3,562.21	1	270
2007	16	0	566	2830	7.57%	3,412.97	1	258
2008	15	0	547	2706	7.57%	3,288.66	1	247
2009	14	0	529	2587	7.57%	3,128.82	1	237
2010	13	0	511	2473	7.57%	2,997.39	1	227
2011	12	0	495	2364	7.57%	2,870.24	1	217
2012	11	0	478	2259	7.57%	2,748.24	1	208
2013	10	0	462	2159	7.57%	2,631.15	1	199
2014	9	0	447	2063	7.57%	2,518.77	1	191
2015	8	0	432	1970	7.57%	2,410.90	1	183
2016	7	0	418	1882	7.57%	2,307.34	1	175
2017	6	0	404	1798	7.57%	2,207.82	1	167

Table 4

1	2	3	4	5	6	7	8	5*7+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
1998	2	23	0	23	23	2.04	1	35
1999	2	24	0	24	24	2.04	1	36
2000	2	25	0	23	23	2.04	1	35
2001	2	27	0	22	22	2.04	1	33
2002	2	28	0	21	21	2.04	1	32
2003	2	29	0	20	20	2.04	1	30
2004	2	30	0	19	19	2.04	1	29
2005	3	31	0	18	18	2.04	1	31
2006	3	31	0	17	17	2.04	1	31
2007	3	32	0	16	16	2.04	1	32
2008	3	33	0	15	15	2.04	1	33
2009	3	34	0	14	14	2.04	1	34
2010	3	35	0	13	13	2.04	1	35
2011	3	36	0	12	12	2.04	1	36
2012	3	38	0	11	11	2.04	1	38
2013	3	39	0	10	10	2.04	1	39
2014	3	40	0	9	9	2.04	1	40
2015	3	41	0	8	8	2.04	1	41
2016	4	42	0	7	7	2.04	1	42
2017	4	44	0	6	6	2.04	1	44

Table 5

Cooling

1	2	3	4	5	6	7	32
Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Therms Capacity Peaking & Bal Cost	Winter Multiplier	Gas Supply Cost
1998	125700	62850	62850	0.2200	0.0418	1.33	36212
1999	125700	62850	62850	0.2318	0.0436	1.33	38559
2000	125700	62850	62850	0.2367	0.0443	1.33	40040
2001	125700	62850	62850	0.2409	0.0456	1.33	41756
2002	125700	62850	62850	0.2533	0.0476	1.33	43809
2003	125700	62850	62850	0.2658	0.0494	1.33	44289
2004	125700	62850	62850	0.2687	0.0499	1.33	45828
2005	125700	62850	62850	0.2768	0.0513	1.33	46997
2006	125700	62850	62850	0.2851	0.0528	1.33	48406
2007	125700	62850	62850	0.2836	0.0545	1.33	49859
2008	125700	62850	62850	0.3024	0.0561	1.33	51304
2009	125700	62850	62850	0.3115	0.0579	1.33	53005
2010	125700	62850	62850	0.3209	0.0595	1.33	54682
2011	125700	62850	62850	0.3305	0.0613	1.33	56516
2012	125700	62850	62850	0.3404	0.0632	1.33	57909
2013	125700	62850	62850	0.3506	0.0650	1.33	59834
2014	125700	62850	62850	0.3611	0.0670	1.33	61325
2015	125700	62850	62850	0.3720	0.0690	1.33	63159
2016	125700	62850	62850	0.3831	0.0711	1.33	65004
2017	125700	62850	62850	0.3946	0.0732	1.33	67016

Participants Cost Effectiveness Test Data

DOCKET No

All Costs in 1998 dollars Analysis Start Year 1998 Number of Years 20

Gas Program: Natural Gas Space Conditioning | Gas Rate Number: | Electric Rate Number:

Gas Measure: Two Engine Driven Chiller | Alternate Option: Electric Driven Chiller | Alt Fuel Type: Electric

Allowances: $50/ton

Gas Utility: Chesapeake Utilities Corporation | Electric Utility: Tampa Electric Co.

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 Consumed	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	$0.07348
7. Base, Summer	$0.07348
8. Seasonal, Winter	
9. Seasonal, Summer	
10. PGA, Winter	0.38977
11. PGA, Summer	0.38977
12. Taxes & Fees	13.67%
13. Customer Chg	$40.00
14. Ratio of Therms Consumed to Total	100.00%
15. Average Life	20

III. Common Gas & Electric Data

1. Discount Rate	8.65%

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 Gallons	0	0
4. Annual Gas Therms	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	$0.0458
12. Electric Rate per KW, Winter	$7.2500
13. Electric Rate per KW, Summer	$7.2500
14. Electric Taxes & Fees	13.67%
15. Customer Chg	$35.00

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.

Year	Electric KWH Cost Table 1	Motor 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	$85,107	$3,000	$66,190	$1,050	$5,550	$480	$25,000	$0	$35,937	$210,363	$290,000	$79,637
1999	$86,747	$3,000	$68,176	$1,082	$5,717	$494	0	0	$10,442	0	0	0
2000	$88,436	$3,000	$70,221	$1,114	$5,888	$509	0	0	$9,932	0	0	0
2001	$90,176	$3,000	$72,328	$1,147	$6,065	$525	0	0	$9,406	0	0	0
2002	$91,967	$3,000	$74,498	$1,182	$6,247	$540	0	0	$8,865	0	0	0
2003	$93,813	$3,000	$76,733	$1,217	$6,434	$556	0	0	$8,307	0	0	0
2004	$95,714	$3,000	$79,035	$1,254	$6,627	$573	0	0	$7,733	0	0	0
2005	$97,672	$3,000	$81,406	$1,291	$6,826	$590	0	0	$7,141	0	0	0
2006	$99,688	$3,000	$83,848	$1,330	$7,031	$608	0	0	$6,532	0	0	0
2007	$101,766	$3,000	$86,363	$1,370	$7,241	$626	0	0	$5,905	0	0	0
2008	$103,905	$3,000	$88,954	$1,411	$7,459	$645	0	0	$5,258	0	0	0
2009	$106,109	$3,000	$91,623	$1,453	$7,682	$664	0	0	$4,593	0	0	0
2010	$108,378	$3,000	$94,371	$1,497	$7,913	$684	0	0	$3,907	0	0	0
2011	$110,716	$3,000	$97,202	$1,542	$8,150	$705	0	0	$3,201	0	0	0
2012	$113,124	$3,000	$100,119	$1,588	$8,395	$726	0	0	$2,473	0	0	0
2013	$115,605	$3,000	$103,122	$1,636	$8,647	$748	0	0	$1,724	0	0	0
2014	$118,159	$3,000	$106,216	$1,685	$8,906	$770	0	0	$952	0	0	0
2015	$120,790	$3,000	$109,402	$1,735	$9,173	$793	0	0	$157	0	0	0
2016	$123,501	$3,000	$112,684	$1,788	$9,449	$817	0	0	($662)	0	0	0
2017	$126,292	$3,000	$116,065	$1,841	$9,732	$842	0	0	($1,505)	0	0	0

Present Value of Benefits	$88,148	Present Value of Costs	$73,297

Benefit/Cost Ratio	1.20

TABLE 1 Cooling

1	2	3	4	[illegible]	6
Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost	Demand * Billing KW
1998	$0.0464	1,050,000	13.67%	$68,107	30450
1999	$0.0472	1,050,000	13.67%	$98,747	30450
2000	$0.0480	1,050,000	13.67%	$86,436	30450
2001	$0.0500	1,050,000	13.67%	$92,178	30450
2002	$0.0515	1,050,000	13.67%	$91,867	30450
2003	$0.0531	1,050,000	13.67%	$93,813	30450
2004	$0.0547	1,050,000	13.67%	$95,714	30450
2005	$0.0563	1,050,000	13.67%	$97,572	30450
2006	$0.0580	1,050,000	13.67%	$99,588	30450
2007	$0.0598	1,050,000	13.67%	$101,799	30450
2008	$0.0615	1,050,000	13.67%	$103,805	30450
2009	$0.0634	1,050,000	13.67%	$106,108	30450
2010	$0.0653	1,050,000	13.67%	$108,378	30450
2011	$0.0673	1,050,000	13.67%	$110,718	30450
2012	$0.0693	1,050,000	13.67%	$113,134	30450
2013	$0.0713	1,050,000	13.67%	$115,606	30450
2014	$0.0736	1,050,000	13.67%	$118,109	30450
2015	$0.0757	1,050,000	13.67%	$120,790	30450
2016	$0.0780	1,050,000	13.67%	$123,501	30450
2017	$0.0803	1,050,000	13.67%	$126,392	30450

TABLE 2 Cooling

1	2	3	4	[illegible]	6
Year	Therm Cost	# Therms	Tax Fees	Gas Cost	Oil Consumption
1998	$0.4653	125,700	13.67%	$66,160	$3,000
1999	$0.4771	125,700	13.67%	$68,178	$3,000
2000	$0.4916	125,700	13.67%	$70,231	$3,000
2001	$0.5082	125,700	13.67%	$72,539	$3,000
2002	$0.5214	125,700	13.67%	$74,406	$3,000
2003	$0.5370	125,700	13.67%	$76,753	$3,000
2004	$0.5531	125,700	13.67%	$79,036	$3,000
2005	$0.5697	125,700	13.67%	$81,408	$3,000
2006	$0.5866	125,700	13.67%	$83,848	$3,000
2007	$0.6044	125,700	13.67%	$86,363	$3,000
2008	$0.6228	125,700	13.67%	$88,964	$3,000
2009	$0.6412	125,700	13.67%	$91,633	$3,000
2010	$0.6606	125,700	13.67%	$94,371	$3,000
2011	$0.6803	125,700	13.67%	$97,202	$3,000
2012	$0.7007	125,700	13.67%	$100,119	$3,000
2013	$0.7217	125,700	13.67%	$103,122	$3,000
2014	$0.7434	125,700	13.67%	$106,216	$3,000
2015	$0.7657	125,700	13.67%	$109,402	$3,000
2016	$0.7886	125,700	13.67%	$112,684	$3,000
2017	$0.8123	125,700	13.67%	$116,065	$3,000

TABLE 3

1	2	3
Year	Monthly Cust. Chrg	Annual Cust. Chrg
1998	$40.00	$480.00
1999	$41.20	$494.40
2000	$42.44	$509.23
2001	$43.71	$524.81
2002	$45.02	$540.24
2003	$46.37	$556.46
2004	$47.76	$573.15
2005	$49.19	$590.34
2006	$50.67	$608.08
2007	$52.19	$626.39
2008	$53.76	$645.08
2009	$55.37	$664.43
2010	$57.03	$684.37
2011	$58.74	$704.90
2012	$60.50	$726.04
2013	$62.32	$747.82
2014	$64.19	$770.26
2015	$66.11	$793.37
2016	$68.10	$817.17
2017	$70.14	$841.68