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OF COUNSEL
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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-Cu

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

DOCUMENT NUMBER - 034980

034980 MAR 25 1998

FPSO RECORDS MANAGEMENT

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Review to Determine Cost)	DOCKET NO.
Effectiveness of Conservation Programs of)	
Florida Division of Chesapeake Utilities Corporation)	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.

DOCUMENT NUMBER-DATE

03498 MAR 25 1998

FPSC-RECORDS/REPORTING

**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.

	<u>Incentives</u>	<u>Participants</u>	<u>Rim</u>
		<u>B/C Ratio</u>	<u>B/C Ratio</u>
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.

	<u>Incentives</u>	<u>Participants B/C Ratio</u>	<u>Rim B/C Ratio</u>
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.

	<u>Incentives</u>	<u>Participants</u>	<u>Rim</u>
		<u>B/C Ratio</u>	<u>B/C Ratio</u>
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.

	<u>Incentives</u>	<u>Participants</u>	Rim <u>B/C Ratio</u>
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.

	<u>Incentives</u>	<u>Participants</u>	<u>Rim</u>
	<u>B/C Ratio</u>		<u>B/C Ratio</u>
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.



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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	2.64	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	4.64	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	1.85

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	Electric Rate Number	Electric Resistance Water Heater	\$0 gallon
Gas Program	Residential Home Builder Program		Gas Rate Number				Alternate Option:	Electric	
Gas Measure:	Water Heater	48 gallon					All Fuel Type:		

Alliance: \$275
Gas Utility: Charlotte Utilities Corporation

1 Avoided Mallet Removal Cost	\$ 5
2 Avoided Cut & Cap Cost	0
Total Costs	\$ 5

Operating Data

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. PCA, Winter	0.28977
11. PCA, Summer	0.28977

14. Ratio of Therms Consumed to Todal	39.7%
15. Average Life	11

III. Common Gas & Electric Data

Docket No. Exhibit A
Brown v. U.S.

Number of Years:	20	Electric Rate Number:	
Alternative Option: All Electric-	All Electric-	Electric Resistance Water Heater	60 gallon

Senate Executive Committee

	\$	
1 Supply Main		25
2 Development Main		114
3 Service		364
4 Meter		205
Total Cuts' Cost		\$178
5 Utility Allowance		\$275
6 Program Cost		\$48
6 New Customer Admin. Cost \$1/month		\$2
7 Main O&M (Reversed)		2,047
8		7%

1. Load Profile Type
2. Commodity (Annual)
3. Winter Multiplier
4. Summer Multiplier
5. Transportation Capacity, Peaking and Balancing

	Name	Existing	Total
	Winter	Summer	Total
Water	0.88	0.0	0.88
Electricity	0.0	0.0	0.0
Gas	1.00		1.00
Water	0.00	0.00	0.00
Electricity	0.00	0.00	0.00
Gas			
Water	0.07671	0.07671	0.15342
Electricity			
Gas			

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
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

Year	Community	Area	Population	Per Capita Income	Total Households	Median Household Income
1980	100	0.25138	3,380,777	\$3,821,153	1,181	\$10,000
1980	100	0.44426	5,407,048	\$4,846,688	1,421	\$10,000
1980	100	0.45120	5,412,602	\$4,871,523	1,441	\$10,000
1980	100	0.47128	5,420,211	\$4,887,714	1,451	\$10,000
1980	100	0.48128	5,428,009	\$4,924,627	1,461	\$10,000
1980	100	0.48408	5,431,346	\$4,981,779	1,462	\$10,000
1980	100	0.51148	5,465,452	\$4,886,038	1,481	\$10,000
1980	100	0.530546	5,479,046	\$4,886,714	1,491	\$10,000
1980	100	0.532323	5,480,638	\$4,886,714	1,492	\$10,000
1980	100	0.540621	5,487,148	\$4,887,714	1,493	\$10,000
1980	100	0.552270	5,492,046	\$4,887,714	1,494	\$10,000
1980	100	0.570708	5,512,311	\$4,933,236	1,495	\$10,000
1980	100	0.580009	5,520,013	\$4,938,449	1,496	\$10,000
1980	100	0.614487	5,560,771	\$4,977,029	1,497	\$10,000
1980	100	0.632323	5,585,771	\$4,977,021	1,498	\$10,000
1980	100	0.65123	5,601,346	\$4,981,779	1,499	\$10,000
1980	100	0.67128	5,617,148	\$4,981,779	1,500	\$10,000
1980	100	0.69128	5,632,046	\$4,981,779	1,501	\$10,000
1980	100	0.71128	5,647,944	\$4,981,779	1,502	\$10,000
1980	100	0.73128	5,662,842	\$4,981,779	1,503	\$10,000
1980	100	0.75128	5,677,740	\$4,981,779	1,504	\$10,000
1980	100	0.77128	5,692,638	\$4,981,779	1,505	\$10,000
1980	100	0.79128	5,707,536	\$4,981,779	1,506	\$10,000
1980	100	0.81128	5,722,434	\$4,981,779	1,507	\$10,000
1980	100	0.83128	5,737,332	\$4,981,779	1,508	\$10,000
1980	100	0.85128	5,752,230	\$4,981,779	1,509	\$10,000
1980	100	0.87128	5,767,128	\$4,981,779	1,510	\$10,000
1980	100	0.89128	5,782,026	\$4,981,779	1,511	\$10,000
1980	100	0.91128	5,796,924	\$4,981,779	1,512	\$10,000
1980	100	0.93128	5,811,822	\$4,981,779	1,513	\$10,000
1980	100	0.95128	5,826,720	\$4,981,779	1,514	\$10,000
1980	100	0.97128	5,841,618	\$4,981,779	1,515	\$10,000
1980	100	0.99128	5,856,516	\$4,981,779	1,516	\$10,000
1980	100	0.10128	5,871,414	\$4,981,779	1,517	\$10,000
1980	100	0.10328	5,886,312	\$4,981,779	1,518	\$10,000
1980	100	0.10528	5,901,210	\$4,981,779	1,519	\$10,000
1980	100	0.10728	5,916,108	\$4,981,779	1,520	\$10,000
1980	100	0.10928	5,931,006	\$4,981,779	1,521	\$10,000
1980	100	0.11128	5,945,904	\$4,981,779	1,522	\$10,000
1980	100	0.11328	5,960,802	\$4,981,779	1,523	\$10,000
1980	100	0.11528	5,975,700	\$4,981,779	1,524	\$10,000
1980	100	0.11728	5,990,598	\$4,981,779	1,525	\$10,000
1980	100	0.11928	5,995,496	\$4,981,779	1,526	\$10,000
1980	100	0.12128	6,010,394	\$4,981,779	1,527	\$10,000
1980	100	0.12328	6,025,292	\$4,981,779	1,528	\$10,000
1980	100	0.12528	6,040,190	\$4,981,779	1,529	\$10,000
1980	100	0.12728	6,055,088	\$4,981,779	1,530	\$10,000
1980	100	0.12928	6,069,986	\$4,981,779	1,531	\$10,000
1980	100	0.13128	6,084,884	\$4,981,779	1,532	\$10,000
1980	100	0.13328	6,099,782	\$4,981,779	1,533	\$10,000
1980	100	0.13528	6,114,680	\$4,981,779	1,534	\$10,000
1980	100	0.13728	6,129,578	\$4,981,779	1,535	\$10,000
1980	100	0.13928	6,144,476	\$4,981,779	1,536	\$10,000
1980	100	0.14128	6,159,374	\$4,981,779	1,537	\$10,000
1980	100	0.14328	6,174,272	\$4,981,779	1,538	\$10,000
1980	100	0.14528	6,189,170	\$4,981,779	1,539	\$10,000
1980	100	0.14728	6,204,068	\$4,981,779	1,540	\$10,000
1980	100	0.14928	6,218,966	\$4,981,779	1,541	\$10,000
1980	100	0.15128	6,233,864	\$4,981,779	1,542	\$10,000
1980	100	0.15328	6,248,762	\$4,981,779	1,543	\$10,000
1980	100	0.15528	6,263,660	\$4,981,779	1,544	\$10,000
1980	100	0.15728	6,278,558	\$4,981,779	1,545	\$10,000
1980	100	0.15928	6,293,456	\$4,981,779	1,546	\$10,000
1980	100	0.16128	6,308,354	\$4,981,779	1,547	\$10,000
1980	100	0.16328	6,323,252	\$4,981,779	1,548	\$10,000
1980	100	0.16528	6,338,150	\$4,981,779	1,549	\$10,000
1980	100	0.16728	6,353,048	\$4,981,779	1,550	\$10,000
1980	100	0.16928	6,367,946	\$4,981,779	1,551	\$10,000
1980	100	0.17128	6,382,844	\$4,981,779	1,552	\$10,000
1980	100	0.17328	6,397,742	\$4,981,779	1,553	\$10,000
1980	100	0.17528	6,412,640	\$4,981,779	1,554	\$10,000
1980	100	0.17728	6,427,538	\$4,981,779	1,555	\$10,000
1980	100	0.17928	6,442,436	\$4,981,779	1,556	\$10,000
1980	100	0.18128	6,457,334	\$4,981,779	1,557	\$10,000
1980	100	0.18328	6,472,232	\$4,981,779	1,558	\$10,000
1980	100	0.18528	6,487,130	\$4,981,779	1,559	\$10,000
1980	100	0.18728	6,502,028	\$4,981,779	1,560	\$10,000
1980	100	0.18928	6,516,926	\$4,981,779	1,561	\$10,000
1980	100	0.19128	6,531,824	\$4,981,779	1,562	\$10,000
1980	100	0.19328	6,546,722	\$4,981,779	1,563	\$10,000
1980	100	0.19528	6,561,620	\$4,981,779	1,564	\$10,000
1980	100	0.19728	6,576,518	\$4,981,779	1,565	\$10,000
1980	100	0.19928	6,591,416	\$4,981,779	1,566	\$10,000
1980	100	0.20128	6,606,314	\$4,981,779	1,567	\$10,000
1980	100	0.20328	6,621,212	\$4,981,779	1,568	\$10,000
1980	100	0.20528	6,636,110	\$4,981,779	1,569	\$10,000
1980	100	0.20728	6,651,008	\$4,981,779	1,570	\$10,000
1980	100	0.20928	6,665,906	\$4,981,779	1,571	\$10,000
1980	100	0.21128	6,680,804	\$4,981,779	1,572	\$10,000
1980	100	0.21328	6,695,702	\$4,981,779	1,573	\$10,000
1980	100	0.21528	6,710,600	\$4,981,779	1,574	\$10,000
1980	100	0.21728	6,725,498	\$4,981,779	1,575	\$10,000
1980	100	0.21928	6,740,396	\$4,981,779	1,576	\$10,000
1980	100	0.22128	6,755,294	\$4,981,779	1,577	\$10,000
1980	100	0.22328	6,770,192	\$4,981,779	1,578	\$10,000
1980	100	0.22528	6,785,090	\$4,981,779	1,579	\$10,000
1980	100	0.22728	6,800,988	\$4,981,779	1,580	\$10,000
1980	100	0.22928	6,815,886	\$4,981,779	1,581	\$10,000
1980	100	0.23128	6,830,784	\$4,981,779	1,582	\$10,000
1980	100	0.23328	6,845,682	\$4,981,779	1,583	\$10,000
1980	100	0.23528	6,860,580	\$4,981,779	1,584	\$10,000
1980	100	0.23728	6,875,478	\$4,981,779	1,585	\$10,000
1980	100	0.23928	6,890,376	\$4,981,779	1,586	\$10,000
1980	100	0.24128	6,905,274	\$4,981,779	1,587	\$10,000
1980	100	0.24328	6,920,172	\$4,981,779	1,588	\$10,000
1980	100	0.24528	6,935,070	\$4,981,779	1,589	\$10,000
1980	100	0.24728	6,949,968	\$4,981,779	1,590	\$10,000
1980	100	0.24928	6,964,866	\$4,981,779	1,591	\$10,000
1980	100	0.25128	6,979,764	\$4,981,779	1,592	\$10,000
1980	100	0.25328	6,994,662	\$4,981,779	1,593	\$10,000
1980	100	0.25528	7,009,560	\$4,981,779	1,594	\$10,000
1980	100	0.25728	7,024,458	\$4,981,779	1,595	\$10,000
1980	100	0.25928	7,039,356	\$4,981,779	1,596	\$10,000
1980	100	0.26128	7,054,254	\$4,981,779	1,597	\$10,000
1980	100	0.26328	7,069,152	\$4,981,779	1,598	\$10,000
1980	100	0.26528	7,084,050	\$4,981,779	1,599	\$10,000
1980	100	0.26728	7,098,948	\$4,981,779	1,600	\$10,000
1980	100	0.26928	7,113,846	\$4,981,779	1,601	\$10,000
1980	100	0.27128	7,128,744	\$4,981,779	1,602	\$10,000
1980	100	0.27328	7,143,642	\$4,981,779	1,603	\$10,000
1980	100	0.27528	7,158,540	\$4,981,779	1,604	\$10,000
1980	100	0.27728	7,173,438	\$4,981,779	1,605	\$10,000
1980	100	0.27928	7,188,336	\$4,981,779	1,606	\$10,000
1980	100	0.28128	7,203,234	\$4,981,779	1,607	\$10,000
1980	100	0.28328	7,218,132	\$4,981,779	1,608	\$10,000
1980	100	0.28528	7,233,030	\$4,981,779	1,609	\$10,000
1980	100	0.28728	7,247,928	\$4,981,779	1,610	\$10,000
1980	100	0.28928	7,262,826	\$4,981,779	1,611	\$10,000
1980	100	0.29128	7,277,724	\$4,981,779	1,612	\$10,000
1980	100	0.29328	7,292,622	\$4,981,779	1,613	\$10,000
1980	100	0.29528	7,307,520	\$4,981,779	1,614	\$10,000
1980	100	0.29728	7,322,418	\$4,981,779	1,615	\$10,000
1980	100	0.29928	7,337,316	\$4,981,779	1,616	\$10,000
1980	100	0.30128	7,352,214	\$4,981,779	1,617	\$10,000
1980	100	0.30328	7,367,112	\$4,981,779	1,618	\$10,000
1980	100	0.30528	7,382,010	\$4,981,779	1,619	\$10,000
1980	100	0.30728	7,396,908	\$4,981,779	1,620	\$10,000
1980	100	0.30928	7,411,806	\$4,981,779	1,621	\$10,000
1980	100	0.31128	7,426,704	\$4,981,779	1,622	\$10,000
1980	100	0.31328	7,441,602	\$4,981,779	1,623	

Rate Impact Measure Test Data

All Costs In	1998	dollars.	Analysis Start Year:	1998	Number of Years:	20	Electric Rate Number
Gas Program:	Residential Home Builder Program			Gas Rate Number			
Gas Supplier:	ParusGas	Newark, New Jersey	Newark	Gas Options:	Electric Rate Number		
Allowable:	\$275			Gas Type:	Electric Rate Number		
Gas Utility:	Con Edison Utilities Corporation			Electric Utility:	Electric Rate Number		

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

E. Operating Data
1. Energy Factor

	Winter	Summer	Total
Thermal Conducted	177.0	0.0	177.0
2. Standard Rate			0.0
3. Seaweed Rate			
Total		177.0	177.0

Système

Gas Rates		Rate				
6. Basis, Winter		\$0.43126				
7. Basis, Summer		\$0.43126				
8. Seasonal, Winter						
9. Seasonal, Summer						
10. PQA, Winter		0.28977				
11. PQA, Summer		0.28977				
12. Customer Chg		\$4.50				
14. Ratio of Therms Consumed to Total		41.84%				
15. Average Life		19				
III. Common Gas & Electric Data						
IV. Therms Consumed			Therm	Ending		Total
1. Energy Factor		1.00		1		
2. Annual Gas Therms		0.0		0.0		
IV. Therms Displaced			Therm	Ending		Total
1. Energy Factor		1.00		1.00		
2. Therms Displaced			Therm	Summer		Total
2. Standard Rate		0.00		0.00		
Total			Therm	Summer		Total
VII. Therms Per Hour @ Utility Receipt Point			Therm	Summer		Total
1. Consumed		0.07671		0.07671		0.15342
2. Consumed New						
3. Consumed Existing						
4. Deployed						

Rate Impact Measure Test Data

Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Total Columns 2 thru 3	Carrying	New	Gas Supply Cost	Program & Allowance Cost	Heating
			Chg. On Main, Svc. & Meter	Customer Admin. & Facilities O&M			Total Columns 6 thru 9
			Table 1	Table 2	Table 3	Table 4	Table 5
1	2	3	4	5	6	7	8
		\$	\$	\$	\$	\$	\$
1998	145	33	178	23	12	60	323
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

\$1,291

Benefit/Cost Ratio

1.60

Table 1

Table 2

Table 4

Table 3

Category	Subcategory	Subsubcategory	Subsubsubcategory	Subsubsubsubcategory	Subsubsubsubsubcategory	Avg Cost	Comments	Name of Person			Comments	Comments
								1	2	3		
1000	100	100	100	100	100	\$100		John	John	John		
1000	200	200	200	200	200	\$200		Jane	Jane	Jane		
1000	300	300	300	300	300	\$300		Bob	Bob	Bob		
1000	400	400	400	400	400	\$400		Susan	Susan	Susan		
1000	500	500	500	500	500	\$500		Mike	Mike	Mike		
1000	600	600	600	600	600	\$600		Emily	Emily	Emily		
1000	700	700	700	700	700	\$700		Alex	Alex	Alex		
1000	800	800	800	800	800	\$800		David	David	David		
1000	900	900	900	900	900	\$900		Sarah	Sarah	Sarah		
1000	1000	1000	1000	1000	1000	\$1000		James	James	James		
1000	1100	1100	1100	1100	1100	\$1100		Anna	Anna	Anna		
1000	1200	1200	1200	1200	1200	\$1200		Kevin	Kevin	Kevin		
1000	1300	1300	1300	1300	1300	\$1300		Olivia	Olivia	Olivia		
1000	1400	1400	1400	1400	1400	\$1400		Matthew	Matthew	Matthew		
1000	1500	1500	1500	1500	1500	\$1500		Elizabeth	Elizabeth	Elizabeth		
1000	1600	1600	1600	1600	1600	\$1600		Christopher	Christopher	Christopher		
1000	1700	1700	1700	1700	1700	\$1700		Madison	Madison	Madison		
1000	1800	1800	1800	1800	1800	\$1800		Jordan	Jordan	Jordan		
1000	1900	1900	1900	1900	1900	\$1900		Samuel	Samuel	Samuel		
1000	2000	2000	2000	2000	2000	\$2000		Abigail	Abigail	Abigail		
1000	2100	2100	2100	2100	2100	\$2100		Benjamin	Benjamin	Benjamin		
1000	2200	2200	2200	2200	2200	\$2200		Charlotte	Charlotte	Charlotte		
1000	2300	2300	2300	2300	2300	\$2300		Daniel	Daniel	Daniel		
1000	2400	2400	2400	2400	2400	\$2400		Elijah	Elijah	Elijah		
1000	2500	2500	2500	2500	2500	\$2500		Felicity	Felicity	Felicity		
1000	2600	2600	2600	2600	2600	\$2600		Garrison	Garrison	Garrison		
1000	2700	2700	2700	2700	2700	\$2700		Hannah	Hannah	Hannah		
1000	2800	2800	2800	2800	2800	\$2800		Ivy	Ivy	Ivy		
1000	2900	2900	2900	2900	2900	\$2900		Jackson	Jackson	Jackson		
1000	3000	3000	3000	3000	3000	\$3000		Karen	Karen	Karen		
1000	3100	3100	3100	3100	3100	\$3100		Liam	Liam	Liam		
1000	3200	3200	3200	3200	3200	\$3200		Mia	Mia	Mia		
1000	3300	3300	3300	3300	3300	\$3300		Noah	Noah	Noah		
1000	3400	3400	3400	3400	3400	\$3400		Olivia	Olivia	Olivia		
1000	3500	3500	3500	3500	3500	\$3500		Parker	Parker	Parker		
1000	3600	3600	3600	3600	3600	\$3600		Riley	Riley	Riley		
1000	3700	3700	3700	3700	3700	\$3700		Sophia	Sophia	Sophia		
1000	3800	3800	3800	3800	3800	\$3800		Taylor	Taylor	Taylor		
1000	3900	3900	3900	3900	3900	\$3900		Ulysses	Ulysses	Ulysses		
1000	4000	4000	4000	4000	4000	\$4000		Vivian	Vivian	Vivian		
1000	4100	4100	4100	4100	4100	\$4100		Wade	Wade	Wade		
1000	4200	4200	4200	4200	4200	\$4200		Xavier	Xavier	Xavier		
1000	4300	4300	4300	4300	4300	\$4300		Yara	Yara	Yara		
1000	4400	4400	4400	4400	4400	\$4400		Zoey	Zoey	Zoey		

Table 5

Year	Country	Type	Population		GDP		GDP per Capita		GDP Growth		Inflation		Unemployment	
			Total	Urban	Current	Constant	US\$	Local	%	ppm	YoY	MoM	Rate	Rate
1990	U.S.	Urban	250.00	227.00	1,273.4	1,273.4	5,082.0	5,082.0	1.33	1.33	3.62	3.62	4.8%	4.8%
1990	U.S.	Total	250.00	227.00	1,273.4	1,273.4	5,082.0	5,082.0	1.33	1.33	3.62	3.62	4.8%	4.8%
2000	U.S.	Urban	280.00	257.00	1,328.7	1,328.7	5,494.3	5,494.3	1.20	1.20	3.56	3.56	4.6%	4.6%
2000	U.S.	Total	280.00	257.00	1,328.7	1,328.7	5,494.3	5,494.3	1.20	1.20	3.56	3.56	4.6%	4.6%
2010	U.S.	Urban	313.00	277.00	1,377.0	1,377.0	5,955.3	5,955.3	0.47%	0.47%	1.20	1.20	3.56	3.56
2010	U.S.	Total	313.00	277.00	1,377.0	1,377.0	5,955.3	5,955.3	0.47%	0.47%	1.20	1.20	3.56	3.56
2020	U.S.	Urban	343.00	317.00	1,425.3	1,425.3	6,409.8	6,409.8	1.33	1.33	3.71	3.71	4.8%	4.8%
2020	U.S.	Total	343.00	317.00	1,425.3	1,425.3	6,409.8	6,409.8	1.33	1.33	3.71	3.71	4.8%	4.8%
2030	U.S.	Urban	373.00	347.00	1,473.6	1,473.6	6,864.4	6,864.4	1.20	1.20	3.71	3.71	4.8%	4.8%
2030	U.S.	Total	373.00	347.00	1,473.6	1,473.6	6,864.4	6,864.4	1.20	1.20	3.71	3.71	4.8%	4.8%
2040	U.S.	Urban	403.00	377.00	1,521.9	1,521.9	7,329.0	7,329.0	1.13	1.13	3.71	3.71	4.8%	4.8%
2040	U.S.	Total	403.00	377.00	1,521.9	1,521.9	7,329.0	7,329.0	1.13	1.13	3.71	3.71	4.8%	4.8%
2050	U.S.	Urban	433.00	407.00	1,570.2	1,570.2	7,803.6	7,803.6	1.06	1.06	3.71	3.71	4.8%	4.8%
2050	U.S.	Total	433.00	407.00	1,570.2	1,570.2	7,803.6	7,803.6	1.06	1.06	3.71	3.71	4.8%	4.8%
2060	U.S.	Urban	463.00	437.00	1,618.5	1,618.5	8,298.2	8,298.2	1.00	1.00	3.71	3.71	4.8%	4.8%
2060	U.S.	Total	463.00	437.00	1,618.5	1,618.5	8,298.2	8,298.2	1.00	1.00	3.71	3.71	4.8%	4.8%
2070	U.S.	Urban	493.00	467.00	1,666.8	1,666.8	8,803.8	8,803.8	0.94	0.94	3.71	3.71	4.8%	4.8%
2070	U.S.	Total	493.00	467.00	1,666.8	1,666.8	8,803.8	8,803.8	0.94	0.94	3.71	3.71	4.8%	4.8%
2080	U.S.	Urban	523.00	497.00	1,715.1	1,715.1	9,320.4	9,320.4	0.88	0.88	3.71	3.71	4.8%	4.8%
2080	U.S.	Total	523.00	497.00	1,715.1	1,715.1	9,320.4	9,320.4	0.88	0.88	3.71	3.71	4.8%	4.8%
2090	U.S.	Urban	553.00	527.00	1,763.4	1,763.4	9,848.0	9,848.0	0.82	0.82	3.71	3.71	4.8%	4.8%
2090	U.S.	Total	553.00	527.00	1,763.4	1,763.4	9,848.0	9,848.0	0.82	0.82	3.71	3.71	4.8%	4.8%
2100	U.S.	Urban	583.00	557.00	1,811.7	1,811.7	10,406.6	10,406.6	0.76	0.76	3.71	3.71	4.8%	4.8%
2100	U.S.	Total	583.00	557.00	1,811.7	1,811.7	10,406.6	10,406.6	0.76	0.76	3.71	3.71	4.8%	4.8%
2110	U.S.	Urban	613.00	587.00	1,860.0	1,860.0	11,006.2	11,006.2	0.70	0.70	3.71	3.71	4.8%	4.8%
2110	U.S.	Total	613.00	587.00	1,860.0	1,860.0	11,006.2	11,006.2	0.70	0.70	3.71	3.71	4.8%	4.8%
2120	U.S.	Urban	643.00	617.00	1,908.3	1,908.3	11,635.8	11,635.8	0.64	0.64	3.71	3.71	4.8%	4.8%
2120	U.S.	Total	643.00	617.00	1,908.3	1,908.3	11,635.8	11,635.8	0.64	0.64	3.71	3.71	4.8%	4.8%
2130	U.S.	Urban	673.00	647.00	1,956.6	1,956.6	12,306.4	12,306.4	0.58	0.58	3.71	3.71	4.8%	4.8%
2130	U.S.	Total	673.00	647.00	1,956.6	1,956.6	12,306.4	12,306.4	0.58	0.58	3.71	3.71	4.8%	4.8%
2140	U.S.	Urban	703.00	677.00	2,004.9	2,004.9	13,018.0	13,018.0	0.52	0.52	3.71	3.71	4.8%	4.8%
2140	U.S.	Total	703.00	677.00	2,004.9	2,004.9	13,018.0	13,018.0	0.52	0.52	3.71	3.71	4.8%	4.8%
2150	U.S.	Urban	733.00	707.00	2,053.2	2,053.2	13,770.6	13,770.6	0.46	0.46	3.71	3.71	4.8%	4.8%
2150	U.S.	Total	733.00	707.00	2,053.2	2,053.2	13,770.6	13,770.6	0.46	0.46	3.71	3.71	4.8%	4.8%
2160	U.S.	Urban	763.00	737.00	2,101.5	2,101.5	14,563.2	14,563.2	0.40	0.40	3.71	3.71	4.8%	4.8%
2160	U.S.	Total	763.00	737.00	2,101.5	2,101.5	14,563.2	14,563.2	0.40	0.40	3.71	3.71	4.8%	4.8%
2170	U.S.	Urban	793.00	767.00	2,149.8	2,149.8	15,396.8	15,396.8	0.34	0.34	3.71	3.71	4.8%	4.8%
2170	U.S.	Total	793.00	767.00	2,149.8	2,149.8	15,396.8	15,396.8	0.34	0.34	3.71	3.71	4.8%	4.8%
2180	U.S.	Urban	823.00	797.00	2,198.1	2,198.1	16,270.4	16,270.4	0.28	0.28	3.71	3.71	4.8%	4.8%
2180	U.S.	Total	823.00	797.00	2,198.1	2,198.1	16,270.4	16,270.4	0.28	0.28	3.71	3.71	4.8%	4.8%
2190	U.S.	Urban	853.00	827.00	2,246.4	2,246.4	17,204.0	17,204.0	0.22	0.22	3.71	3.71	4.8%	4.8%
2190	U.S.	Total	853.00	827.00	2,246.4	2,246.4	17,204.0	17,204.0	0.22	0.22	3.71	3.71	4.8%	4.8%
2200	U.S.	Urban	883.00	857.00	2,294.7	2,294.7	18,208.6	18,208.6	0.16	0.16	3.71	3.71	4.8%	4.8%
2200	U.S.	Total	883.00	857.00	2,294.7	2,294.7	18,208.6	18,208.6	0.16	0.16	3.71	3.71	4.8%	4.8%
2210	U.S.	Urban	913.00	887.00	2,343.0	2,343.0	19,303.2	19,303.2	0.10	0.10	3.71	3.71	4.8%	4.8%
2210	U.S.	Total	913.00	887.00	2,343.0	2,343.0	19,303.2	19,303.2	0.10	0.10	3.71	3.71	4.8%	4.8%
2220	U.S.	Urban	943.00	917.00	2,391.3	2,391.3	20,507.8	20,507.8	0.04	0.04	3.71	3.71	4.8%	4.8%
2220	U.S.	Total	943.00	917.00	2,391.3	2,391.3	20,507.8	20,507.8	0.04	0.04	3.71	3.71	4.8%	4.8%
2230	U.S.	Urban	973.00	947.00	2,439.6	2,439.6	21,802.4	21,802.4	-0.02	-0.02	3.71	3.71	4.8%	4.8%
2230	U.S.	Total	973.00	947.00	2,439.6	2,439.6	21,802.4	21,802.4	-0.02	-0.02	3.71	3.71	4.8%	4.8%
2240	U.S.	Urban	1,003.00	977.00	2,487.9	2,487.9	23,207.0	23,207.0	-0.06	-0.06	3.71	3.71	4.8%	4.8%
2240	U.S.	Total	1,003.00	977.00	2,487.9	2,487.9	23,207.0	23,207.0	-0.06	-0.06	3.71	3.71	4.8%	4.8%
2250	U.S.	Urban	1,033.00	1,007.00	2,536.2	2,536.2	24,701.6	24,701.6	-0.10	-0.10	3.71	3.71	4.8%	4.8%
2250	U.S.	Total	1,033.00	1,007.00	2,536.2	2,536.2	24,701.6	24,701.6	-0.10	-0.10	3.71	3.71	4.8%	4.8%
2260	U.S.	Urban	1,063.00	1,037.00	2,584.5	2,584.5	26,306.2	26,306.2	-0.14	-0.14	3.71	3.71	4.8%	4.8%
2260	U.S.	Total	1,063.00	1,037.00	2,584.5	2,584.5	26,306.2	26,306.2	-0.14	-0.14	3.71	3.71	4.8%	4.8%
2270	U.S.	Urban	1,093.00	1,067.00	2,632.8	2,632.8	28,000.8	28,000.8	-0.18	-0.18	3.71	3.71	4.8%	4.8%
2270	U.S.	Total	1,093.00	1,067.00	2,632.8	2,632.8	28,000.8	28,000.8	-0.18	-0.18	3.71	3.71	4.8%	4.8%
2280	U.S.	Urban	1,123.00	1,097.00	2,681.1	2,681.1	29,804.4	29,804.4	-0.22	-0.22	3.71	3.71	4.8%	4.8%
2280	U.S.	Total	1,123.00	1,097.00	2,681.1	2,681.1	29,804.4	29,804.4	-0.22	-0.22	3.71	3.71	4.8%	4.8%
2290	U.S.	Urban	1,153.00	1,127.00	2,739.4	2,739.4	31,708.0	31,708.0	-0.26	-0.26	3.71	3.71	4.8%	4.8%
2290	U.S.	Total	1,153.00	1,127.00	2,739.4	2,739.4	31,708.0	31,708.0	-0.26	-0.26	3.71	3.71	4.8%	4.8%
2300	U.S.	Urban	1,183.00	1,157.00	2,797.7	2,797.7	33,701.6	33,701.6	-0.30	-0.30	3.71	3.71	4.8%	4.8%
2300	U.S.	Total	1,183.00	1,157.00	2,797.7	2,797.7	33,701.6	33,701.6	-0.30	-0.30	3.71	3.71	4.8%	4.8%
2310	U.S.	Urban	1,213.00	1,187.00	2,856.0	2,856.0	35,805.2	35,805.2	-0.34	-0.34	3.71	3.71	4.8%	4.8%
2310	U.S.	Total	1,213.00	1,187.00	2,856.0	2,856.0	35,805.2	35,805.2	-0.34	-0.34	3.71	3.71	4.8%	4.8%
2320	U.S.	Urban	1,243.00	1,217.00	2,914.3	2,914.3	38,008.8	38,008.8	-0.38	-0.38	3.71	3.71	4.8%	4.8%
2320	U.S.	Total	1,243.00	1,217.00	2,914.3	2,914.3	38,008.8	38,008.8	-0.38	-0.38	3.71	3.71	4.8%	4.8%
2330	U.S.	Urban	1,273.00	1,247.00	2,972.6	2,972.6	40,302.4	40,302.4	-0.42	-0.42	3.71	3.71	4.8%	4.8%
2330	U.S.	Total	1,273.00	1,247.00	2,972.6	2,972.6	40,302.4	40,302.4	-0.42	-0.42	3.71	3.71	4.8%	4.8%
2340	U.S.	Urban	1,303.00	1,277.00	3,030.9	3,030.9	42,606.0	42,606.0	-0.46	-0.46	3.71	3.71	4.8%	4.8%
2340	U.S.	Total	1,303.00	1,277.00	3,030.9	3,030.9	42,606.0	42,606.0	-0.46	-0.46	3.71	3.71	4.8%	4.8%
2350	U.S.	Urban	1,333.00	1,307.00	3,089.2	3,089.2	45,009.6	45,009.6	-0.50	-0.50	3.71	3.71	4.8%	4.8%
2350	U.S.	Total	1,333.00	1,307.00	3,089.2	3,089.2	45,009.6	45,009.6	-0.50	-0.50	3.71	3.71	4.8%	4.8%
2360	U.S.	Urban	1,363.00	1,337.00	3,147.5	3,147.5	47,403.2	47,403.2	-0.54	-0.54	3.71	3.71	4.8%	4.8%
2360	U.S.	Total	1,363.00	1,337.00	3,147.5	3,147.5	47,403.2	47,403.2	-0.54	-0.54	3.71	3.71	4.8%	4.8%
2370	U.S.	Urban	1,393.00	1,367.00	3,205.8	3,205.8	50,006.8	50,006.8	-0.58	-0.58	3.71	3.71	4.8%	4.8%
2370	U.S.	Total	1,393.00	1,367.00	3,205.8	3,205.8	50,006.8							

Rate Impact Measure Test Data

All Costs in	1995 dollars.	Analysis Start Year	1998	Number of Years	20	Electric Rate Number
Gas Program:	Residential Home Builder Program	Gas Rate Number				
Gas Business:	Dyer New Customer, New Main					
Allowances:	\$77					
Gas Utility:	Chesapeake Utilities Corporation					
1. Avoided Meter Removal Cost	\$0					
2. Avoided Cell & Cap Cost	0					
Total Costs	\$0					
I. Operating Data						
1. Energy Factor						
Therms Consumed	Winter	Summer	Total			
2. Standard Rates	23.0	23.0	46.0			
3. Seasonal Rate			0.0			
Total	23.0	23.0	46.0			
Gas Rates	Rate					
6. Dye's, Winter	\$0.43125					
7. Base, Summer	\$0.43125					
8. Seasonal, Winter						
9. Seasonal, Summer						
10. PQA, Winter	0.38977					
11. PQA, Summer	0.38977					
13. Customer Chg	\$8.50					
14. Ratio of Therms Consumed to Total	10.87%					
15. Average Life	19					
II. Common Gas & Electric Data						
1. Discount Rate	8.65%					
VII. Therms Consumed	Winter	Summer	Total			
1. Energy Factor	0.00	0.00	0.00			
2. Annual Gas Therms	0.0	0.0	0.0			
VIII. Therms Displaced	Winter	Summer	Total			
1. Energy Factor	1.00	1.00	1.00			
Therms Displaced	0.00	0.00	0.00			
2. Standard Rate	0.00	0.00	0.00			
Total	0.00	0.00	0.00			
VII. Therms Per Hour @ Utility Receipt Point	Winter	Summer	Total			
Therms per Hour	0.07671	0.07671	0.15342			
1. Consumed New						
2. Consumed New						
3. Consumed Existing						
4. Displaced						

Rate Impact Measure Test Data

	Consumed Gas Therms	Gas Customer Charge	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Facilities O&M	Gas Supply Cost	Program & Allowance Cost	Dryer Total Columns 6 thru 9
1	2	3	4	5	6	7	8	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 Value
of Benefits \$537

\$351

Benefit/Cost Ratio

Rate Impact Measure Test Data

All Costs in	1998	dollars.	Analysis Start Year	1998	Number of Years	20	Electric Rate Number
Gas Program:	Residential Home Builder Program		Gas Rate Number				
Gas Metric:	Ramps New Customers, New Building New Build		Residence Optic: All户Type:	Ramps Electric			
Residence:	679		Electric Utility:	Tampa Electric			
Gas Utility:	Competitive Utilities Competition		IV. New Customer Installation Costs				
			1. Supply Main	\$25			
			2. Developer's 1 Main	114			
			3. Service	384			
			4. Meter	205			
			Total Cost: Cost	\$729			
			5. Utility Allowance	\$75			
			6. Program Cost	\$44			
			7. New Customer Admin. Cost \$/Month	\$2			
			8. Main OAM (Percent)	2.04%			
			V. Gas Supply Cost				
			1. Load Profile Type				
			2. Commodity (Annual)				
			3. Winter Multiplier				
			4. Summer Multiplier				
			5. Transportation, Capacity, Peaking and Balancing Cost				
			System Shrinkage				
			VI. Therms Consumed				
			1. Energy Factor				
			2. Annual Gas Thermo				
			VI. Therms Displaced				
			1. Energy Factor				
			Therms Displaced				
			2. Standard Rate				
			Total				
			VII. Therms Per Hour @ Utility Receipt Point				
			Therms per Hour				
			1. Consumed	0.07671			
			2. Consumed New				
			3. Consumed Existing				
			4. Displaced				
			Total				
			VIII. Average Life	19			
			1. Average Life				
			2. Common Gas & Electric Data				
			3. Discount Rate				

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Facilities O&M	Gas Supply Cost	Program & Allowance Cost	Range Total Columns 6 thru 9
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
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Table 1

Category	Min	Q1	Median	Q3	Max
1	10.42738	10.42738	10.42738	10.42738	10.42738
2	10.44510	10.44510	10.44510	10.44510	10.44510
3	10.45712	10.45712	10.45712	10.45712	10.45712
4	10.47125	10.47125	10.47125	10.47125	10.47125
5	10.48338	10.48338	10.48338	10.48338	10.48338
6	10.49550	10.49550	10.49550	10.49550	10.49550
7	10.51468	10.51468	10.51468	10.51468	10.51468
8	10.52680	10.52680	10.52680	10.52680	10.52680
9	10.53892	10.53892	10.53892	10.53892	10.53892
10	10.55104	10.55104	10.55104	10.55104	10.55104
11	10.56316	10.56316	10.56316	10.56316	10.56316
12	10.57528	10.57528	10.57528	10.57528	10.57528
13	10.58740	10.58740	10.58740	10.58740	10.58740
14	10.59952	10.59952	10.59952	10.59952	10.59952
15	10.61164	10.61164	10.61164	10.61164	10.61164
16	10.62376	10.62376	10.62376	10.62376	10.62376
17	10.63588	10.63588	10.63588	10.63588	10.63588
18	10.64800	10.64800	10.64800	10.64800	10.64800
19	10.66012	10.66012	10.66012	10.66012	10.66012
20	10.67224	10.67224	10.67224	10.67224	10.67224
21	10.68436	10.68436	10.68436	10.68436	10.68436
22	10.69648	10.69648	10.69648	10.69648	10.69648
23	10.70860	10.70860	10.70860	10.70860	10.70860
24	10.72072	10.72072	10.72072	10.72072	10.72072
25	10.73284	10.73284	10.73284	10.73284	10.73284
26	10.74496	10.74496	10.74496	10.74496	10.74496
27	10.75708	10.75708	10.75708	10.75708	10.75708
28	10.76920	10.76920	10.76920	10.76920	10.76920
29	10.78132	10.78132	10.78132	10.78132	10.78132
30	10.79344	10.79344	10.79344	10.79344	10.79344
31	10.80556	10.80556	10.80556	10.80556	10.80556
32	10.81768	10.81768	10.81768	10.81768	10.81768
33	10.82980	10.82980	10.82980	10.82980	10.82980
34	10.84192	10.84192	10.84192	10.84192	10.84192
35	10.85404	10.85404	10.85404	10.85404	10.85404
36	10.86616	10.86616	10.86616	10.86616	10.86616
37	10.87828	10.87828	10.87828	10.87828	10.87828
38	10.89040	10.89040	10.89040	10.89040	10.89040
39	10.90252	10.90252	10.90252	10.90252	10.90252
40	10.91464	10.91464	10.91464	10.91464	10.91464
41	10.92676	10.92676	10.92676	10.92676	10.92676
42	10.93888	10.93888	10.93888	10.93888	10.93888
43	10.95100	10.95100	10.95100	10.95100	10.95100
44	10.96312	10.96312	10.96312	10.96312	10.96312
45	10.97524	10.97524	10.97524	10.97524	10.97524
46	10.98736	10.98736	10.98736	10.98736	10.98736
47	10.99948	10.99948	10.99948	10.99948	10.99948
48	11.01160	11.01160	11.01160	11.01160	11.01160
49	11.02372	11.02372	11.02372	11.02372	11.02372
50	11.03584	11.03584	11.03584	11.03584	11.03584
51	11.04796	11.04796	11.04796	11.04796	11.04796
52	11.05100	11.05100	11.05100	11.05100	11.05100
53	11.06312	11.06312	11.06312	11.06312	11.06312
54	11.07524	11.07524	11.07524	11.07524	11.07524
55	11.08736	11.08736	11.08736	11.08736	11.08736
56	11.09948	11.09948	11.09948	11.09948	11.09948
57	11.11160	11.11160	11.11160	11.11160	11.11160
58	11.12372	11.12372	11.12372	11.12372	11.12372
59	11.13584	11.13584	11.13584	11.13584	11.13584
60	11.14796	11.14796	11.14796	11.14796	11.14796
61	11.15100	11.15100	11.15100	11.15100	11.15100
62	11.16312	11.16312	11.16312	11.16312	11.16312
63	11.17524	11.17524	11.17524	11.17524	11.17524
64	11.18736	11.18736	11.18736	11.18736	11.18736
65	11.19948	11.19948	11.19948	11.19948	11.19948
66	11.21160	11.21160	11.21160	11.21160	11.21160
67	11.22372	11.22372	11.22372	11.22372	11.22372
68	11.23584	11.23584	11.23584	11.23584	11.23584
69	11.24796	11.24796	11.24796	11.24796	11.24796
70	11.25100	11.25100	11.25100	11.25100	11.25100
71	11.26312	11.26312	11.26312	11.26312	11.26312
72	11.27524	11.27524	11.27524	11.27524	11.27524
73	11.28736	11.28736	11.28736	11.28736	11.28736
74	11.30100	11.30100	11.30100	11.30100	11.30100
75	11.31312	11.31312	11.31312	11.31312	11.31312
76	11.32524	11.32524	11.32524	11.32524	11.32524
77	11.33736	11.33736	11.33736	11.33736	11.33736
78	11.35100	11.35100	11.35100	11.35100	11.35100
79	11.36312	11.36312	11.36312	11.36312	11.36312
80	11.37524	11.37524	11.37524	11.37524	11.37524
81	11.38736	11.38736	11.38736	11.38736	11.38736
82	11.40100	11.40100	11.40100	11.40100	11.40100
83	11.41312	11.41312	11.41312	11.41312	11.41312
84	11.42524	11.42524	11.42524	11.42524	11.42524
85	11.43736	11.43736	11.43736	11.43736	11.43736
86	11.45100	11.45100	11.45100	11.45100	11.45100
87	11.46312	11.46312	11.46312	11.46312	11.46312
88	11.47524	11.47524	11.47524	11.47524	11.47524
89	11.48736	11.48736	11.48736	11.48736	11.48736
90	11.50100	11.50100	11.50100	11.50100	11.50100
91	11.51312	11.51312	11.51312	11.51312	11.51312
92	11.52524	11.52524	11.52524	11.52524	11.52524
93	11.53736	11.53736	11.53736	11.53736	11.53736
94	11.55100	11.55100	11.55100	11.55100	11.55100
95	11.56312	11.56312	11.56312	11.56312	11.56312
96	11.57524	11.57524	11.57524	11.57524	11.57524
97	11.58736	11.58736	11.58736	11.58736	11.58736
98	11.60100	11.60100	11.60100	11.60100	11.60100
99	11.61312	11.61312	11.61312	11.61312	11.61312
100	11.62524	11.62524	11.62524	11.62524	11.62524
101	11.63736	11.63736	11.63736	11.63736	11.63736
102	11.65100	11.65100	11.65100	11.65100	11.65100
103	11.66312	11.66312	11.66312	11.66312	11.66312
104	11.67524	11.67524	11.67524	11.67524	11.67524
105	11.68736	11.68736	11.68736	11.68736	11.68736
106	11.70100	11.70100	11.70100	11.70100	11.70100
107	11.71312	11.71312	11.71312	11.71312	11.71312
108	11.72524	11.72524	11.72524	11.72524	11.72524
109	11.73736	11.73736	11.73736	11.73736	11.73736
110	11.75100	11.75100	11.75100	11.75100	11.75100
111	11.76312	11.76312	11.76312	11.76312	11.76312
112	11.77524	11.77524	11.77524	11.77524	11.77524
113	11.78736	11.78736	11.78736	11.78736	11.78736
114	11.80100	11.80100	11.80100	11.80100	11.80100
115	11.81312	11.81312	11.81312	11.81312	11.81312
116	11.82524	11.82524	11.82524	11.82524	11.82524
117	11.83736	11.83736	11.83736	11.83736	11.83736
118	11.85100	11.85100	11.85100	11.85100	11.85100
119	11.86312	11.86312	11.86312	11.86312	11.86312
120	11.87524	11.87524	11.87524	11.87524	11.87524
121	11.88736	11.88736	11.88736	11.88736	11.88736
122	11.90100	11.90100	11.90100	11.90100	11.90100
123	11.91312	11.91312	11.91312	11.91312	11.91312
124	11.92524	11.92524	11.92524	11.92524	11.92524
125	11.93736	11.93736	11.93736	11.93736	11.93736
126	11.95100	11.95100	11.95100	11.95100	11.95100
127	11.96312	11.96312	11.96312	11.96312	11.96312
128	11.97524	11.97524	11.97524	11.97524	11.97524
129	11.98736	11.98736	11.98736	11.98736	11.98736
130	12.00100	12.00100	12.00100	12.00100	12.00100
131	12.01312	12.01312	12.01312	12.01312	12.01312
132	12.02524	12.02524	12.02524	12.02524	12.02524
133	12.03736	12.03736	12.03736	12.03736	12.03736
134	12.05100	12.05100	12.05100	12.05100	12.05100
135	12.06312	12.06312	12.06312	12.06312	12.06312
136	12.07524	12.07524	12.07524	12.07524	12.07524
137	12.08736	12.08736	12.08736	12.08736	12.08736
138	12.10100	12.10100	12.10100	12.10100	12.10100
139	12.11312	12.11312	12.11312	12.11312	12.11312
140	12.12524	12.12524	12.12524	12.12524	12.12524
141	12.13736	12.13736	12.13736	12.13736	12.13736
142	12.15100	12.15100	12.15100	12.15100	12.15100
143	12.16312	12.16312	12.16312	12.16312	12.16312
144	12.17524	12.17524	12.17524	12.17524	12.17524
145	12.18736	12.18736	12.18736	12.18736	12.18736
146	12.20100	12.20100	12.20100	12.20100	12.20100
147	12.21312	12.21312	12.21312	12.21312	12.21312
148	12.22524	12.22524	12.22524	12.22524	12.22524
149	12.23736	12.23736	12.23736	12.23736	12.23736
150	12.25100	12.25100	12.25100	12.25100	12.25100
151	12.26312	12.26312	12.26312	12.26312	

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 Business:	Water Heater New Construction, New Ducting, New Blower		Alternative Option:	Electric Resistance Water Heater 60 gallon			
Allowance:	\$275		Gas Type:	Electric			
Gas Utility:	Chesapeake Utilities Corporation		Electric Utility:	Tampa Electric Co.			
I. Installed Cost Data			IV. Installed Cost Data				
1. Equipment	\$2222		1. Equipment	\$2233			
2. Installation	482		2. Installation	180			
Total Cost: Cost	\$2704		Total Cost: Cost	\$2413			
3. Utility Rates			3. Utility Assistance				
4. Other Rates			4. Other Assistance				
V. Energy Consumed Data							
1. Energy Factor			1. Energy Factor	0.88	0.88		
2. Annual KWH			2. Annual KWH	3,222	3,222		
3. Annual Oil Gallons			3. Annual Oil Gallons	0	0		
4. Annual Gas Therms			4. Annual Gas Therms	0	0		
5. Diversified KW			5. Diversified KW				
6. Billing KWH			6. Billing KWH				
7. OAM (excluding energy)			7. OAM (excluding energy)				
8. Monthly Utility Incentive			8. Monthly Utility Incentive				
9. Average Life in Yrs			9. Average Life in Yrs				
10. Existing Remaining Life in Yrs			10. Existing Remaining Life in Yrs				
Gas Rates:		Rate					
6. Base, Winter	\$0.43128		11. Electric Rate per KWH	\$0.07235			
7. Base, Summer	\$0.43128		12. Electric Rate per KW, Winter	\$0.00000			
8. Seasonal, Winter			13. Electric Rate per KW, Summer	\$0.00000			
9. Seasonal, Summer			14. Electric Taxes & Fees	13.67%			
10. PQA, Winter	0.38977		15. Customer Chg	\$8.265			
11. PQA, Summer	0.38977						
12. Taxes & Fees	13.67%						
13. Customer Chg	\$8.265						
14. Ratio of Therms Consumed							
to Total	39.72%						
15. Average Life	12						
VI. Therms Displaced							
1. Energy Factor							
Therms Displaced, Winter							
2. Standard Rate							
Total	0.0						
II. Common Gas & Electric Data							
1. Discount Rate	0.05%						

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms	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
	Table 1	Table 2							10	11	12	13
i	2	3	4	5	6	7	8	9				
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

Benefit/Cost
Ratio

4.19

TABLE 1 Electric KW Cost WATER

Year	KWH Cost	Avg. KWH	Therms	Electric Cost	3.274
1	2	3	4	5	6
1998	\$0.0758	3,222	13.67%	\$27.75	
1999	\$0.0750	3,222	13.67%	\$28.3	
2000	\$0.0772	3,222	13.67%	\$29.1	
2001	\$0.0796	3,222	13.67%	\$30.0	
2002	\$0.0819	3,222	13.67%	\$30.9	
2003	\$0.0844	3,222	13.67%	\$31.8	
2004	\$0.0869	3,222	13.67%	\$32.9	
2005	\$0.0895	3,222	13.67%	\$33.9	
2006	\$0.0922	3,222	13.67%	\$35.0	
2007	\$0.0950	3,222	13.67%	\$36.1	
2008	\$0.0978	3,222	13.67%	\$37.3	
2009	\$0.1006	3,222	13.67%	\$38.5	
2010	\$0.1034	3,222	13.67%	\$39.8	
2011	\$0.1069	3,222	13.67%	\$40.9	
2012	\$0.1101	3,222	13.67%	\$42.3	
2013	\$0.1134	3,222	13.67%	\$44.15	
2014	\$0.1168	3,222	13.67%	\$46.28	
2015	\$0.1203	3,222	13.67%	\$48.41	
2016	\$0.1239	3,222	13.67%	\$48.54	
2017	\$0.1277	3,222	13.67%	\$48.68	

TABLE 3 Gas Customer Charge

Year	Monthly Cust. Chrg.	Annual Cust. Chrg.	Wkly Avg. Therms	Total Therms	6 Ratio Therms to Total
1	2	3	4	5	6
1998	\$6.50	\$78.00	166	423	.3672%
1999	\$6.70	\$80.24	166	423	.3672%
2000	\$6.90	\$82.75	166	423	.3672%
2001	\$7.10	\$85.23	166	423	.3672%
2002	\$7.32	\$87.79	166	423	.3672%
2003	\$7.54	\$90.42	166	423	.3672%
2004	\$7.76	\$93.14	166	423	.3672%
2005	\$7.99	\$95.93	166	423	.3672%
2006	\$8.22	\$98.81	166	423	.3672%
2007	\$8.48	\$101.77	166	423	.3672%
2008	\$8.74	\$104.63	166	423	.3672%
2009	\$9.00	\$107.97	166	423	.3672%
2010	\$9.27	\$111.21	166	423	.3672%
2011	\$9.55	\$114.50	166	423	.3672%
2012	\$9.83	\$117.80	166	423	.3672%
2013	\$10.13	\$121.52	166	423	.3672%
2014	\$10.43	\$125.17	166	423	.3672%
2015	\$10.74	\$128.92	166	423	.3672%
2016	\$11.07	\$132.79	166	423	.3672%
2017	\$11.40	\$136.77	166	423	.3672%

TABLE 2 Contracted-Conserved - Therms

Year	Therm Cost	Avg. Therms	Therm	4	3.274
1	2	3	4	5	6
1998	\$0.8210	166	13.67%	\$157	
1999	\$0.8407	166	13.67%	\$161	
2000	\$0.8710	166	13.67%	\$166	
2001	\$0.8972	166	13.67%	\$171	
2002	\$0.9241	166	13.67%	\$176	
2003	\$0.9518	166	13.67%	\$182	
2004	\$0.9803	166	13.67%	\$187	
2005	\$1.0096	166	13.67%	\$193	
2006	\$1.0390	166	13.67%	\$199	
2007	\$1.0691	166	13.67%	\$206	
2008	\$1.1003	166	13.67%	\$211	
2009	\$1.1325	166	13.67%	\$217	
2010	\$1.1706	166	13.67%	\$224	
2011	\$1.2097	166	13.67%	\$230	
2012	\$1.2419	166	13.67%	\$237	
2013	\$1.2791	166	13.67%	\$244	
2014	\$1.3175	166	13.67%	\$252	
2015	\$1.3570	166	13.67%	\$259	
2016	\$1.3977	166	13.67%	\$267	
2017	\$1.4397	166	13.67%	\$275	

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 Supplier:	Patterson New Customer, New Destiny, New Main		Wholesale Option:		Electric Resistance Products	
Gas Supplier:	Chesterfield Utilities Corporation		All Power Type:		Electric	
I. Installed Cost:	\$3278		Electric Utility:	Tampa Electric Co.		
1. Equipment:	\$1,480		V. Installed Cost Data:			
2. Installation:	579					
Total Cost, Cost:	\$2,059		1. Equipment	\$543		
3. Utility Rebate	\$275		2. Installation	616		
4. Other Rebates						
			Total Cost, Cost:	\$1,159		
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	0.0	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. PQA, Winter	0.28977					
11. PQA, Summer	0.28977					
12. Taxes & Fees	13.67%					
13. Customer Chg	\$4.50					
14. Ratio of Therms Consumed						
to Total	41.84%					
15. Average Life	19					
III. Common Gas & Electric Data						
1. Discount Rate	8.65%					
Gas Rates	Rate					
VI. Therms Displaced	Winter					
1. Energy Factor						
Therms Displaced	Winter					
2. Standard Rate						
Total	0.0					
Summer						
	0.0					
	0.0					

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms	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
	Table 1	Table 2							10	11	12	13
1	2	3	4	5	6	7	8	9				
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	\$45	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
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TABLE 1 Electric KWH Cost HEAT

Year	KWH Cost	Annual KWH	Tax & Fees	Electric Cost	3774
1998	\$0.0728	4,042	13.67%	\$534	
1999	\$0.0750	4,042	13.67%	\$545	
2000	\$0.0772	4,042	13.67%	\$555	
2001	\$0.0795	4,042	13.67%	\$565	
2002	\$0.0819	4,042	13.67%	\$576	
2003	\$0.0844	4,042	13.67%	\$586	
2004	\$0.0869	4,042	13.67%	\$596	
2005	\$0.0895	4,042	13.67%	\$611	
2006	\$0.0922	4,042	13.67%	\$624	
2007	\$0.0950	4,042	13.67%	\$638	
2008	\$0.0978	4,042	13.67%	\$650	
2009	\$0.1008	4,042	13.67%	\$663	
2010	\$0.1038	4,042	13.67%	\$677	
2011	\$0.1068	4,042	13.67%	\$691	
2012	\$0.1101	4,042	13.67%	\$705	
2013	\$0.1134	4,042	13.67%	\$721	
2014	\$0.1168	4,042	13.67%	\$737	
2015	\$0.1203	4,042	13.67%	\$753	
2016	\$0.1239	4,042	13.67%	\$769	
2017	\$0.1277	4,042	13.67%	\$787	

TABLE 3 Gas Customer Charge

Year	Monthly Cust. Chg.	Annual Cust. Chg.	Furnace Therms	Total Annual Therms	5	6
1998	\$6.50	\$78.00	177	423	41.84%	\$337
1999	\$6.70	\$80.34	177	423	41.84%	\$338
2000	\$6.90	\$82.75	177	423	41.84%	\$339
2001	\$7.10	\$85.23	177	423	41.84%	\$341
2002	\$7.32	\$87.79	177	423	41.84%	\$342
2003	\$7.54	\$90.42	177	423	41.84%	\$343
2004	\$7.76	\$93.14	177	423	41.84%	\$344
2005	\$7.98	\$95.93	177	423	41.84%	\$345
2006	\$8.20	\$98.81	177	423	41.84%	\$347
2007	\$8.48	\$101.77	177	423	41.84%	\$348
2008	\$8.74	\$104.83	177	423	41.84%	\$350
2009	\$9.00	\$107.97	177	423	41.84%	\$351
2010	\$9.27	\$111.21	177	423	41.84%	\$353
2011	\$9.50	\$114.50	177	423	41.84%	\$354
2012	\$9.83	\$117.88	177	423	41.84%	\$356
2013	\$10.13	\$121.52	177	423	41.84%	\$358
2014	\$10.43	\$125.17	177	423	41.84%	\$360
2015	\$10.74	\$128.82	177	423	41.84%	\$361
2016	\$11.07	\$132.79	177	423	41.84%	\$363
2017	\$11.40	\$136.77	177	423	41.84%	\$365

TABLE 2 Consumed-Displaced-Consumed - Therms

Year	Therm Cost	Annual Therms	Tax & Fees	Gas Cost	3774
1998	\$0.8210	177	13.67%	\$145	
1999	\$0.8457	177	13.67%	\$170	
2000	\$0.8710	177	13.67%	\$199	
2001	\$0.8972	177	13.67%	\$211	
2002	\$0.9241	177	13.67%	\$222	
2003	\$0.9518	177	13.67%	\$233	
2004	\$0.9803	177	13.67%	\$247	
2005	\$1.0096	177	13.67%	\$263	
2006	\$1.0491	177	13.67%	\$280	
2007	\$1.0713	177	13.67%	\$298	
2008	\$1.1034	177	13.67%	\$317	
2009	\$1.1360	177	13.67%	\$336	
2010	\$1.1706	177	13.67%	\$356	
2011	\$1.2057	177	13.67%	\$376	
2012	\$1.2419	177	13.67%	\$396	
2013	\$1.2791	177	13.67%	\$417	
2014	\$1.3175	177	13.67%	\$436	
2015	\$1.3570	177	13.67%	\$457	
2016	\$1.3977	177	13.67%	\$478	
2017	\$1.4397	177	13.67%	\$499	

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 Reseller:	Dodge West's "Customer, New Develop., New Mtn"		Reseller Operator:	Dodge Electric Co.		
Allowances:	\$75		Reseller Using:	Tampa Electric Co.		
Gas Utility:	Christopher Universal Corp.		Gas Plan/Type:			
I. Installed Cost Data			V. Installed Cost Data			
1. Equipment	\$400		1. Equipment	\$250		
2. Installation	180		2. Installation	107		
Total Cost, Cost	\$580		Total Cust. Cost	\$457		
3. Utility Rebate			3. Utility Allowance	50		
4. Other Rebates			4. Other Allowance			
II. Operating Data			V. Energy Conserved Data			
1. Energy Factor			1. Energy Factor			
Therms Consumed	Winter	Summer	2. Annual KWH	1,000	1,000	
2. Standard Rate	23.0	23.0	3. Annual Oil Gallons	965	965	
3. Seasonal Rate			4. Annual Gas Therms	0	0	
Total	23.0	23.0	5. Diversified KW	0	0	
4. Electric Consumption in KWH			6. Billing KW			
5. OMM (excluding energy)	\$10		7. OMM (excluding energy)	\$14		
Gas Rates	Rate		8. Monthly Utility incentive	\$0		
6. Base, Winter	\$0.43128		9. Average Life in Yrs	13		
7. Base, Summer	\$0.43128		10. Existing Remaining Life in Yrs	0		
8. Seasonal, Winter			11. Electric Rate per KWH			
9. Seasonal, Summer			12. Electric Rate per KW, Winter			
10. PQA, Winter	0.38977		13. Electric Rate per KW, Summer			
11. PQA, Summer	0.38977		14. Electric Taxes & Fees			
12. Taxes & Fees	13.67%		15 Customer Cng			
13. Customer Cng	\$6.50		16. Therms Displaced			
14. Ratio of Therms Consumed	10.67%		1. Energy Factor	1.00		
to Total			2. Standard Rate			
15. Average Life	13		3. Common Gas & Electric Data			
16. Discount Rate	8.65%		1. Discount Rate			
			2. Standard Rate			
			Total	0.0		
			Summer	0.0		

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost	No. 2 Fuel Oil	Consumed -Conserved -Displaced Gas Therms	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
	Table 1	Table 2							10	11	12	13
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	\$29	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
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TABLE 1 Electric KWH Cost Driver

Year	KWH Cost	Annual KWH	Tax & Electric Cost	Total
1998	\$0.0728	9805	13.67%	\$862
1999	\$0.0730	9805	13.67%	\$864
2000	\$0.0772	9805	13.67%	\$866
2001	\$0.0798	9805	13.67%	\$868
2002	\$0.0819	9805	13.67%	\$870
2003	\$0.0844	9805	13.67%	\$874
2004	\$0.0859	9805	13.67%	\$877
2005	\$0.0860	9805	13.67%	\$878
2006	\$0.0862	9805	13.67%	\$879
2007	\$0.0860	9805	13.67%	\$878
2008	\$0.0878	9805	13.67%	\$882
2009	\$0.1008	9805	13.67%	\$913
2010	\$0.1028	9805	13.67%	\$915
2011	\$0.1039	9805	13.67%	\$912
2012	\$0.1101	9805	13.67%	\$912
2013	\$0.1134	9805	13.67%	\$917
2014	\$0.1158	9805	13.67%	\$919
2015	\$0.1203	9805	13.67%	\$930
2016	\$0.1239	9805	13.67%	\$943
2017	\$0.1277	9805	13.67%	\$943

TABLE 3 Gas Customer Charge

Year	Cust. Chrg.	Annual Thrus.	Driver Thrus.	Total	Driver Thrus. to Total	Gas Consumer Change
1998	\$8.50	\$78.00	\$8	\$87.00	46	42%
1999	\$8.70	\$80.24	\$8	\$88.24	46	42%
2000	\$8.90	\$82.75	\$8	\$83.75	46	42%
2001	\$8.70	\$85.23	\$8	\$85.23	46	42%
2002	\$7.32	\$87.79	\$8	\$87.79	46	42%
2003	\$7.34	\$90.42	\$8	\$90.42	46	42%
2004	\$7.76	\$93.14	\$8	\$93.14	46	42%
2005	\$7.69	\$95.93	\$8	\$95.93	46	42%
2006	\$8.23	\$98.61	\$8	\$98.61	46	42%
2007	\$8.49	\$101.77	\$8	\$101.77	46	42%
2008	\$8.74	\$104.80	\$8	\$104.80	46	42%
2009	\$9.00	\$107.97	\$8	\$107.97	46	42%
2010	\$9.27	\$111.21	\$8	\$111.21	46	42%
2011	\$9.55	\$114.35	\$8	\$114.35	46	42%
2012	\$9.83	\$117.50	\$8	\$117.50	46	42%
2013	\$10.13	\$121.52	\$8	\$121.52	46	42%
2014	\$10.43	\$125.17	\$8	\$125.17	46	42%
2015	\$10.74	\$128.92	\$8	\$128.92	46	42%
2016	\$11.07	\$132.79	\$8	\$132.79	46	42%
2017	\$11.40	\$136.77	\$8	\$136.77	46	42%

TABLE 2 Consumed-Distributed-Contracted - Thrus.

Year	Thrus. Cost	Annual Thrus.	Tax Fess.	Total
1998	\$0.8210	46	13.67%	\$843
1999	\$0.8407	46	13.67%	\$844
2000	\$0.8710	46	13.67%	\$846
2001	\$0.8972	46	13.67%	\$847
2002	\$0.9241	46	13.67%	\$848
2003	\$0.9518	46	13.67%	\$850
2004	\$0.9803	46	13.67%	\$851
2005	\$1.0098	46	13.67%	\$853
2006	\$1.0491	46	13.67%	\$854
2007	\$1.0713	46	13.67%	\$856
2008	\$1.1024	46	13.67%	\$858
2009	\$1.1335	46	13.67%	\$859
2010	\$1.1706	46	13.67%	\$861
2011	\$1.2057	46	13.67%	\$863
2012	\$1.2410	46	13.67%	\$865
2013	\$1.2791	46	13.67%	\$867
2014	\$1.3175	46	13.67%	\$869
2015	\$1.3570	46	13.67%	\$871
2016	\$1.3977	46	13.67%	\$873
2017	\$1.4387	46	13.67%	\$875

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 Supplier:	Rates@ New Customer, New Delivery; New Mtn		Business Option:	Ranges	Electric Type:	Electric
Allocation:	\$75		Electric Utility:	Tampa Electric Co.		
Gas Utility:	Chesapeake Utilities Corporation		Net Installed Cost Data:			
I. Installed Cost Data			1. Equipment	\$1500		
			2. Installation	107		
			Total Instl. Cost:			
				\$752		
			3. Utility Allowance			
			4. Other Allowance			
			Total Cost:			
				\$75		
			V. Energy Conserved Data			
			1. Energy Factor	1.00	New	Existing
			2. Annual kWh	687		
			3. Annual Oil Gallons	0		
			4. Annual Gas Therms	0		
			Total			
			5. Diversified KW		Winter	Summer
			6. Billing KW			
			7. OAM (excluding energy)	\$12		
			8. Monthly Utility Initiative	50		
			9. Average Life in Yrs	19		
			10. Existing Remaining Life in Yrs	0		
			Total			
			11. Electric Rate per kWh	\$0.0725		
			12. Electric Rate per kW, Winter	\$0.0000		
			13. Electric Rate per kW, Summer	\$0.0000		
			14. Electric Taxes & Fees	13.87%		
			15. Customer Cng	\$0.05		
			Total			
			14. Ratio of Therms Consumed	7.57%	Winter	
			to Total			
			15. Average Life	19		
			Total			
			16. Common Gas & Electric Data			
			1. Discount Rate	8.65%		
			Total			
			17. Standard Rate	0.0	Summer	
			Total			

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost	No. 2 Fuel Oil	Consumed		Gas Appliance O&M	Gas Appliance O&M	Gas Customer Charge	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
	Table 1	Table 2	-Conserved	-Displaced	Alternate Appliance O&M	Gas Therms	Table 3	-		10	11	12	13
1	2	3	4	5	6	7	8	9					
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
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TABLE 1 Electric KV Cost Range

Year	KWH Cost	Annual KWH	Tariff Fee	Electric Cost
1990	\$0.0778	687	13.67%	\$1.17
1995	\$0.0750	687	13.67%	\$0.90
2000	\$0.0772	687	13.67%	\$0.90
2001	\$0.0718	687	13.67%	\$0.62
2002	\$0.0819	687	13.67%	\$0.84
2003	\$0.0744	687	13.67%	\$0.66
2004	\$0.0860	687	13.67%	\$0.89
2005	\$0.0895	687	13.67%	\$1.12
2006	\$0.0822	687	13.67%	\$0.77
2007	\$0.0860	687	13.67%	\$0.74
2008	\$0.0878	687	13.67%	\$0.76
2009	\$0.1008	687	13.67%	\$1.19
2010	\$0.1038	687	13.67%	\$1.81
2011	\$0.1069	687	13.67%	\$2.53
2012	\$0.1101	687	13.67%	\$3.25
2013	\$0.1134	687	13.67%	\$3.97
2014	\$0.1168	687	13.67%	\$4.61
2015	\$0.1203	687	13.67%	\$5.24
2016	\$0.1239	687	13.67%	\$5.87
2017	\$0.1277	687	13.67%	\$6.50

TABLE 3 Gas Customer Charge

Year	Cost	Annual Thems	Range Annual Thems	Total	Ratio Thems Consumed to Total	Gas Customer Charge
1988	\$0.50	\$78.00	\$2	\$2	42%	7.57%
1989	\$0.70	\$80.34	\$2	\$2	42%	7.57%
2000	\$0.90	\$82.75	\$2	\$2	42%	7.57%
2001	\$0.10	\$85.23	\$2	\$2	42%	7.57%
2002	\$0.12	\$87.70	\$2	\$2	42%	7.57%
2003	\$0.14	\$90.2	\$2	\$2	42%	7.57%
2004	\$0.16	\$92.74	\$2	\$2	42%	7.57%
2005	\$0.18	\$95.30	\$2	\$2	42%	7.57%
2006	\$0.20	\$98.81	\$2	\$2	42%	7.57%
2007	\$0.20	\$101.77	\$2	\$2	42%	7.57%
2008	\$0.24	\$104.83	\$2	\$2	42%	7.57%
2009	\$0.26	\$107.97	\$2	\$2	42%	7.57%
2010	\$0.27	\$111.21	\$2	\$2	42%	7.57%
2011	\$0.27	\$114.55	\$2	\$2	42%	7.57%
2012	\$0.32	\$117.88	\$2	\$2	42%	7.57%
2013	\$0.13	\$121.52	\$2	\$2	42%	7.57%
2014	\$0.43	\$125.17	\$2	\$2	42%	7.57%
2015	\$0.74	\$128.92	\$2	\$2	42%	7.57%
2016	\$1.07	\$132.79	\$2	\$2	42%	7.57%
2017	\$1.40	\$136.77	\$2	\$2	42%	7.57%

TABLE 2 Consumer-Dispersed-Consumer - Themes

Year	Them Cost	Annual Thems	Tariff Fee	Gas Cost
1990	\$0.0210	\$2	13.67%	\$0.00
1995	\$0.0457	\$2	13.67%	\$0.11
2000	\$0.0710	\$2	13.67%	\$0.22
2001	\$0.0972	\$2	13.67%	\$0.32
2002	\$0.0241	\$2	13.67%	\$0.44
2003	\$0.0518	\$2	13.67%	\$0.56
2004	\$0.0803	\$2	13.67%	\$0.68
2005	\$1.0088	\$2	13.67%	\$0.81
2006	\$1.0401	\$2	13.67%	\$0.92
2007	\$1.0713	\$2	13.67%	\$1.03
2008	\$1.1024	\$2	13.67%	\$1.14
2009	\$1.1335	\$2	13.67%	\$1.25
2010	\$1.1706	\$2	13.67%	\$1.36
2011	\$1.2057	\$2	13.67%	\$1.47
2012	\$1.2419	\$2	13.67%	\$1.58
2013	\$1.2791	\$2	13.67%	\$1.69
2014	\$1.3175	\$2	13.67%	\$1.80
2015	\$1.3570	\$2	13.67%	\$1.91
2016	\$1.3977	\$2	13.67%	\$2.02
2017	\$1.4397	\$2	13.67%	\$2.12

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

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Meter & Service Line Removal	Total Columns 2 thru 4	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Main O&M	Gas Supply Cost	Other Cost	Program & Allowance Cost	Total Columns 6 thru 10
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
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Table 1

Table 3

Table 2

Table 4

Table 5

Year	Period	Population		GDP		GDP per capita		GDP growth		GDP per capita growth	
		Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast
2008	Q1	101.0	101.0	1.2714	1.2843	12,871	13,133	-0.2%	-0.2%	-0.2%	-0.2%
2008	Q2	101.0	101.0	1.2587	1.2643	12,700	12,933	-0.5%	-0.5%	-0.5%	-0.5%
2008	Q3	101.0	101.0	1.2460	1.2520	12,530	12,763	-0.6%	-0.6%	-0.6%	-0.6%
2008	Q4	101.0	101.0	1.2333	1.2473	12,360	12,593	-0.7%	-0.7%	-0.7%	-0.7%
2008	YTD	101.0	101.0	1.2306	1.2446	12,290	12,523	-0.8%	-0.8%	-0.8%	-0.8%
2008	Full Year	101.0	101.0	1.2307	1.2446	12,290	12,523	-0.8%	-0.8%	-0.8%	-0.8%
2009	Q1	101.0	101.0	1.2770	1.2920	12,871	13,233	-0.5%	-0.5%	-0.5%	-0.5%
2009	Q2	101.0	101.0	1.2681	1.2830	12,700	13,033	-0.6%	-0.6%	-0.6%	-0.6%
2009	Q3	101.0	101.0	1.2590	1.2740	12,530	12,863	-0.7%	-0.7%	-0.7%	-0.7%
2009	Q4	101.0	101.0	1.2524	1.2674	12,360	12,693	-0.8%	-0.8%	-0.8%	-0.8%
2009	YTD	101.0	101.0	1.2514	1.2664	12,290	12,623	-0.8%	-0.8%	-0.8%	-0.8%
2009	Full Year	101.0	101.0	1.2514	1.2664	12,290	12,623	-0.8%	-0.8%	-0.8%	-0.8%
2010	Q1	101.0	101.0	1.2526	1.2666	12,290	12,553	-0.8%	-0.8%	-0.8%	-0.8%
2010	Q2	101.0	101.0	1.2450	1.2590	12,120	12,483	-0.9%	-0.9%	-0.9%	-0.9%
2010	Q3	101.0	101.0	1.2373	1.2513	11,950	12,413	-1.0%	-1.0%	-1.0%	-1.0%
2010	Q4	101.0	101.0	1.2317	1.2437	11,780	12,343	-1.1%	-1.1%	-1.1%	-1.1%
2010	YTD	101.0	101.0	1.2317	1.2437	11,780	12,343	-1.1%	-1.1%	-1.1%	-1.1%
2010	Full Year	101.0	101.0	1.2317	1.2437	11,780	12,343	-1.1%	-1.1%	-1.1%	-1.1%
2011	Q1	101.0	101.0	1.2340	1.2470	11,610	12,273	-1.2%	-1.2%	-1.2%	-1.2%
2011	Q2	101.0	101.0	1.2263	1.2393	11,440	12,203	-1.3%	-1.3%	-1.3%	-1.3%
2011	Q3	101.0	101.0	1.2187	1.2317	11,270	12,133	-1.4%	-1.4%	-1.4%	-1.4%
2011	Q4	101.0	101.0	1.2131	1.2251	11,100	12,063	-1.5%	-1.5%	-1.5%	-1.5%
2011	YTD	101.0	101.0	1.2131	1.2251	11,100	12,063	-1.5%	-1.5%	-1.5%	-1.5%
2011	Full Year	101.0	101.0	1.2131	1.2251	11,100	12,063	-1.5%	-1.5%	-1.5%	-1.5%
2012	Q1	101.0	101.0	1.2154	1.2274	10,930	11,993	-1.6%	-1.6%	-1.6%	-1.6%
2012	Q2	101.0	101.0	1.2077	1.2197	10,760	11,923	-1.7%	-1.7%	-1.7%	-1.7%
2012	Q3	101.0	101.0	1.2001	1.2121	10,590	11,853	-1.8%	-1.8%	-1.8%	-1.8%
2012	Q4	101.0	101.0	1.1945	1.2065	10,420	11,783	-1.9%	-1.9%	-1.9%	-1.9%
2012	YTD	101.0	101.0	1.1945	1.2065	10,420	11,783	-1.9%	-1.9%	-1.9%	-1.9%
2012	Full Year	101.0	101.0	1.1945	1.2065	10,420	11,783	-1.9%	-1.9%	-1.9%	-1.9%
2013	Q1	101.0	101.0	1.1968	1.2088	10,250	11,713	-2.0%	-2.0%	-2.0%	-2.0%
2013	Q2	101.0	101.0	1.1891	1.2011	10,080	11,643	-2.1%	-2.1%	-2.1%	-2.1%
2013	Q3	101.0	101.0	1.1815	1.1935	9,910	11,573	-2.2%	-2.2%	-2.2%	-2.2%
2013	Q4	101.0	101.0	1.1759	1.1889	9,740	11,503	-2.3%	-2.3%	-2.3%	-2.3%
2013	YTD	101.0	101.0	1.1759	1.1889	9,740	11,503	-2.3%	-2.3%	-2.3%	-2.3%
2013	Full Year	101.0	101.0	1.1759	1.1889	9,740	11,503	-2.3%	-2.3%	-2.3%	-2.3%
2014	Q1	101.0	101.0	1.1782	1.1902	9,570	11,433	-2.4%	-2.4%	-2.4%	-2.4%
2014	Q2	101.0	101.0	1.1705	1.1825	9,400	11,363	-2.5%	-2.5%	-2.5%	-2.5%
2014	Q3	101.0	101.0	1.1629	1.1753	9,230	11,293	-2.6%	-2.6%	-2.6%	-2.6%
2014	Q4	101.0	101.0	1.1573	1.1693	9,060	11,223	-2.7%	-2.7%	-2.7%	-2.7%
2014	YTD	101.0	101.0	1.1573	1.1693	9,060	11,223	-2.7%	-2.7%	-2.7%	-2.7%
2014	Full Year	101.0	101.0	1.1573	1.1693	9,060	11,223	-2.7%	-2.7%	-2.7%	-2.7%
2015	Q1	101.0	101.0	1.1596	1.1716	8,890	11,153	-2.8%	-2.8%	-2.8%	-2.8%
2015	Q2	101.0	101.0	1.1519	1.1641	8,720	11,083	-2.9%	-2.9%	-2.9%	-2.9%
2015	Q3	101.0	101.0	1.1443	1.1567	8,550	11,013	-3.0%	-3.0%	-3.0%	-3.0%
2015	Q4	101.0	101.0	1.1387	1.1501	8,380	10,943	-3.1%	-3.1%	-3.1%	-3.1%
2015	YTD	101.0	101.0	1.1387	1.1501	8,380	10,943	-3.1%	-3.1%	-3.1%	-3.1%
2015	Full Year	101.0	101.0	1.1387	1.1501	8,380	10,943	-3.1%	-3.1%	-3.1%	-3.1%
2016	Q1	101.0	101.0	1.1410	1.1520	8,210	10,873	-3.2%	-3.2%	-3.2%	-3.2%
2016	Q2	101.0	101.0	1.1333	1.1448	8,040	10,803	-3.3%	-3.3%	-3.3%	-3.3%
2016	Q3	101.0	101.0	1.1257	1.1375	7,870	10,733	-3.4%	-3.4%	-3.4%	-3.4%
2016	Q4	101.0	101.0	1.1191	1.1301	7,700	10,663	-3.5%	-3.5%	-3.5%	-3.5%
2016	YTD	101.0	101.0	1.1191	1.1301	7,700	10,663	-3.5%	-3.5%	-3.5%	-3.5%
2016	Full Year	101.0	101.0	1.1191	1.1301	7,700	10,663	-3.5%	-3.5%	-3.5%	-3.5%
2017	Q1	101.0	101.0	1.1214	1.1334	7,530	10,593	-3.6%	-3.6%	-3.6%	-3.6%
2017	Q2	101.0	101.0	1.1137	1.1257	7,360	10,523	-3.7%	-3.7%	-3.7%	-3.7%
2017	Q3	101.0	101.0	1.1061	1.1175	7,190	10,453	-3.8%	-3.8%	-3.8%	-3.8%
2017	Q4	101.0	101.0	1.1005	1.1101	7,020	10,383	-3.9%	-3.9%	-3.9%	-3.9%
2017	YTD	101.0	101.0	1.1005	1.1101	7,020	10,383	-3.9%	-3.9%	-3.9%	-3.9%
2017	Full Year	101.0	101.0	1.1005	1.1101	7,020	10,383	-3.9%	-3.9%	-3.9%	-3.9%
2018	Q1	101.0	101.0	1.1237	1.1357	6,850	10,313	-4.0%	-4.0%	-4.0%	-4.0%
2018	Q2	101.0	101.0	1.1160	1.1277	6,680	10,243	-4.1%	-4.1%	-4.1%	-4.1%
2018	Q3	101.0	101.0	1.1084	1.1204	6,510	10,173	-4.2%	-4.2%	-4.2%	-4.2%
2018	Q4	101.0	101.0	1.1018	1.1131	6,340	10,103	-4.3%	-4.3%	-4.3%	-4.3%
2018	YTD	101.0	101.0	1.1018	1.1131	6,340	10,103	-4.3%	-4.3%	-4.3%	-4.3%
2018	Full Year	101.0	101.0	1.1018	1.1131	6,340	10,103	-4.3%	-4.3%	-4.3%	-4.3%
2019	Q1	101.0	101.0	1.1041	1.1151	6,170	10,033	-4.4%	-4.4%	-4.4%	-4.4%
2019	Q2	101.0	101.0	1.0964	1.1074	6,000	9,963	-4.5%	-4.5%	-4.5%	-4.5%
2019	Q3	101.0	101.0	1.0888	1.1001	5,830	9,893	-4.6%	-4.6%	-4.6%	-4.6%
2019	Q4	101.0	101.0	1.0822	1.0927	5,660	9,823	-4.7%	-4.7%	-4.7%	-4.7%
2019	YTD	101.0	101.0	1.0822	1.0927	5,660	9,823	-4.7%	-4.7%	-4.7%	-4.7%
2019	Full Year	101.0	101.0	1.0822	1.0927	5,660	9,823	-4.7%	-4.7%	-4.7%	-4.7%
2020	Q1	101.0	101.0	1.0845	1.0965	5,490	9,753	-4.8%	-4.8%	-4.8%	-4.8%
2020	Q2	101.0	101.0	1.0768	1.0888	5,320	9,683	-4.9%	-4.9%	-4.9%	-4.9%
2020	Q3	101.0	101.0	1.0692	1.0812	5,150	9,613	-5.0%	-5.0%	-5.0%	-5.0%
2020	Q4	101.0	101.0	1.0626	1.0736	4,980	9,543	-5.1%	-5.1%	-5.1%	-5.1%
2020	YTD	101.0	101.0	1.0626	1.0736	4,980	9,543	-5.1%	-5.1%	-5.1%	-5.1%
2020	Full Year	101.0	101.0	1.0626	1.0736	4,980	9,543	-5.1%	-5.1%	-5.1%	-5.1%
2021	Q1	101.0	101.0	1.0649	1.0779	4,810	9,473	-5.2%	-5.2%	-5.2%	-5.2%
2021	Q2	101.0	101.0	1.0572	1.0692	4,640	9,403	-5.3%	-5.3%	-5.3%	-5.3%
2021	Q3	101.0	101.0	1.0496	1.0616	4,470	9,333	-5.4%	-5.4%	-5.4%	-5.4%
2021	Q4	101.0	101.0	1.0429	1.0539	4,300	9,263	-5.5%	-5.5%	-5.5%	-5.5%
2021	YTD	101.0	101.0	1.0429	1.0539	4,300	9,263	-5.5%	-5.5%	-5.5%	-5.5%
2021	Full Year	101.0	101.0	1.0429	1.0539	4,300	9,263	-5.5%	-5.5%	-5.5%	-5.5%
2022	Q1	101.0	101.0	1.0452	1.0572	4,130	9,193	-5.6%	-5.6%	-5.6%	-5.6%
2022	Q2	101.0	101.0	1.0375	1.0485	3,960	9,123	-5.7%	-5.7%	-5.7%	-5.7%
2022	Q3	101.0	101.0	1.0300	1.0400	3,800	9,053	-5.8%	-5.8%	-5.8%	-5.8%
2022	Q4	101.0	101.0	1.0223	1.0313	3,630	8,983	-5.9%	-5.9%	-5.9%	-5.9%
2022	YTD	101.0	101.0	1.0223	1.0313	3,630	8,983	-5.9%	-5.9%	-5.9%	-5.9%
2022	Full Year	101.0	101.0	1.0223	1.0313	3,630	8,983	-5.9%	-5.9%	-5.9%	-5.9%
2023	Q1	101.0	101.0	1.0246	1.0356	3,460	8,913	-6.0%	-6.0%	-6.0%	-6.0%
2023	Q2	101.0	101.0	1.0169	1.0269	3,300	8,843	-6.1%	-6.1%	-6.1%	-6.1%
2023	Q3	101.0	101.0	1.0093	1.0183	3,130	8,773	-6.2%	-6.2%	-6.2%	-6.2%
2023	Q4	101.0	101.0	1.0016	1.0106	3,000	8,703	-6.3%	-6.3%	-6.3%	-6.3%
2023	YTD	101.0	101.0	1.0016	1.0106	3,000	8,703	-6.3%	-6.3%	-6.3%	-6.3%
2023	Full Year	101.0	101.0	1.0016	1.0106	3,000	8,703	-6.3%	-6.3%	-6.3%	-6.3%
2024	Q1	101.0	101.0	1.0039	1.0149	2,830	8,633	-6.4%	-6.4%	-6.4%	-6.4%
2024	Q2	101.0	101.0	0.9962	1.0062	2,670	8,563	-6.5%	-6.5%	-6.5%	-6.5%
2024	Q3	101.0	101.0	0.9886	0.9996	2,510	8,493	-6.6%	-6.6%	-6.6%	-6.6%
2024	Q4	101.0	101.0	0.9809	0.9929	2,350	8,423	-6.7%	-6.7%	-6.7%	-6.7%
2024	YTD	101.0	101.0	0.9809	0.9929	2,350	8,423	-6.7%	-6.7%	-6.7%	-6.7%
2024	Full Year	101.0	101.0	0.9809	0.9929	2,350	8,423	-6.7%	-6.7%	-6.7%	-6.7%
2025	Q1	101.0	101.0								

Rate Impact Measure Test Data

All Costs In	1995	dollars.	Analysis Start Year:	1990	Number of Years:	20	Electric Rate Number
Gas Program:	R&D Residential Appliance Replacement		Gas Rate Number				
Gas Source:	Program		Gas Source Optics:		Param:		
Gas Source:	Residence		Gas Plant Type:		Param:		
Gas Utility:	Commonwealth Utilities Corporation		Gas Utility:		Param:		
Gas Utility:	\$5000		Gas Utility:		Param:		
			IV. New Customer Installation Costs				
1. Avoided Meter Removal Cost:	\$		1. Supply Main		\$	0	
2. Avoided Cut & Cap Cost:	0		2. Development Main		0		
Total Costs	0		3. Service		364		
			4. Meter		205		
			Total Cost, Cost		569		
5. Utility Allowance			5. Utility Allowance		\$330		
6. Program Cost			6. Program Cost		\$48		
7. New Customer Admin. Cost \$/month			7. New Customer Admin. Cost \$/month		\$2		
8. Main O&M (Percent)			8. Main O&M (Percent)		2.0%		
			V. Gas Supply Cost				
			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		
			VI. System Shrinkage				
			10. Therms Consumed				
			1. Energy Factor		0.90		
			2. Annual Gas Therms		0.0		
			11. Therms Displaced				
			1. Energy Factor		1.00		
			2. Therms Displaced				
			12. Standard Rate				
			13. Customer Chg		0.00		
			14. Ratio of Therms Consumed		0.00		
			to Total		0.00		
			15. Average Life		0.00		
			III. Common Gas & Electric Data				
			1. Discount Rate		0.05%		

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 Table 6	Program & Allowance Cost Table 7	Total Columns 6 thru 10
1	2	3	4	5	6	7	8	9	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

Year	Program	Budget Basis	PDI Basis	Total Budget		Total PDI	Total PDI %
				Actual	Budget		
1998	177	\$0.20739	\$0.30077	\$0.27152	\$0.31752	\$1.165	
1999	177	\$0.14027	\$0.14714	\$0.14566	\$0.15055	\$1.154	
2000	177	\$0.14752	\$0.15120	\$0.15710	\$0.16710	\$1.159	
2001	177	\$0.17239	\$0.18281	\$0.18671	\$0.19719	\$1.164	
2002	177	\$0.17239	\$0.18280	\$0.18670	\$0.19718	\$1.164	
2003	177	\$0.18926	\$0.19626	\$0.19879	\$0.20179	\$1.166	
2004	177	\$0.18926	\$0.19626	\$0.20060	\$0.21774	\$1.174	
2005	177	\$0.20540	\$0.21700	\$0.20979	\$0.21679	\$1.179	
2006	177	\$0.18461	\$0.18627	\$0.18462	\$0.19456	\$1.164	
2007	177	\$0.18277	\$0.18568	\$0.18278	\$0.19123	\$1.165	
2008	177	\$0.18276	\$0.18568	\$0.18277	\$0.19123	\$1.165	
2009	177	\$0.18276	\$0.18568	\$0.18277	\$0.19123	\$1.165	
2010	177	\$0.18276	\$0.18568	\$0.18277	\$0.19123	\$1.165	
2011	177	\$0.18272	\$0.18564	\$0.18273	\$0.19123	\$1.165	
2012	177	\$0.18272	\$0.18564	\$0.18273	\$0.19123	\$1.165	
2013	177	\$0.18272	\$0.18564	\$0.18273	\$0.19123	\$1.165	
2014	177	\$0.18272	\$0.18564	\$0.18273	\$0.19123	\$1.165	
2015	177	\$0.17121	\$0.18442	\$0.17357	\$0.18573	\$1.164	
2016	177	\$0.17121	\$0.18442	\$0.17356	\$0.18571	\$1.164	
2017	177	\$0.17121	\$0.18442	\$0.17356	\$0.18571	\$1.164	

Table 3

Year	Budget Month	Department	Category	Current		Projected	
				Actual	Variance	Actual	Variance
2023	January	Marketing	Ad Spend	\$1200	\$100	\$1250	\$150
2023	February	Sales	Commission	\$1500	\$200	\$1450	\$180
2023	March	Customer Service	Avg. Call Time	1.5%	-1.5%	1.6%	-1.6%
2023	April	Product Dev.	Dev. Hours	1.5%	-1.5%	1.6%	-1.6%
2023	May	Logistics	Delivery Delays	1.5%	-1.5%	1.6%	-1.6%
2023	June	Human Resources	Employee Turnover	1.5%	-1.5%	1.6%	-1.6%
2023	July	R&D	Research Progress	1.5%	-1.5%	1.6%	-1.6%
2023	August	Finance	Revenue Growth	1.5%	-1.5%	1.6%	-1.6%
2023	September	Operations	Efficiency Rate	1.5%	-1.5%	1.6%	-1.6%
2023	October	IT	System Uptime	1.5%	-1.5%	1.6%	-1.6%
2023	November	Quality Control	Defect Rate	1.5%	-1.5%	1.6%	-1.6%
2023	December	Customer Support	Avg. Response Time	1.5%	-1.5%	1.6%	-1.6%
2024	January	Marketing	Ad Spend	\$1250	\$150	\$1300	\$200
2024	February	Sales	Commission	\$1450	\$180	\$1500	\$220
2024	March	Customer Service	Avg. Call Time	1.6%	-1.6%	1.7%	-1.7%
2024	April	Product Dev.	Dev. Hours	1.6%	-1.6%	1.7%	-1.7%
2024	May	Logistics	Delivery Delays	1.6%	-1.6%	1.7%	-1.7%
2024	June	Human Resources	Employee Turnover	1.6%	-1.6%	1.7%	-1.7%
2024	July	R&D	Research Progress	1.6%	-1.6%	1.7%	-1.7%
2024	August	Finance	Revenue Growth	1.6%	-1.6%	1.7%	-1.7%
2024	September	Operations	Efficiency Rate	1.6%	-1.6%	1.7%	-1.7%
2024	October	IT	System Uptime	1.6%	-1.6%	1.7%	-1.7%
2024	November	Quality Control	Defect Rate	1.6%	-1.6%	1.7%	-1.7%
2024	December	Customer Support	Avg. Response Time	1.6%	-1.6%	1.7%	-1.7%

Table 2

Table 4

Year	Average Age, Years	Population Change	Population Growth Rate, %	New Customer Acquisition		Total Customers Base	New Customer Acquisition Rate, %
				Acquisition Rate, %	Acquisition Value, \$		
2010	35.0	+0.5%	+0.3%	4.5%	\$1,200	11,500	4.0%
2011	35.1	+0.5%	+0.3%	4.4%	\$1,200	11,500	3.9%
2012	35.2	+0.5%	+0.3%	4.3%	\$1,200	11,500	3.8%
2013	35.3	+0.5%	+0.3%	4.2%	\$1,200	11,500	3.7%
2014	35.4	+0.5%	+0.3%	4.1%	\$1,200	11,500	3.6%
2015	35.5	+0.5%	+0.3%	4.0%	\$1,200	11,500	3.5%
2016	35.6	+0.5%	+0.3%	3.9%	\$1,200	11,500	3.4%
2017	35.7	+0.5%	+0.3%	3.8%	\$1,200	11,500	3.3%

Table 5

Rate Impact Measure Test Data

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Meter & Service Line Removal	Total Columns 2 thru 4	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Main O&M Table 4	Gas Supply Cost Table 5	Other Cost Table 6	Program & Allowance Cost Table 7	Total Columns 6 thru 10
1	2	3	4	5	6	7	8	9	10	11
1998	\$38	\$8	\$0	\$46	\$5	\$3	\$14	\$0	\$98	\$119
1999	\$39	\$9	\$0	\$48	\$5	\$3	\$14	\$0	\$0	\$22
2000	\$40	\$9	\$0	\$49	\$5	\$3	\$15	\$0	\$0	\$22
2001	\$41	\$9	\$0	\$50	\$4	\$3	\$15	\$0	\$0	\$23
2002	\$43	\$10	\$0	\$53	\$4	\$3	\$16	\$0	\$0	\$23
2003	\$44	\$10	\$0	\$54	\$4	\$3	\$16	\$0	\$0	\$23
2004	\$45	\$10	\$0	\$55	\$4	\$3	\$17	\$0	\$0	\$24
2005	\$46	\$10	\$0	\$56	\$4	\$3	\$17	\$0	\$0	\$24
2006	\$48	\$11	\$0	\$59	\$4	\$3	\$18	\$0	\$0	\$25
2007	\$49	\$11	\$0	\$60	\$3	\$4	\$18	\$0	\$0	\$25
2008	\$51	\$11	\$0	\$62	\$3	\$4	\$19	\$0	\$0	\$26
2009	\$52	\$12	\$0	\$64	\$3	\$4	\$19	\$0	\$0	\$26
2010	\$54	\$12	\$0	\$66	\$3	\$4	\$20	\$0	\$0	\$27
2011	\$55	\$12	\$0	\$67	\$3	\$4	\$21	\$0	\$0	\$27
2012	\$57	\$13	\$0	\$70	\$3	\$4	\$21	\$0	\$0	\$28
2013	\$59	\$13	\$0	\$72	\$2	\$4	\$22	\$0	\$0	\$28
2014	\$61	\$14	\$0	\$75	\$2	\$4	\$22	\$0	\$0	\$29
2015	\$62	\$14	\$0	\$76	\$2	\$4	\$23	\$0	\$0	\$30
2016	\$64	\$14	\$0	\$78	\$2	\$5	\$24	\$0	\$0	\$30
2017	\$63	\$15	\$0	\$81	\$2	\$5	\$25	\$0	\$0	\$31

Present Value
of Benefits

\$537

Present Value
Of Costs

Benefit/Cost Ratio	1.68
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Table 1

Year	Project Name	Project Address	Project Type	Project Status
2010	Project Alpha	123 Main Street	Residential	Completed
2010	Project Beta	456 Elm Street	Commercial	Ongoing
2011	Project Gamma	789 Oak Street	Residential	Completed
2011	Project Delta	101 Pine Street	Commercial	Ongoing
2012	Project Epsilon	202 Cedar Street	Residential	Completed
2012	Project Zeta	303 Birch Street	Commercial	Ongoing
2013	Project Eta	404 Spruce Street	Residential	Completed
2013	Project Theta	505 Fir Street	Commercial	Ongoing
2014	Project Iota	606 Willow Street	Residential	Completed
2014	Project Kappa	707 Chestnut Street	Commercial	Ongoing
2015	Project Lambda	808 Hickory Street	Residential	Completed
2015	Project Mu	909 Elmwood Street	Commercial	Ongoing
2016	Project Nu	1010 Cedarwood Street	Residential	Completed
2016	Project Xi	1111 Birchwood Street	Commercial	Ongoing
2017	Project Omicron	1212 Sprucewood Street	Residential	Completed
2017	Project Pi	1313 Firwood Street	Commercial	Ongoing

Table 3

Year	Country	Population	Proportion	Population		GDP	GDP per Capita	GDP Growth	GDP Chg.
				Urban	Rural				
1950	China	550	55%	300	250	\$100B	\$180	2.5%	\$2.5B
1960	China	771	59%	440	331	\$150B	\$195	3.0%	\$4.5B
1970	China	988	62%	582	406	\$200B	\$205	3.5%	\$7.0B
1980	China	1200	65%	680	520	\$350B	\$285	4.0%	\$14.0B
1990	China	1420	68%	770	650	\$600B	\$425	4.5%	\$27.5B
2000	China	1640	71%	850	790	\$1000B	\$625	5.0%	\$50.0B
2010	China	1860	74%	930	930	\$1500B	\$825	5.5%	\$82.5B
2020	China	2080	77%	1010	1070	\$2000B	\$950	6.0%	\$120.0B
2030	China	2300	80%	1090	1210	\$2500B	\$1075	6.5%	\$162.5B
2040	China	2520	83%	1170	1350	\$3000B	\$1175	7.0%	\$210.0B
2050	China	2740	86%	1250	1490	\$3500B	\$1275	7.5%	\$257.5B
2060	China	2960	89%	1330	1630	\$4000B	\$1375	8.0%	\$310.0B
2070	China	3180	92%	1410	1780	\$4500B	\$1475	8.5%	\$367.5B
2080	China	3400	95%	1490	1910	\$5000B	\$1575	9.0%	\$425.0B
2090	China	3620	98%	1570	2050	\$5500B	\$1675	9.5%	\$482.5B
2100	China	3840	100%	1650	2290	\$6000B	\$1775	10.0%	\$540.0B
2111	China	3951	100%	1714	2236	\$6100B	\$1814	10.5%	\$557.1B
2121	China	4062	100%	1788	2174	\$6200B	\$1857	11.0%	\$574.2B
2131	China	4173	100%	1862	2117	\$6300B	\$1897	11.5%	\$591.3B
2141	China	4284	100%	1936	2057	\$6400B	\$1937	12.0%	\$608.4B
2151	China	4395	100%	2010	2010	\$6500B	\$1975	12.5%	\$625.0B
2161	China	4506	100%	2084	2022	\$6600B	\$2014	13.0%	\$642.4B
2171	China	4617	100%	2158	2049	\$6700B	\$2057	13.5%	\$659.7B
2181	China	4728	100%	2232	2077	\$6800B	\$2097	14.0%	\$677.1B
2191	China	4839	100%	2306	2106	\$6900B	\$2137	14.5%	\$694.5B
2201	China	4950	100%	2380	2130	\$7000B	\$2175	15.0%	\$711.7B
2211	China	5061	100%	2454	2157	\$7100B	\$2214	15.5%	\$729.1B
2221	China	5172	100%	2528	2182	\$7200B	\$2257	16.0%	\$746.4B
2231	China	5283	100%	2602	2207	\$7300B	\$2297	16.5%	\$763.7B
2241	China	5394	100%	2676	2232	\$7400B	\$2337	17.0%	\$781.0B
2251	China	5505	100%	2750	2257	\$7500B	\$2375	17.5%	\$798.5B
2261	China	5616	100%	2824	2282	\$7600B	\$2414	18.0%	\$815.6B
2271	China	5727	100%	2898	2307	\$7700B	\$2453	18.5%	\$832.7B
2281	China	5838	100%	2972	2332	\$7800B	\$2492	19.0%	\$850.0B
2291	China	5949	100%	3046	2357	\$7900B	\$2531	19.5%	\$867.4B
2301	China	6060	100%	3120	2382	\$8000B	\$2570	20.0%	\$884.0B
2311	China	6171	100%	3194	2407	\$8100B	\$2609	20.5%	\$901.1B
2321	China	6282	100%	3268	2432	\$8200B	\$2647	21.0%	\$918.2B
2331	China	6393	100%	3342	2457	\$8300B	\$2686	21.5%	\$935.3B
2341	China	6504	100%	3416	2482	\$8400B	\$2724	22.0%	\$952.4B
2351	China	6615	100%	3490	2507	\$8500B	\$2763	22.5%	\$969.5B
2361	China	6726	100%	3564	2532	\$8600B	\$2802	23.0%	\$986.6B
2371	China	6837	100%	3638	2557	\$8700B	\$2841	23.5%	\$1003.7B
2381	China	6948	100%	3712	2582	\$8800B	\$2879	24.0%	\$1020.8B
2391	China	7059	100%	3786	2607	\$8900B	\$2918	24.5%	\$1037.9B
2401	China	7170	100%	3860	2632	\$9000B	\$2956	25.0%	\$1055.0B
2411	China	7281	100%	3934	2657	\$9100B	\$2994	25.5%	\$1072.1B
2421	China	7392	100%	4008	2682	\$9200B	\$3032	26.0%	\$1089.2B
2431	China	7503	100%	4082	2707	\$9300B	\$3070	26.5%	\$1106.3B
2441	China	7614	100%	4156	2732	\$9400B	\$3108	27.0%	\$1123.4B
2451	China	7725	100%	4230	2757	\$9500B	\$3146	27.5%	\$1140.5B
2461	China	7836	100%	4304	2782	\$9600B	\$3184	28.0%	\$1157.6B
2471	China	7947	100%	4378	2807	\$9700B	\$3222	28.5%	\$1174.7B
2481	China	8058	100%	4452	2832	\$9800B	\$3260	29.0%	\$1191.8B
2491	China	8169	100%	4526	2857	\$9900B	\$3298	29.5%	\$1208.9B
2501	China	8280	100%	4600	2882	\$10000B	\$3336	30.0%	\$1226.0B

三

Year	Country	Population	Proportion	Population		GDP	GDP per Capita	GDP Growth	GDP Chg.
				Urban	Rural				
1950	China	550	55%	300	250	\$100B	\$180	3.5%	\$3.5B
1960	China	771	59%	440	331	\$150B	\$195	3.8%	\$5.7B
1970	China	988	62%	582	406	\$250B	\$255	3.4%	\$8.8B
1980	China	1206	65%	650	556	\$450B	\$360	3.2%	\$13.5B
1990	China	1424	68%	717	607	\$850B	\$600	3.1%	\$26.5B
2000	China	1642	71%	774	668	\$1.3T	\$815	3.0%	\$39.5B
2010	China	1860	74%	831	729	\$2.1T	\$1150	2.9%	\$59.5B
2020	China	1978	76%	888	1100	\$3.1T	\$1580	2.8%	\$65.8B
2030	China	2096	78%	945	1151	\$4.2T	\$1950	2.7%	\$71.5B
2040	China	2214	80%	992	1222	\$5.4T	\$2320	2.6%	\$77.2B
2050	China	2332	82%	1049	1283	\$6.7T	\$2700	2.5%	\$82.9B
2060	China	2450	84%	1096	1354	\$8.1T	\$3080	2.4%	\$88.6B
2070	China	2568	86%	1143	1425	\$9.5T	\$3460	2.3%	\$94.3B
2080	China	2686	88%	1190	1516	\$11.0T	\$3840	2.2%	\$100.0B
2090	China	2804	90%	1238	1566	\$12.5T	\$4220	2.1%	\$105.7B
2100	China	2921	92%	1285	1636	\$14.0T	\$4600	2.0%	\$111.4B
2110	China	2971	93%	1332	1639	\$15.5T	\$4980	1.9%	\$117.1B
2120	China	3020	94%	1379	1641	\$17.0T	\$5360	1.8%	\$122.8B
2130	China	3068	95%	1426	1642	\$18.5T	\$5740	1.7%	\$128.5B
2140	China	3106	96%	1473	1633	\$20.0T	\$6120	1.6%	\$134.2B
2150	China	3144	97%	1520	1624	\$21.5T	\$6500	1.5%	\$139.9B
2160	China	3182	98%	1567	1615	\$23.0T	\$6880	1.4%	\$145.6B
2170	China	3220	99%	1614	1606	\$24.5T	\$7260	1.3%	\$151.3B
2180	China	3258	100%	1661	1597	\$26.0T	\$7640	1.2%	\$157.0B
2190	China	3296	100%	1708	1598	\$27.5T	\$8020	1.1%	\$162.7B
2200	China	3334	100%	1755	1595	\$29.0T	\$8400	1.0%	\$168.4B
2210	China	3372	100%	1802	1593	\$30.5T	\$8780	0.9%	\$174.1B
2220	China	3410	100%	1849	1591	\$32.0T	\$9160	0.8%	\$179.8B
2230	China	3448	100%	1896	1589	\$33.5T	\$9540	0.7%	\$185.5B
2240	China	3486	100%	1943	1587	\$35.0T	\$9920	0.6%	\$191.2B
2250	China	3524	100%	1990	1585	\$36.5T	\$10300	0.5%	\$196.9B
2260	China	3562	100%	2037	1583	\$38.0T	\$10680	0.4%	\$202.6B
2270	China	3600	100%	2084	1581	\$39.5T	\$11060	0.3%	\$208.3B
2280	China	3638	100%	2131	1579	\$41.0T	\$11440	0.2%	\$214.0B
2290	China	3676	100%	2178	1577	\$42.5T	\$11820	0.1%	\$219.7B
2300	China	3714	100%	2225	1575	\$44.0T	\$12200	-0.0%	\$225.4B
2310	China	3752	100%	2272	1573	\$45.5T	\$12580	-0.1%	\$231.1B
2320	China	3790	100%	2319	1571	\$47.0T	\$12960	-0.2%	\$236.8B
2330	China	3828	100%	2366	1569	\$48.5T	\$13340	-0.3%	\$242.5B
2340	China	3866	100%	2413	1567	\$50.0T	\$13720	-0.4%	\$248.2B
2350	China	3904	100%	2460	1565	\$51.5T	\$14100	-0.5%	\$253.9B
2360	China	3942	100%	2507	1563	\$53.0T	\$14480	-0.6%	\$259.6B
2370	China	3980	100%	2554	1561	\$54.5T	\$14860	-0.7%	\$265.3B
2380	China	4018	100%	2601	1559	\$56.0T	\$15240	-0.8%	\$271.0B
2390	China	4056	100%	2648	1557	\$57.5T	\$15620	-0.9%	\$276.7B
2400	China	4094	100%	2695	1555	\$59.0T	\$16000	-1.0%	\$282.4B
2410	China	4132	100%	2742	1553	\$60.5T	\$16380	-1.1%	\$288.1B
2420	China	4170	100%	2789	1551	\$62.0T	\$16760	-1.2%	\$293.8B
2430	China	4208	100%	2836	1549	\$63.5T	\$17140	-1.3%	\$300.5B
2440	China	4246	100%	2883	1547	\$65.0T	\$17520	-1.4%	\$306.2B
2450	China	4284	100%	2930	1545	\$66.5T	\$17900	-1.5%	\$311.9B
2460	China	4322	100%	2977	1543	\$68.0T	\$18280	-1.6%	\$317.6B
2470	China	4360	100%	3024	1541	\$69.5T	\$18660	-1.7%	\$323.3B
2480	China	4398	100%	3071	1539	\$71.0T	\$19040	-1.8%	\$329.0B
2490	China	4436	100%	3118	1537	\$72.5T	\$19420	-1.9%	\$334.7B
2500	China	4474	100%	3165	1535	\$74.0T	\$19800	-2.0%	\$340.4B
2510	China	4512	100%	3212	1533	\$75.5T	\$20180	-2.1%	\$346.1B
2520	China	4550	100%	3259	1531	\$77.0T	\$20560	-2.2%	\$351.8B
2530	China	4588	100%	3306	1529	\$78.5T	\$20940	-2.3%	\$357.5B
2540	China	4626	100%	3353	1527	\$80.0T	\$21320	-2.4%	\$363.2B
2550	China	4664	100%	3390	1525	\$81.5T	\$21700	-2.5%	\$368.9B
2560	China	4702	100%	3437	1523	\$83.0T	\$22080	-2.6%	\$374.6B
2570	China	4740	100%	3484	1521	\$84.5T	\$22460	-2.7%	\$380.3B
2580	China	4778	100%	3531	1519	\$86.0T	\$22840	-2.8%	\$386.0B
2590	China	4816	100%	3578	1517	\$87.5T	\$23220	-2.9%	\$391.7B
2600	China	4854	100%	3625	1515	\$89.0T	\$23600	-3.0%	\$397.4B
2610	China	4892	100%	3672	1513	\$90.5T	\$23980	-3.1%	\$403.1B
2620	China	4930	100%	3719	1511	\$92.0T	\$24360	-3.2%	\$408.8B
2630	China	4968	100%	3766	1509	\$93.5T	\$24740	-3.3%	\$414.5B
2640	China	5006	100%	3813	1507	\$95.0T	\$25120	-3.4%	\$420.2B
2650	China	5044	100%	3860	1505	\$96.5T	\$25500	-3.5%	\$425.9B
2660	China	5082	100%	3907	1503	\$98.0T	\$25880	-3.6%	\$431.6B
2670	China	5120	100%	3954	1501	\$99.5T	\$26260	-3.7%	\$437.3B
2680	China	5158	100%	4001	1499	\$101.0T	\$26640	-3.8%	\$443.0B
2690	China	5196	100%	4048	1497	\$102.5T	\$27020	-3.9%	\$448.7B
2700	China	5234	100%	4095	1495	\$104.0T	\$27400	-4.0%	\$454.4B
2710	China	5272	100%	4142	1493	\$105.5T	\$27780	-4.1%	\$460.1B
2720	China	5310	100%	4189	1491	\$107.0T	\$28160	-4.2%	\$465.8B
2730	China	5348	100%	4236	1489	\$108.5T	\$28540	-4.3%	\$471.5B
2740	China	5386	100%	4283	1487	\$110.0T	\$28920	-4.4%	\$477.2B
2750	China	5424	100%	4330	1485	\$111.5T	\$29300	-4.5%	\$482.9B
2760	China	5462	100%	4377	1483	\$113.0T	\$29680	-4.6%	\$488.6B
2770	China	5500	100%	4424	1481	\$114.5T	\$30060	-4.7%	\$494.3B
2780	China	5538	100%	4471	1479	\$116.0T	\$30440	-4.8%	\$500.0B
2790	China	5576	100%	4518	1477	\$117.5T	\$30820	-4.9%	\$505.7B
2800	China	5614	100%	4565	1475	\$119.0T	\$31200	-5.0%	\$511.4B
2810	China	5652	100%	4612	1473	\$120.5T	\$31580	-5.1%	\$517.1B
2820	China	5690	100%	4659	1471	\$122.0T	\$31960	-5.2%	\$522.8B
2830	China	5728	100%	4706	1469	\$123.5T	\$32340	-5.3%	\$528.5B
2840	China	5766	100%	4753	1467	\$125.0T	\$32720	-5.4%	\$534.2B
2850	China	5804	100%	4790	1465	\$126.5T	\$33100	-5.5%	\$539.9B
2860	China	5842	100%	4837	1463	\$128.0T	\$33480	-5.6%	\$545.6B
2870	China	5880	100%	4884	1461	\$129.5T	\$33860	-5.7%	\$551.3B
2880	China	5918	100%	4931	1459	\$131.0T	\$34240	-5.8%	\$557.0B
2890	China	5956	100%	4978	1457	\$132.5T	\$34620	-5.9%	\$562.7B
2900	China	5994	100%	5025	1455	\$134.0T	\$35000	-6.0%	\$568.4B
2910	China	6032	100%	5072	1453	\$135.5T	\$35380	-6.1%	\$574.1B
2920	China	6070	100%	5119	1451	\$137.0T	\$35760	-6.2%	\$579.8B
2930	China	6108	100%	5166	1449	\$138.5T	\$36140	-6.3%	\$585.5B
2940	China	6146	100%	5213	1447	\$140.0T	\$36520	-6.4%	\$591.2B
2950	China	6184	100%	5260	1445	\$141.5T	\$36900	-6.5%	\$596.9B
2960	China	6222	100%	5307	1443	\$143.0T	\$37280	-6.6%	\$602.6B
2970	China	6260	100%	5354	1441	\$144.5T	\$37660	-6.7%	\$608.3B
2980	China	6298	100%	5401	1439	\$146.0T	\$38040	-6.8%	\$614.0B
2990	China	6336	100%	5448	1437	\$147.5T	\$38420	-6.9%	\$619.7B
3000	China	6374	100%	5495	1435	\$149.0T	\$38800	-7.0%	\$625.4B
3010	China	6412	100%	5542	1433	\$150.5T	\$39180	-7.1%	\$631.1B
3020	China	6450	100%	5589	1431	\$152.0T	\$39560	-7.2%	\$636.8B
3030	China	6488	100%	5636	1429	\$153.5T	\$39940	-7.3%	\$642.5B
3040	China	6526	100%	5683	1427	\$155.0T	\$40320	-7.4%	\$648.2B
3050	China	6564	100%	5730	1425	\$156.5T	\$40700	-7.5%	\$653.9B
3060	China	6602	100%	5777	1423	\$158.0T	\$41080	-7.6%	\$659.6B
3070	China	6640	100%	5824	1421	\$159.5T	\$41460	-7.7%	\$665.3B
3080	China	6678	100%	5871	1419	\$161.0T	\$41840	-7.8%	\$671.0B
3090	China	6716	100%	5918	1417	\$162.5T	\$42220	-7.9%	\$676.7B
3100	China	6754	100%	5965	1415	\$164.0T	\$42600	-8.0%	\$682.4B
3110	China	6792	100%	6012	1413	\$165.5T	\$42980	-8.1%	\$688.1B
3120	China	6830	100%	6059	1411	\$167.0T	\$43360	-8.2%	\$693.8B
3130	China	6868	100%	6106	1409	\$168.5T	\$43740	-8.3%	\$699.5B
3140	China	6906	100%	6153	1407	\$170.0T	\$44120	-8.4%	\$705.2B
3150	China	6944	100%	6190	1405	\$171.5T	\$44500	-8.5%	\$710.9B
3160	China	6982	100%	6237	1403	\$173.0T	\$44880	-8.6%	\$716.6B
3170	China	7020	100%	6284	1401	\$174.5T	\$45260	-8.7%	\$722.3B
3180	China	7058	100%	6331	1399	\$176.0T	\$45640	-8.8%	\$728.0B
3190	China	7096	100%	6378	1397	\$177.5T	\$46020	-8.9%	\$733.7B
3200	China	7134	100%	6425	1395	\$179.0T	\$46400	-9.0%	\$739.4B
3210	China	7172	100%	6472	1393	\$180.5T	\$46780	-9.1%	\$745.1B
3220	China	7210	100%	651					

Table 2

Table 4

Age	Year	Period	Annualized		Ratio: Returns to		New Construction
			Actual	Crude	Total Construction	Abs. Change	
1988	1988	Q1	\$25	\$25	10.87%	\$1.00	\$13
1988	1988	Q2	\$25	\$25	10.87%	\$1.00	\$13
2000	2000	Q1	\$27	\$27	10.87%	\$1.00	\$13
2001	2001	Q1	\$27	\$27	10.87%	\$1.00	\$13
2002	2002	Q1	\$29	\$29	10.87%	\$1.00	\$13
2003	2003	Q1	\$29	\$29	10.87%	\$1.00	\$13
2005	2005	Q1	\$29	\$29	10.87%	\$1.00	\$13
2006	2006	Q1	\$29	\$29	10.87%	\$1.00	\$13
2007	2007	Q1	\$29	\$29	10.87%	\$1.00	\$13
2008	2008	Q1	\$29	\$29	10.87%	\$1.00	\$13
2009	2009	Q1	\$29	\$29	10.87%	\$1.00	\$13
2010	2010	Q1	\$29	\$29	10.87%	\$1.00	\$13
2011	2011	Q1	\$29	\$29	10.87%	\$1.00	\$13
2012	2012	Q1	\$29	\$29	10.87%	\$1.00	\$13
2013	2013	Q1	\$29	\$29	10.87%	\$1.00	\$13
2014	2014	Q1	\$29	\$29	10.87%	\$1.00	\$13
2015	2015	Q1	\$29	\$29	10.87%	\$1.00	\$13
2016	2016	Q1	\$29	\$29	10.87%	\$1.00	\$13
2017	2017	Q1	\$29	\$29	10.87%	\$1.00	\$13

Table 5

Year	Period	Number	Geographic Area	Type	Production		Vessel Capacity	Vessel Size, Gross	Vessel Type	Class Priority
					Units	Tons				
1988	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
1988	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2000	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2000	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2002	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2002	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2003	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2003	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2004	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2004	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2005	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2005	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2006	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2006	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2007	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2007	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2008	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2008	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2009	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2009	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2010	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2010	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2011	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2011	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2012	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2012	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2013	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2013	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2014	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2014	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2015	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2015	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2016	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2016	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2017	Q1	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64
2017	Q2	22	22	22	4,224	1,045.22	1,333	8,64	8,64	8,64

Rate Impact Measure Test Data

Rate Impact Measure Test Data

Range

	Consumed Conserved Displaced Gas Therms	Gas Customer Charge	Meter & Service Line Removal	Total Columns 2 thru 4	Carrying Chg. On Main, Svc. & Meter	New Customer Admin. & Main O&M	Gas Supply Cost	Other Cost	Program & Allowance Cost	Total Columns 6 thru 10
1	2	3	4	5	6	7	8	9	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		\$20
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
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Table 1

Year	Program	Home State	Prel. Rating	Total Rating		Total Score
				Initial	Final	
1988	32	Mo. 20178	83.30257	83.30257	83.30257	83
1989	32	Mo. 44472	80.48748	80.48748	80.48748	83
2000	22	Mo. 47172	89.47172	89.47172	89.47172	83
2001	22	Mo. 47175	89.47175	89.47175	89.47175	83
2001	22	Mo. 47253	89.47253	89.47253	89.47253	83
2002	22	Mo. 47253	89.47253	89.47253	89.47253	83
2003	22	Mo. 47253	89.47253	89.47253	89.47253	83
2004	22	Mo. 53045	89.53045	89.53045	89.53045	83
2005	22	Mo. 53045	89.53045	89.53045	89.53045	83
2006	22	Mo. 53079	89.53079	89.53079	89.53079	83
2007	22	Mo. 53079	89.53079	89.53079	89.53079	83
2008	22	Mo. 53079	89.53079	89.53079	89.53079	83
2009	22	Mo. 53079	89.53079	89.53079	89.53079	83
2010	22	Mo. 53079	89.53079	89.53079	89.53079	83
2011	22	Mo. 53079	89.53079	89.53079	89.53079	83
2012	22	Mo. 53079	89.53079	89.53079	89.53079	83
2013	22	Mo. 53079	89.53079	89.53079	89.53079	83
2014	22	Mo. 53079	89.53079	89.53079	89.53079	83
2015	22	Mo. 53079	89.53079	89.53079	89.53079	83
2016	22	Mo. 53079	89.53079	89.53079	89.53079	83
2017	22	Mo. 53079	89.53079	89.53079	89.53079	83

Table 3

Table 2

Year	Classification	Value of Production			Value * Average Cost per Unit	
		Green Chips	Blue Chips	Total	Green Chips	Blue Chips
1950	1950	\$100	\$100	\$200	\$1.00	\$1.00
1951	1951	\$110	\$110	\$220	\$1.05	\$1.05
1952	1952	\$120	\$120	\$240	\$1.10	\$1.10
1953	1953	\$130	\$130	\$260	\$1.15	\$1.15
1954	1954	\$140	\$140	\$280	\$1.20	\$1.20
1955	1955	\$150	\$150	\$300	\$1.25	\$1.25
1956	1956	\$160	\$160	\$320	\$1.30	\$1.30
1957	1957	\$170	\$170	\$340	\$1.35	\$1.35
1958	1958	\$180	\$180	\$360	\$1.40	\$1.40
1959	1959	\$190	\$190	\$380	\$1.45	\$1.45
1960	1960	\$200	\$200	\$400	\$1.50	\$1.50
1961	1961	\$210	\$210	\$420	\$1.55	\$1.55
1962	1962	\$220	\$220	\$440	\$1.60	\$1.60
1963	1963	\$230	\$230	\$460	\$1.65	\$1.65
1964	1964	\$240	\$240	\$480	\$1.70	\$1.70
1965	1965	\$250	\$250	\$500	\$1.75	\$1.75
1966	1966	\$260	\$260	\$520	\$1.80	\$1.80
1967	1967	\$270	\$270	\$540	\$1.85	\$1.85
1968	1968	\$280	\$280	\$560	\$1.90	\$1.90
1969	1969	\$290	\$290	\$580	\$1.95	\$1.95
1970	1970	\$300	\$300	\$600	\$2.00	\$2.00
1971	1971	\$310	\$310	\$620	\$2.05	\$2.05
1972	1972	\$320	\$320	\$640	\$2.10	\$2.10
1973	1973	\$330	\$330	\$660	\$2.15	\$2.15
1974	1974	\$340	\$340	\$680	\$2.20	\$2.20
1975	1975	\$350	\$350	\$700	\$2.25	\$2.25
1976	1976	\$360	\$360	\$720	\$2.30	\$2.30
1977	1977	\$370	\$370	\$740	\$2.35	\$2.35
1978	1978	\$380	\$380	\$760	\$2.40	\$2.40
1979	1979	\$390	\$390	\$780	\$2.45	\$2.45
1980	1980	\$400	\$400	\$800	\$2.50	\$2.50
1981	1981	\$410	\$410	\$820	\$2.55	\$2.55
1982	1982	\$420	\$420	\$840	\$2.60	\$2.60
1983	1983	\$430	\$430	\$860	\$2.65	\$2.65
1984	1984	\$440	\$440	\$880	\$2.70	\$2.70
1985	1985	\$450	\$450	\$900	\$2.75	\$2.75
1986	1986	\$460	\$460	\$920	\$2.80	\$2.80
1987	1987	\$470	\$470	\$940	\$2.85	\$2.85
1988	1988	\$480	\$480	\$960	\$2.90	\$2.90
1989	1989	\$490	\$490	\$980	\$2.95	\$2.95
1990	1990	\$500	\$500	\$1,000	\$3.00	\$3.00
1991	1991	\$510	\$510	\$1,020	\$3.05	\$3.05
1992	1992	\$520	\$520	\$1,040	\$3.10	\$3.10
1993	1993	\$530	\$530	\$1,060	\$3.15	\$3.15
1994	1994	\$540	\$540	\$1,080	\$3.20	\$3.20
1995	1995	\$550	\$550	\$1,100	\$3.25	\$3.25
1996	1996	\$560	\$560	\$1,120	\$3.30	\$3.30
1997	1997	\$570	\$570	\$1,140	\$3.35	\$3.35
1998	1998	\$580	\$580	\$1,160	\$3.40	\$3.40
1999	1999	\$590	\$590	\$1,180	\$3.45	\$3.45
2000	2000	\$600	\$600	\$1,200	\$3.50	\$3.50
2001	2001	\$610	\$610	\$1,220	\$3.55	\$3.55
2002	2002	\$620	\$620	\$1,240	\$3.60	\$3.60
2003	2003	\$630	\$630	\$1,260	\$3.65	\$3.65
2004	2004	\$640	\$640	\$1,280	\$3.70	\$3.70
2005	2005	\$650	\$650	\$1,300	\$3.75	\$3.75
2006	2006	\$660	\$660	\$1,320	\$3.80	\$3.80
2007	2007	\$670	\$670	\$1,340	\$3.85	\$3.85
2008	2008	\$680	\$680	\$1,360	\$3.90	\$3.90
2009	2009	\$690	\$690	\$1,380	\$3.95	\$3.95
2010	2010	\$700	\$700	\$1,400	\$4.00	\$4.00
2011	2011	\$710	\$710	\$1,420	\$4.05	\$4.05
2012	2012	\$720	\$720	\$1,440	\$4.10	\$4.10
2013	2013	\$730	\$730	\$1,460	\$4.15	\$4.15
2014	2014	\$740	\$740	\$1,480	\$4.20	\$4.20
2015	2015	\$750	\$750	\$1,500	\$4.25	\$4.25
2016	2016	\$760	\$760	\$1,520	\$4.30	\$4.30
2017	2017	\$770	\$770	\$1,540	\$4.35	\$4.35
2018	2018	\$780	\$780	\$1,560	\$4.40	\$4.40
2019	2019	\$790	\$790	\$1,580	\$4.45	\$4.45
2020	2020	\$800	\$800	\$1,600	\$4.50	\$4.50
2021	2021	\$810	\$810	\$1,620	\$4.55	\$4.55
2022	2022	\$820	\$820	\$1,640	\$4.60	\$4.60
2023	2023	\$830	\$830	\$1,660	\$4.65	\$4.65
2024	2024	\$840	\$840	\$1,680	\$4.70	\$4.70
2025	2025	\$850	\$850	\$1,700	\$4.75	\$4.75
2026	2026	\$860	\$860	\$1,720	\$4.80	\$4.80
2027	2027	\$870	\$870	\$1,740	\$4.85	\$4.85
2028	2028	\$880	\$880	\$1,760	\$4.90	\$4.90
2029	2029	\$890	\$890	\$1,780	\$4.95	\$4.95
2030	2030	\$900	\$900	\$1,800	\$5.00	\$5.00

Table 4

Table 5

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	Residual Optimal Gas Fuel Type	Electric Rate Number Electric Residual Winter Header
Gas Supplier	Master Header	48 Gallons	Electric	59 Gallons
Residence	200			
Gas Utility:	Commonwealth Utilities Corporation			
i. Installed Cost Data				
1. Equipment	\$ 227			\$ 223
2. Installation	462			190
Total Cust. Cost	704			413
3. Utility Rebate	330			0
4. Other Rebates				
ii. Operating Data				
1. Energy Factor				
2. Annual KWH				
3. Annual Oil Gallons				
4. Annual Gas Therms				
iii. Energy Conserved Data				
1. Energy Factor				
2. Annual KWH				
3. Annual Oil Gallons				
4. Annual Gas Therms				
iv. Diversified KW				
1. Diversified KW				
2. Billing KW				
v. O&M (including energy)				
1. O&M				
2. Monthly Utility Incentive				
3. Average Life in Yrs				
4. Existing Remaining Life in Yrs				
vi. Gas Rates				
5. Base, Winter	0.43126			0
6. Base, Summer	0.43126			0
7. Seasonal, Winter				14
8. Seasonal, Summer				0
9. Seasonal, Summer				0
10. POA, Winter	0.38977			0.0728
11. POA, Summer	0.38977			0
12. Team & Fees	13.07%			0
13. Customer Chg	8.5			13.67%
14. Ratio of Therms Consumed to Total	50.72%			8.85
15. Average Life	12			
vii. Common Gas & Electric Data				
1. Discount Rate	8.65%			
2. Standard Rate				
3. Total				
viii. Therma Disposition				
1. Energy Factor				
2. Standard Rate				
3. Total				
ix. Therma Disposition				
1. Energy Factor				
2. Standard Rate				
3. Total				

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost	No. 2 Fuel Oil	Consumed			Gas O&M	Gas Customer Charge	Gas Rebate	Alternate Appliance O&M	Benefits 2+3-4+5 -6-7+8-9	Total Appliance Installed Cost	Alternate Appliance Installed Cost	Gas Appliance Installed Cost	Total Cost 12-11
			-Conserved -Displaced Gas Therms	Table 1	Table 2									
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
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TABLE 1
New
Growth
Rate
From
2000
Cens.

Year	State	Annually	100% Annual	100% Growth
1990	State	1.00%	1.00%	1.00%
1990	U.S.	0.5779%	0.5779%	0.5779%
1990	U.S.	0.5779%	0.5779%	0.5779%
2000	U.S.	0.5779%	0.5779%	0.5779%
2000	U.S.	0.5779%	0.5779%	0.5779%
2001	U.S.	0.5779%	0.5779%	0.5779%
2002	U.S.	0.5779%	0.5779%	0.5779%
2003	U.S.	0.5779%	0.5779%	0.5779%
2004	U.S.	0.5779%	0.5779%	0.5779%
2005	U.S.	0.5779%	0.5779%	0.5779%
2006	U.S.	0.5779%	0.5779%	0.5779%
2007	U.S.	0.5779%	0.5779%	0.5779%
2008	U.S.	0.5779%	0.5779%	0.5779%
2009	U.S.	0.5779%	0.5779%	0.5779%
2010	U.S.	0.5779%	0.5779%	0.5779%
2011	U.S.	0.5779%	0.5779%	0.5779%
2012	U.S.	0.5779%	0.5779%	0.5779%
2013	U.S.	0.5779%	0.5779%	0.5779%
2014	U.S.	0.5779%	0.5779%	0.5779%
2015	U.S.	0.5779%	0.5779%	0.5779%
2016	U.S.	0.5779%	0.5779%	0.5779%
2017	U.S.	0.5779%	0.5779%	0.5779%

TABLE 2
Growth/Decrease/Growth/Decrease
From
2000
Cens.

Year	State	Annually	100% Annual	100% Growth
1990	U.S.	1.00%	1.00%	1.00%
1990	U.S.	0.4657%	0.4657%	0.4657%
1990	U.S.	0.4657%	0.4657%	0.4657%
2000	U.S.	0.4657%	0.4657%	0.4657%
2001	U.S.	0.4657%	0.4657%	0.4657%
2002	U.S.	0.4657%	0.4657%	0.4657%
2003	U.S.	0.4657%	0.4657%	0.4657%
2004	U.S.	0.4657%	0.4657%	0.4657%
2005	U.S.	0.4657%	0.4657%	0.4657%
2006	U.S.	0.4657%	0.4657%	0.4657%
2007	U.S.	0.4657%	0.4657%	0.4657%
2008	U.S.	0.4657%	0.4657%	0.4657%
2009	U.S.	0.4657%	0.4657%	0.4657%
2010	U.S.	0.4657%	0.4657%	0.4657%
2011	U.S.	0.4657%	0.4657%	0.4657%
2012	U.S.	0.4657%	0.4657%	0.4657%
2013	U.S.	0.4657%	0.4657%	0.4657%
2014	U.S.	0.4657%	0.4657%	0.4657%
2015	U.S.	0.4657%	0.4657%	0.4657%
2016	U.S.	0.4657%	0.4657%	0.4657%
2017	U.S.	0.4657%	0.4657%	0.4657%

TABLE 3
New Customer Change

Year	State	Annually	100% Annual	100% Growth
1990	U.S.	76.00	100	100
1990	U.S.	60.34	100	100
2000	U.S.	62.70	100	100
2001	U.S.	65.23	100	100
2002	U.S.	67.70	100	100
2003	U.S.	69.43	100	100
2004	U.S.	71.24	100	100
2005	U.S.	73.14	100	100
2006	U.S.	75.07	100	100
2007	U.S.	77.07	100	100
2008	U.S.	79.17	100	100
2009	U.S.	81.37	100	100
2010	U.S.	83.67	100	100
2011	U.S.	86.07	100	100
2012	U.S.	88.57	100	100
2013	U.S.	91.17	100	100
2014	U.S.	93.87	100	100
2015	U.S.	96.67	100	100
2016	U.S.	99.57	100	100
2017	U.S.	102.47	100	100

Participants Cost Effectiveness Test Data

All Costs in	1998 dollars.	Analysis Start Year	1998	Number of Years	Electric Rate Number
Gas Program:	Residential Appliance Replacement Program				
Gas Supplier:	Partners	Gas Rate Number			
Gas Metering:	Chicago Utilities Corporation				
Allocation:	2000				
Electric Utility:	Territory Electric Co.				
V. Installed Cost Data					
1. Installed Cost Data	\$				
1. Equipment	1,400				543
2. Installation	579				618
Total Instl. Cost	2000				\$1,159
3. Utility Rebate	200				0
4. Other Rebates					
V. Energy Consumed Data					
1. Energy Factor					
2. Annual kWh					
3. Annual Oil Gallons					
4. Annual Gas Therms					
5. Divorced kW					
6. Billing kW					
7. OAM (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 kWh, Winter					0
13. Electric Rate per kWh, Summer					0
14. Electric Taxes & Fees					13.67%
15. Customer Chg	6.50				8.85
VII. Therms Displaced					
1. Energy Factor					1
Therms Displaced					
2. Standard Rate					
Total					0
I. Discount Rate					0
II. Common Gas & Electric Data					
1. Discount Rate					0.05%

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric	No. 2	Consumed	Alternate	Gas	Gas	Alternate	Total	Alternate	Gas	Total	
	KWH Cost	Fuel Oil	-Conserved					Benefits 2+3-4+5	Appliance Installed	Appliance Installed		
Table 1	Table 1	Table 2	-Displaced Gas Therms	O&M	O&M	Table 3	Gas Rebate	Alternate Rebate	Gas Rebate	Cost	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. Energy Use Cost - Residential

Year	City		Residential		Total		CPI%	
	Cost	Change	Cost	Change	Cost	Change	Cost	Change
1998	\$1,377.00		\$6,452		\$13,877.00		\$254	
1999	\$1,377.00		\$6,452		\$13,877.00		\$244	
2000	\$1,377.00		\$6,452		\$13,877.00		\$234	
2001	\$1,377.00		\$6,452		\$13,877.00		\$224	
2002	\$1,377.00		\$6,452		\$13,877.00		\$214	
2003	\$1,377.00		\$6,452		\$13,877.00		\$204	
2004	\$1,377.00		\$6,452		\$13,877.00		\$194	
2005	\$1,377.00		\$6,452		\$13,877.00		\$184	
2006	\$1,377.00		\$6,452		\$13,877.00		\$174	
2007	\$1,377.00		\$6,452		\$13,877.00		\$164	
2008	\$1,377.00		\$6,452		\$13,877.00		\$154	
2009	\$1,377.00		\$6,452		\$13,877.00		\$144	
2010	\$1,377.00		\$6,452		\$13,877.00		\$134	
2011	\$1,377.00		\$6,452		\$13,877.00		\$124	
2012	\$1,377.00		\$6,452		\$13,877.00		\$114	
2013	\$1,377.00		\$6,452		\$13,877.00		\$104	
2014	\$1,377.00		\$6,452		\$13,877.00		\$94	
2015	\$1,377.00		\$6,452		\$13,877.00		\$84	
2016	\$1,377.00		\$6,452		\$13,877.00		\$74	
2017	\$1,377.00		\$6,452		\$13,877.00		\$64	

TABLE 2. Commercial-Gross vs Consumer - Residential

Year	City		Residential		Total		CPI%	
	Cost	Change	Cost	Change	Cost	Change	Cost	Change
1998	\$1,377.00		\$77		\$13,877.00		\$166	
1999	\$1,377.00		\$77		\$13,877.00		\$176	
2000	\$1,377.00		\$77		\$13,877.00		\$186	
2001	\$1,377.00		\$77		\$13,877.00		\$196	
2002	\$1,377.00		\$77		\$13,877.00		\$206	
2003	\$1,377.00		\$77		\$13,877.00		\$216	
2004	\$1,377.00		\$77		\$13,877.00		\$226	
2005	\$1,377.00		\$77		\$13,877.00		\$236	
2006	\$1,377.00		\$77		\$13,877.00		\$246	
2007	\$1,377.00		\$77		\$13,877.00		\$256	
2008	\$1,377.00		\$77		\$13,877.00		\$266	
2009	\$1,377.00		\$77		\$13,877.00		\$276	
2010	\$1,377.00		\$77		\$13,877.00		\$286	
2011	\$1,377.00		\$77		\$13,877.00		\$296	
2012	\$1,377.00		\$77		\$13,877.00		\$306	
2013	\$1,377.00		\$77		\$13,877.00		\$316	
2014	\$1,377.00		\$77		\$13,877.00		\$326	
2015	\$1,377.00		\$77		\$13,877.00		\$336	
2016	\$1,377.00		\$77		\$13,877.00		\$346	
2017	\$1,377.00		\$77		\$13,877.00		\$356	

TABLE 3. Gas Customer Charge

Year	City		Residential		Total		CPI%	
	Cost	Change	Cost	Change	Cost	Change	Cost	Change
1998	\$1,377.00		\$76.00		\$13,877.00		\$223	
1999	\$1,377.00		\$80.34		\$13,877.00		\$233	
2000	\$1,377.00		\$82.78		\$13,877.00		\$243	
2001	\$1,377.00		\$86.23		\$13,877.00		\$253	
2002	\$1,377.00		\$87.79		\$13,877.00		\$263	
2003	\$1,377.00		\$89.43		\$13,877.00		\$273	
2004	\$1,377.00		\$91.27		\$13,877.00		\$283	
2005	\$1,377.00		\$93.20		\$13,877.00		\$293	
2006	\$1,377.00		\$95.23		\$13,877.00		\$303	
2007	\$1,377.00		\$97.37		\$13,877.00		\$313	
2008	\$1,377.00		\$99.61		\$13,877.00		\$323	
2009	\$1,377.00		\$101.97		\$13,877.00		\$333	
2010	\$1,377.00		\$104.43		\$13,877.00		\$343	
2011	\$1,377.00		\$107.07		\$13,877.00		\$353	
2012	\$1,377.00		\$110.82		\$13,877.00		\$363	
2013	\$1,377.00		\$115.21		\$13,877.00		\$373	
2014	\$1,377.00		\$119.80		\$13,877.00		\$383	
2015	\$1,377.00		\$124.48		\$13,877.00		\$393	
2016	\$1,377.00		\$129.23		\$13,877.00		\$403	
2017	\$1,377.00		\$134.08		\$13,877.00		\$413	

Participants Cost Effectiveness Test Data

All Costs In	1998 dollars.	Analysis Start Year	1998	Number of Years	20
Gas Program:	Residential Appliance Replacement				
Gas Supplier:	Duke	Gas Rate Number			
Address:	59	Automobile Options:	Dodge	Electric Rate Number	
Gas Utility:	Chesapeake Utilities Corporation	Gas/Pet Type:	Electric		
I. Installed Cost Data		Electric Utility:	Tampa Electric Co.		
	\$			\$	
1. Equipment	400	1. Equipment	250		
2. Installation	180	2. Installation	107		
Total Cust. Cost	580	Total Cust. Cost	3457		
3. Utility Rebate	50	3. Utility Allowance	0		
4. Other Rebates		4. Other Allowance			
II. Operating Data		V. Energy Consumed Data			
1. Energy Factor		1. Energy Factor	1	Existing	1
Therms Consumed Winter	23	2. Annual KWH	965	965	
2. Standard Rate	23	3. Annual Oil Gallons	0	0	
3. Seasonal Rate	0	4. Annual Gas Therms	0	0	
Total	23	5. Diversified KW			
4. Electric Consumption in kWh		6. Billing KW			
5. OAM (including energy)	10	7. OAM (excluding energy)	14		
Gas Rates		8. Monthly Utility Incentive	0		
6. Billing, Winter	0.43126	9. Average Life in Yrs	13		
7. Billing, Summer	0.43126	10. Existing Remaining Life in Yrs	0		
8. Seasonal, Winter		11. Electric Rate per kWh	0.0778		
9. Seasonal, Summer		12. Electric Rate per kWh, Winter	0		
10. PQA, Winter	0.38977	13. Electric Rate per kWh, Summer	0		
11. PQA, Summer	0.38977	14. Electric Taxes & Fees	13.67%		
12. Taxes & Fees	13.47%	15. Customer Chg	8.85		
13. Customer Chg	8.50				
14. Ratio of Therms Consumed to Total	10.47%				
15. Average Life	13				
III. Common Gas & Electric Data					
1. Discount Rate	8.65%				

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
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	41	0	0	0
2005	100	0	53	17	12	12	0	0	42	0	0	0
2006	103	0	54	18	13	12	0	0	43	0	0	0
2007	106	0	56	18	13	13	0	0	44	0	0	0
2008	110	0	58	19	13	13	0	0	46	0	0	0
2009	113	0	59	19	14	13	0	0	47	0	0	0
2010	116	0	61	20	14	14	0	0	48	0	0	0
2011	120	0	63	21	15	14	0	0	50	529	605	76
2012	123	0	65	21	15	15	0	0	51	0	0	0
2013	127	0	67	22	16	15	0	0	53	0	0	0
2014	131	0	69	22	16	15	0	0	54	0	0	0
2015	135	0	71	23	17	16	0	0	56	0	0	0
2016	139	0	73	24	17	16	0	0	58	0	0	0
2017	143	0	75	25	18	17	0	0				

Present Value
of Benefits

\$429

Present Value
of Costs

\$135

Benefit/Cost
Ratio

3.17

TABLE I

TABLES

TABLE 2

Year	Headline Code, Qing	Year-to-Year Amount, Cents, China	Total		Total, Millions		Growth		Outstanding Debt		Debt Change	
			Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal
1888	6.50	70.50	44	423	16.87%	8.84						
1889	6.70	65.34	45	423	16.87%	8.85						
1890	6.80	62.79	45	423	16.87%	10.20						
1891	7.10	66.23	46	423	16.87%	10.44						
1892	7.32	67.79	47	423	16.87%	10.58						
1893	7.44	69.42	48	423	16.87%	11.16						
1894	7.76	63.14	48	423	16.87%	11.31						
1895	7.88	66.85	48	423	16.87%	11.46						
1896	8.23	64.31	49	423	16.87%	11.21						
1897	8.44	101.77	49	423	16.87%	12.58						
1898	8.74	104.43	49	423	16.87%	12.99						
1899	9.00	107.97	49	423	16.87%	13.26						
1900	9.27	111.21	49	423	16.87%	13.71						
1901	9.56	114.46	49	423	16.87%	14.17						
1902	9.82	117.06	49	423	16.87%	14.54						
1903	10.13	121.62	49	423	16.87%	15.02						
1904	10.43	126.17	49	423	16.87%	15.47						
1905	10.74	128.82	49	423	16.87%	15.84						
1906	11.02	132.87	49	423	16.87%	16.31						
1907	11.29	136.27	49	423	16.87%	16.78						
1908	11.54	139.94	49	423	16.87%	17.25						
1909	11.78	143.81	49	423	16.87%	17.72						
1910	12.02	147.88	49	423	16.87%	18.19						
1911	12.24	151.14	49	423	16.87%	18.67						

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	Range			Total Cost 12-11
			3	4	5						10	11	12	
1	2	3	30	12	8	7	50	0	74	607	762	155	0	155
1998	57	0	31	12	8	7	0	0	25	0	0	0	0	0
1999	59	0	32	13	8	7	0	0	26	0	0	0	0	0
2000	60	0	33	13	9	7	0	0	27	0	0	0	0	0
2001	62	0	34	14	9	8	0	0	27	0	0	0	0	0
2002	64	0	35	14	9	8	0	0	28	0	0	0	0	0
2003	66	0	36	14	10	8	0	0	29	0	0	0	0	0
2004	68	0	37	15	10	8	0	0	30	0	0	0	0	0
2005	70	0	38	15	10	8	0	0	31	0	0	0	0	0
2006	72	0	39	16	10	9	0	0	32	0	0	0	0	0
2007	74	0	40	16	11	9	0	0	33	0	0	0	0	0
2008	76	0	41	17	11	9	0	0	34	0	0	0	0	0
2009	79	0	43	17	11	10	0	0	35	0	0	0	0	0
2010	81	0	44	18	12	10	0	0	36	0	0	0	0	0
2011	83	0	45	18	12	10	0	0	37	0	0	0	0	0
2012	86	0	47	19	12	10	0	0	38	0	0	0	0	0
2013	89	0	48	19	13	11	0	0	39	0	0	0	0	0
2014	91	0	49	20	13	11	0	0	40	0	0	0	0	0
2015	94	0	51	20	14	11	0	0	41	0	0	0	0	0
2016	97	0	52	21	14	12	0	0	43	0	0	0	0	0
2017	100	0												

Present Value
of Benefits

\$328

Present Value
of Costs

\$143

Benefit/Cost
Ratio

2.30

TABLE I
Some Non-Catalytic Properties

TABLE 2. Generalized Growth Curves: Trends

Year	Name	Average		Total		Cost
		Cost	Revenue	Profit	Loss	
1998	0.421027	22	13.87%	28.88		
1999	0.420000	22	13.87%	26.79		
2000	0.421027	22	13.87%	21.58		
2001	0.387719	22	13.87%	22.83		
2002	0.387077	22	13.87%	22.83		
2003	0.387177	22	13.87%	24.62		
2004	0.386549	22	13.87%	26.88		
2005	0.386022	22	13.87%	26.73		
2006	1.260352	22	13.87%	27.82		
2007	1.267124	22	13.87%	26.87		
2008	1.268463	22	13.87%	25.24		
2009	1.268044	22	13.87%	22.36		
2010	1.266756	22	13.87%	23.86		
2011	1.266577	22	13.87%	23.17		
2012	1.267913	22	13.87%	24.53		
2013	1.267107	22	13.87%	27.82		
2014	1.268074	22	13.87%	26.84		
2015	1.268743	22	13.87%	22.34		
2016	1.268777	22	13.87%	23.37		

TABLE 3 One-Outcome Design

Year	Identify Cust. Chg.	Actual Chg.	Budgeted Chg.	Total Revenue		Gross Margin	Contribution Margin	Opex	Net Profit
				Units	Revenue				
2010	8.50	78.00	32	423	7,572	8.17	8.47	7.17	8.17
2010	8.70	80.34	32	423	7,677	8.17	8.47	7.17	8.47
2010	8.80	82.76	32	423	7,782	8.17	8.47	7.17	8.47
2011	9.10	86.23	32	423	8,157	7.83	7.53	7.53	7.83
2011	9.20	87.79	32	423	8,262	7.83	7.53	7.53	7.53
2011	9.40	90.42	32	423	8,467	7.83	7.53	7.78	7.83
2011	9.50	92.14	32	423	8,572	7.83	7.53	8.01	8.01
2012	9.70	93.89	32	423	8,777	8.25	8.25	8.25	8.25
2012	9.80	95.63	32	423	8,882	8.25	8.25	8.25	8.25
2012	9.90	98.41	32	423	9,087	8.25	8.25	8.25	8.25
2013	10.10	101.77	32	423	9,292	8.57	8.57	8.57	8.57
2013	10.20	104.49	32	423	9,497	8.57	8.57	8.57	8.57
2013	10.30	107.89	32	423	9,702	8.57	8.57	8.26	8.57
2014	10.50	111.21	32	423	10,907	8.57	8.57	8.57	8.57
2014	10.60	114.66	32	423	11,112	8.57	8.57	8.57	8.57
2014	10.70	117.89	32	423	11,317	8.57	8.57	8.57	8.57
2015	11.00	121.62	32	423	12,522	8.89	8.89	8.89	8.89
2015	11.10	125.17	32	423	12,727	8.89	8.89	8.89	8.89
2015	11.20	128.63	32	423	12,932	8.89	8.89	8.89	8.89
2016	11.50	132.79	32	423	13,137	9.21	9.21	9.21	9.21
2016	11.60	136.77	32	423	13,342	9.21	9.21	9.21	9.21
2017	11.80	137.17	32	423	13,547	9.21	9.21	9.21	9.21

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	Electric Rate Number
Gas Program:	Residential Propane	Gas Rate Number	
	Distribution Program		
Gas Service:	Winter Heater	400000000	Electric Rate Number
Address:	52719		
Gas Utility:	Chesterfield Utilities Corporation		
1. Avoided Meter Removal Cost	\$0		
2. Avoided Out & Cap Cost	0		
Total Costs	\$0		
I. 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	\$0.43125		
7. Base, Summer	\$0.43125		
8. Seasonal, Winter			
9. Seasonal, Summer			
10. PCA, Winter	0.36977		
11. PCA, Summer	0.36977		
12. Customer Chg	\$0.50		
14. Ratio of Therms Consumed	39.72%		
to Total			
15. Average Life	12		
II. Common Gas & Electric Data			
1. Discount Rate	0.05%		

Rate Impact Measure Test Data

	Consumed Gas Therms	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
1	2	3	4	5	6	7	8	9	
			\$	\$	\$	\$	\$	\$	
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 \$1,963Present Value
of Costs \$1,182Benefit/Cost
Ratio 1.66

15

Table 2

Year	Country	Average		Ratio of Theories		Ratio of Models	
		Statis.	Qual.	Conventional	13.2000	Statist.	Qual.
1	U.S.A.	75.50	32.50	32.77%	32.77%	32.51	32.51
2	U.S.A.	65.24	65.24	36.77%	36.77%	65.22	65.22
3	U.S.A.	65.71	65.71	36.77%	36.77%	65.24	65.24
4	U.S.A.	65.23	65.23	36.77%	36.77%	65.23	65.23
5	U.S.A.	67.79	67.79	36.77%	36.77%	65.25	65.25
6	U.S.A.	66.42	66.42	36.77%	36.77%	65.26	65.26
7	U.S.A.	65.34	65.34	36.77%	36.77%	65.27	65.27
8	U.S.A.	66.89	66.89	36.77%	36.77%	65.28	65.28
9	U.S.A.	66.23	66.23	36.77%	36.77%	65.29	65.29
10	U.S.A.	75.77	75.77	36.77%	36.77%	65.30	65.30
11	U.S.A.	76.49	76.49	36.77%	36.77%	65.31	65.31
12	U.S.A.	76.55	76.55	36.77%	36.77%	65.32	65.32
13	U.S.A.	82.27	71.11	36.77%	36.77%	65.33	65.33
14	U.S.A.	84.88	114.65	36.77%	36.77%	65.34	65.34
15	U.S.A.	82.83	117.48	36.77%	36.77%	65.35	65.35
16	U.S.A.	76.13	121.62	36.77%	36.77%	65.36	65.36
17	U.S.A.	76.43	126.17	36.77%	36.77%	65.37	65.37
18	U.S.A.	76.24	126.62	36.77%	36.77%	65.38	65.38
19	U.S.A.	11.67	152.77	36.77%	36.77%	65.39	65.39
20	U.S.A.	11.67	152.77	36.77%	36.77%	65.40	65.40

Table 4

Year	Age	Armenian Ethnic Group	Religion	Population		G & W Total Population	G & W Total Population %	Armenian Ethnic Group Total Population	Armenian Ethnic Group Total Population %
				Count	Percent				
1917	25	114	25	139	2.6%	516	35.7%	145	11.3%
1917	26	115	26	115	2.4%	516	35.7%	111	11.1%
1917	27	116	27	100	1.9%	516	35.7%	111	11.1%
1917	28	117	28	102	1.9%	516	35.7%	123	11.1%
1917	29	118	29	98	1.8%	516	35.7%	116	11.1%
1917	30	119	30	98	1.8%	516	35.7%	116	11.1%
1917	31	120	31	98	1.8%	516	35.7%	116	11.1%
1917	32	121	32	98	1.8%	516	35.7%	116	11.1%
1917	33	122	33	98	1.8%	516	35.7%	116	11.1%
1917	34	123	34	98	1.8%	516	35.7%	116	11.1%
1917	35	124	35	98	1.8%	516	35.7%	116	11.1%
1917	36	125	36	98	1.8%	516	35.7%	116	11.1%
1917	37	126	37	98	1.8%	516	35.7%	116	11.1%
1917	38	127	38	98	1.8%	516	35.7%	116	11.1%
1917	39	128	39	98	1.8%	516	35.7%	116	11.1%
1917	40	129	40	98	1.8%	516	35.7%	116	11.1%
1917	41	130	41	98	1.8%	516	35.7%	116	11.1%
1917	42	131	42	98	1.8%	516	35.7%	116	11.1%
1917	43	132	43	98	1.8%	516	35.7%	116	11.1%
1917	44	133	44	98	1.8%	516	35.7%	116	11.1%
1917	45	134	45	98	1.8%	516	35.7%	116	11.1%
1917	46	135	46	98	1.8%	516	35.7%	116	11.1%
1917	47	136	47	98	1.8%	516	35.7%	116	11.1%
1917	48	137	48	98	1.8%	516	35.7%	116	11.1%
1917	49	138	49	98	1.8%	516	35.7%	116	11.1%
1917	50	139	50	98	1.8%	516	35.7%	116	11.1%
1917	51	140	51	98	1.8%	516	35.7%	116	11.1%
1917	52	141	52	98	1.8%	516	35.7%	116	11.1%
1917	53	142	53	98	1.8%	516	35.7%	116	11.1%
1917	54	143	54	98	1.8%	516	35.7%	116	11.1%
1917	55	144	55	98	1.8%	516	35.7%	116	11.1%
1917	56	145	56	98	1.8%	516	35.7%	116	11.1%
1917	57	146	57	98	1.8%	516	35.7%	116	11.1%
1917	58	147	58	98	1.8%	516	35.7%	116	11.1%
1917	59	148	59	98	1.8%	516	35.7%	116	11.1%
1917	60	149	60	98	1.8%	516	35.7%	116	11.1%
1917	61	150	61	98	1.8%	516	35.7%	116	11.1%
1917	62	151	62	98	1.8%	516	35.7%	116	11.1%
1917	63	152	63	98	1.8%	516	35.7%	116	11.1%
1917	64	153	64	98	1.8%	516	35.7%	116	11.1%
1917	65	154	65	98	1.8%	516	35.7%	116	11.1%
1917	66	155	66	98	1.8%	516	35.7%	116	11.1%
1917	67	156	67	98	1.8%	516	35.7%	116	11.1%
1917	68	157	68	98	1.8%	516	35.7%	116	11.1%
1917	69	158	69	98	1.8%	516	35.7%	116	11.1%
1917	70	159	70	98	1.8%	516	35.7%	116	11.1%
1917	71	160	71	98	1.8%	516	35.7%	116	11.1%
1917	72	161	72	98	1.8%	516	35.7%	116	11.1%
1917	73	162	73	98	1.8%	516	35.7%	116	11.1%
1917	74	163	74	98	1.8%	516	35.7%	116	11.1%
1917	75	164	75	98	1.8%	516	35.7%	116	11.1%
1917	76	165	76	98	1.8%	516	35.7%	116	11.1%
1917	77	166	77	98	1.8%	516	35.7%	116	11.1%
1917	78	167	78	98	1.8%	516	35.7%	116	11.1%
1917	79	168	79	98	1.8%	516	35.7%	116	11.1%
1917	80	169	80	98	1.8%	516	35.7%	116	11.1%
1917	81	170	81	98	1.8%	516	35.7%	116	11.1%
1917	82	171	82	98	1.8%	516	35.7%	116	11.1%
1917	83	172	83	98	1.8%	516	35.7%	116	11.1%
1917	84	173	84	98	1.8%	516	35.7%	116	11.1%
1917	85	174	85	98	1.8%	516	35.7%	116	11.1%
1917	86	175	86	98	1.8%	516	35.7%	116	11.1%
1917	87	176	87	98	1.8%	516	35.7%	116	11.1%
1917	88	177	88	98	1.8%	516	35.7%	116	11.1%
1917	89	178	89	98	1.8%	516	35.7%	116	11.1%
1917	90	179	90	98	1.8%	516	35.7%	116	11.1%
1917	91	180	91	98	1.8%	516	35.7%	116	11.1%
1917	92	181	92	98	1.8%	516	35.7%	116	11.1%
1917	93	182	93	98	1.8%	516	35.7%	116	11.1%
1917	94	183	94	98	1.8%	516	35.7%	116	11.1%
1917	95	184	95	98	1.8%	516	35.7%	116	11.1%
1917	96	185	96	98	1.8%	516	35.7%	116	11.1%
1917	97	186	97	98	1.8%	516	35.7%	116	11.1%
1917	98	187	98	98	1.8%	516	35.7%	116	11.1%
1917	99	188	99	98	1.8%	516	35.7%	116	11.1%
1917	100	189	100	98	1.8%	516	35.7%	116	11.1%
1917	101	190	101	98	1.8%	516	35.7%	116	11.1%
1917	102	191	102	98	1.8%	516	35.7%	116	11.1%
1917	103	192	103	98	1.8%	516	35.7%	116	11.1%
1917	104	193	104	98	1.8%	516	35.7%	116	11.1%
1917	105	194	105	98	1.8%	516	35.7%	116	11.1%
1917	106	195	106	98	1.8%	516	35.7%	116	11.1%
1917	107	196	107	98	1.8%	516	35.7%	116	11.1%
1917	108	197	108	98	1.8%	516	35.7%	116	11.1%
1917	109	198	109	98	1.8%	516	35.7%	116	11.1%
1917	110	199	110	98	1.8%	516	35.7%	116	11.1%
1917	111	200	111	98	1.8%	516	35.7%	116	11.1%
1917	112	201	112	98	1.8%	516	35.7%	116	11.1%
1917	113	202	113	98	1.8%	516	35.7%	116	11.1%
1917	114	203	114	98	1.8%	516	35.7%	116	11.1%
1917	115	204	115	98	1.8%	516	35.7%	116	11.1%
1917	116	205	116	98	1.8%	516	35.7%	116	11.1%
1917	117	206	117	98	1.8%	516	35.7%	116	11.1%
1917	118	207	118	98	1.8%	516	35.7%	116	11.1%
1917	119	208	119	98	1.8%	516	35.7%	116	11.1%
1917	120	209	120	98	1.8%	516	35.7%	116	11.1%
1917	121	210	121	98	1.8%	516	35.7%	116	11.1%
1917	122	211	122	98	1.8%	516	35.7%	116	11.1%
1917	123	212	123	98	1.8%	516	35.7%	116	11.1%
1917	124	213	124	98	1.8%	516	35.7%	116	11.1%
1917	125	214	125	98	1.8%	516	35.7%	116	11.1%
1917	126	215	126	98	1.8%	516	35.7%	116	11.1%
1917	127	216	127	98	1.8%	516	35.7%	116	11.1%
1917	128	217	128	98	1.8%	516	35.7%	116	11.1%
1917	129	218	129	98	1.8%	516	35.7%	116	11.1%
1917	130	219	130	98	1.8%	516	35.7%	116	11.1%
1917	131	220	131	98	1.8%	516	35.7%	116	11.1%
1917	132	221	132	98	1.8%	516	35.7%	116	11.1%
1917	133	222	133	98	1.8%	516	35.7%	116	11.1%
1917	134	223	134	98	1.8%	516	35.7%	116	11.1%
1917	135	224	135	98	1.8%	516	35.7%	116	11.1%
1917	136	225	136	98	1.8%	516	35.7%	116	11.1%
1917	137	226	137	98	1.8%	516	35.7%	116	11.1%
1917	138	227	138	98	1.8%	516	35.7%	116	11.1%
1917	139	228	139	98	1.8%	516	35.7%	116	11.1%
1917	140	229	140	98	1.8%	516	35.7%	116	11.1%
1917	141	230	141	98	1.8%	516	35.7%	116	11.1%
1917	142	231	142	98	1.8%	516	35.7%	116	11.1%
1917	143	232	143	98	1.8%	516	35.7%	116	11.1%
1917	144	233	144	98	1.8%	516	35.7%	116	11.1%
1917	145	234	145	98	1.8%	516	35.7%	116	11.1%
1917	146	235	146	98	1.8%	516	35.7%	116	11.1%
1917	147	236	147	98	1.8%	516	35.7%	116	11.1%
1917	148	237	148	98	1.8%	516	35.7%	116	11.1%
1917	149	238	149	98	1.8%	516	35.7%	116	11.1%
1917	150	239	150	98	1.8%	516	35.7%	116	11.1%
1917	151	240	151	98	1.8%	516	35.7%	116	11.1%
1917	152	241	152	98	1.8%	516	35.7%	116	11.1%
1917	153	242	153	98	1.8%	516	35.7%	116	11.1%
1917	154	243	154	98	1.8%	516	35.7%	116	11.1%
1917	155	244	155	98	1.8%	516	35.7%	116	11.1%
1917	156	245	156	98	1.8%	516	35.7%	116	11.1%
1917	157	246	157	98	1.8%	516	35.7%	116	11.1%
1917	158	247	158	98	1.8%	516	35.7%	116	11.1%
1917	159	248	159	98	1.8%	516	35.7%	116	11.1%
1917	160	249	160	98	1.8%	516	35.7%	116	11.1%
1917	161	250	161	98	1.8%	516	35.7%	116	11.1%
1917	162	251	162	98	1.8%	516	35.7%	116	11.1%

Table 3

Year	Industry	Constituents	Population		Number of Households		Average Household Size		Gross Domestic Product		Per Capita Income		GDP Growth Rate		GDP Deflator		GDP at Current Prices	
			Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Total	Urban	Total	Urban	Total	
2000	Agriculture	1000	300	200	500	100	100	200	1500	1000	2500	1000	1000	1000	1000	1000	1000	
2001	Agriculture	1100	310	210	520	102	102	204	1520	1020	2540	1020	1020	1020	1020	1020	1020	
2002	Agriculture	1200	320	220	540	104	104	208	1540	1040	2580	1040	1040	1040	1040	1040	1040	
2003	Agriculture	1300	330	230	560	106	106	212	1560	1060	2620	1060	1060	1060	1060	1060	1060	
2004	Agriculture	1400	340	240	580	108	108	216	1580	1080	2660	1080	1080	1080	1080	1080	1080	
2005	Agriculture	1500	350	250	600	110	110	220	1600	1100	2700	1100	1100	1100	1100	1100	1100	
2006	Agriculture	1600	360	260	620	112	112	224	1620	1120	2740	1120	1120	1120	1120	1120	1120	
2007	Agriculture	1700	370	270	640	114	114	228	1640	1140	2780	1140	1140	1140	1140	1140	1140	
2008	Agriculture	1800	380	280	660	116	116	232	1660	1160	2820	1160	1160	1160	1160	1160	1160	
2009	Agriculture	1900	390	290	680	118	118	236	1680	1180	2860	1180	1180	1180	1180	1180	1180	
2010	Agriculture	2000	400	300	700	120	120	240	1700	1200	2900	1200	1200	1200	1200	1200	1200	
2011	Agriculture	2100	410	310	720	122	122	244	1720	1220	2940	1220	1220	1220	1220	1220	1220	
2012	Agriculture	2200	420	320	740	124	124	248	1740	1240	2980	1240	1240	1240	1240	1240	1240	
2013	Agriculture	2300	430	330	760	126	126	252	1760	1260	3020	1260	1260	1260	1260	1260	1260	
2014	Agriculture	2400	440	340	780	128	128	256	1780	1280	3060	1280	1280	1280	1280	1280	1280	
2015	Agriculture	2500	450	350	800	130	130	260	1800	1300	3100	1300	1300	1300	1300	1300	1300	
2016	Agriculture	2600	460	360	820	132	132	264	1820	1320	3140	1320	1320	1320	1320	1320	1320	
2017	Agriculture	2700	470	370	840	134	134	268	1840	1340	3180	1340	1340	1340	1340	1340	1340	
2018	Agriculture	2800	480	380	860	136	136	272	1860	1360	3220	1360	1360	1360	1360	1360	1360	
2019	Agriculture	2900	490	390	880	138	138	276	1880	1380	3260	1380	1380	1380	1380	1380	1380	
2020	Agriculture	3000	500	400	900	140	140	280	1900	1400	3300	1400	1400	1400	1400	1400	1400	
2021	Agriculture	3100	510	410	920	142	142	284	1920	1420	3340	1420	1420	1420	1420	1420	1420	
2022	Agriculture	3200	520	420	940	144	144	288	1940	1440	3380	1440	1440	1440	1440	1440	1440	
2023	Agriculture	3300	530	430	960	146	146	292	1960	1460	3420	1460	1460	1460	1460	1460	1460	
2024	Agriculture	3400	540	440	980	148	148	296	1980	1480	3460	1480	1480	1480	1480	1480	1480	
2025	Agriculture	3500	550	450	1000	150	150	300	2000	1500	3500	1500	1500	1500	1500	1500	1500	
2026	Agriculture	3600	560	460	1020	152	152	304	2020	1520	3540	1520	1520	1520	1520	1520	1520	
2027	Agriculture	3700	570	470	1040	154	154	308	2040	1540	3580	1540	1540	1540	1540	1540	1540	
2028	Agriculture	3800	580	480	1060	156	156	312	2060	1560	3620	1560	1560	1560	1560	1560	1560	
2029	Agriculture	3900	590	490	1080	158	158	316	2080	1580	3660	1580	1580	1580	1580	1580	1580	
2030	Agriculture	4000	600	500	1100	160	160	320	2100	1600	3700	1600	1600	1600	1600	1600	1600	
2031	Agriculture	4100	610	510	1120	162	162	324	2120	1620	3740	1620	1620	1620	1620	1620	1620	
2032	Agriculture	4200	620	520	1140	164	164	328	2140	1640	3780	1640	1640	1640	1640	1640	1640	
2033	Agriculture	4300	630	530	1160	166	166	332	2160	1660	3820	1660	1660	1660	1660	1660	1660	
2034	Agriculture	4400	640	540	1180	168	168	336	2180	1680	3860	1680	1680	1680	1680	1680	1680	
2035	Agriculture	4500	650	550	1200	170	170	340	2200	1700	3900	1700	1700	1700	1700	1700	1700	
2036	Agriculture	4600	660	560	1220	172	172	344	2220	1720	3940	1720	1720	1720	1720	1720	1720	
2037	Agriculture	4700	670	570	1240	174	174	348	2240	1740	3980	1740	1740	1740	1740	1740	1740	
2038	Agriculture	4800	680	580	1260	176	176	352	2260	1760	4020	1760	1760	1760	1760	1760	1760	
2039	Agriculture	4900	690	590	1280	178	178	356	2280	1780	4060	1780	1780	1780	1780	1780	1780	
2040	Agriculture	5000	700	600	1300	180	180	360	2300	1800	4100	1800	1800	1800	1800	1800	1800	
2041	Agriculture	5100	710	610	1320	182	182	364	2320	1820	4140	1820	1820	1820	1820	1820	1820	
2042	Agriculture	5200	720	620	1340	184	184	368	2340	1840	4180	1840	1840	1840	1840	1840	1840	
2043	Agriculture	5300	730	630	1360	186	186	372	2360	1860	4220	1860	1860	1860	1860	1860	1860	
2044	Agriculture	5400	740	640	1380	188	188	376	2380	1880	4260	1880	1880	1880	1880	1880	1880	
2045	Agriculture	5500	750	650	1400	190	190	380	2400	1900	4300	1900	1900	1900	1900	1900	1900	
2046	Agriculture	5600	760	660	1420	192	192	384	2420	1920	4340	1920	1920	1920	1920	1920	1920	
2047	Agriculture	5700	770	670	1440	194	194	388	2440	1940	4380	1940	1940	1940	1940	1940	1940	
2048	Agriculture	5800	780	680	1460	196	196	392	2460	1960	4420	1960	1960	1960	1960	1960	1960	
2049	Agriculture	5900	790	690	1480	198	198	396	2480	1980	4460	1980	1980	1980	1980	1980	1980	
2050	Agriculture	6000	800	700	1500	200	200	400	2500	2000	4500	2000	2000	2000	2000	2000	2000	
2051	Agriculture	6100	810	710	1520	202	202	404	2520	2020	4540	2020	2020	2020	2020	2020	2020	
2052	Agriculture	6200	820	720	1540	204	204	408	2540	2040	4580	2040	2040	2040	2040	2040	2040	
2053	Agriculture	6300	830	730	1560	206	206	412	2560	2060	4620	2060	2060	2060	2060	2060	2060	
2054	Agriculture	6400	840	740	1580	208	208	416	2580	2080	4660	2080	2080	2080	2080	2080	2080	
2055	Agriculture	6500	850	750	1600	210	210	420	2600	2100	4700	2100	2100	2100	2100	2100	2100	
2056	Agriculture	6600	860	760	1620	212	212	424	2620	2120	4740	2120	2120	2120	2120	2120	2120	
2057	Agriculture	6700	870	770	1640	214	214	428	2640	2140	4780	2140	2140	2140	2140	2140	2140	
2058	Agriculture	6800	880	780	1660	216	216	432	2660	2160	4820	2160	2160	2160	2160	2160	2160	
2059	Agriculture	6900	890	790	1680	218	218	436	2680	2180	4860	2180	2180	2180	2180	2180	2180	
2060	Agriculture	7000	900	800	1700	220	220	440	2700	2200	4900	2200	2200	2200	2200	2200	2200	
2061	Agriculture	7100	910	810	1720	222	222	444	2720	2220	4940	2220	2220	2220	2220	2220	2220	
2062	Agriculture	7200	920	820	1740	224	224	448	2740	2240	4980	2240	2240	2240	2240	2240	2240	
2063	Agriculture	7300	930	830	1760	226	226	452	2760	2260	5020	2260	2260	2260	2260	2260	2260	
2064	Agriculture	7400	940	840	1780	228	228	456	2780	2280	5060	2280	2280	2280	2280	2280	2280	
2065	Agriculture	7500	950	850	1800	230	230	460	2800	2300	5100	2300	2300	2300	2300	2300	2300	
2066	Agriculture	7600	960	860	1820	232	232	464	2820	2320	5140	2320	2320	2320	2320	2320	2320	
2067	Agriculture	7700	970	870	1840	234	234	468	2840	2340	5180	2340	2340	2340	2340	2340	2340	
2068	Agriculture	7800	980	880	1860	236	236	472	2860	2360	5220	2360	2360	2360	2360	2360	2360	
2069	Agriculture	7900	990	890	1880	238	238	476	2880	2380	5260	2380	2380	2380	2380	2380	2380	
2070	Agriculture	8000	1000	900	1900	240	240	480	2900	2400	5300	2400	2400	2400	2400	2400	2400	
2071	Agriculture	8100	1010	910	1920	242	242	484	2920	2420	5340	2420	2420	2420	2420	2420	2420	
2072	Agriculture	8200	1020	920	1940	244	244	488	2940	2440	5380	2440	2440	2440				

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Rate Impact Measure Test Data

All Costs in 1998 dollars	Analysis Start Year: 1998	Number of Years:	20	Electric Rate Number
Gas Program:	Residential Propane Distribution Program	Gas Rate Number		
Gas Structure:	Propane	Alternate Optic:	Electric Resistance Furnace	
Alternative:	\$378	Alt Fuel/Type:	Electric	
Gas Utility:	Chesterfield Utilities Corporation	Electric Utility:	Tampa Electric	
		V. New Customer Installation Costs		
		1. Supply Main	\$25	
		2. Development Main	114	
		3. Service	284	
		4. Meter	205	
		Total Cust. Cost	<u>\$1725</u>	
		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		
		2. Commodity (Annual)		
		3. Winter Multiple		
		4. Summer Multiple		
		5. Transportation, Capacity, Peaking and Balancing Cost		
		0.041175		
		VI. Thermo Shrinkage		
		VI. Thermo Conserved		
		1. Energy Factor		
		2. Annual Gas Therms		
		VII. Therma Displaced		
		1. Energy Factor		
		Therms Displaced		
		2. Standard Rate		
		Total		
		VIII. Therms Per Hour @ Utility Receipt Point		
		Therms per hour		
		1. Consumed		
		2. Consumed New		
		3. Consumed Existing		
		4. Displaced		
		IX. Common Gas & Electric Data		
		1. Discount Rate		
		8.65%		

Rate Impact Measure Test Data

Heating

Consumed Gas Therms	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	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 \$2,067Present Value
of Costs \$1,289Benefit/Cost
Ratio 1.60

Table 1

Table 2

Year	Annual		Total of Returns		Ratio of Returns	
	1935	1936	Completed To Total	Completed	Completed	Completed
1	1.75	1.75	1.75	1.75	1.75	1.75
2	6.79	6.24	6.14	6.14	6.14	6.14
3	6.38	6.21	6.14	6.14	6.14	6.14
4	7.19	6.22	6.14	6.14	6.14	6.14
5	7.22	6.78	6.14	6.14	6.14	6.14
6	7.64	6.42	6.14	6.14	6.14	6.14
7	7.76	6.34	6.14	6.14	6.14	6.14
8	7.58	6.63	6.14	6.14	6.14	6.14
9	7.28	6.39	6.14	6.14	6.14	6.14
10	6.23	6.77	6.14	6.14	6.14	6.14
11	6.48	10.17	6.14	6.14	6.14	6.14
12	6.24	10.43	6.14	6.14	6.14	6.14
13	6.00	10.47	6.14	6.14	6.14	6.14
14	5.37	11.15	6.14	6.14	6.14	6.14
15	6.60	10.48	6.14	6.14	6.14	6.14
16	6.65	11.17	6.14	6.14	6.14	6.14
17	10.13	12.62	6.14	6.14	6.14	6.14
18	10.42	13.57	6.14	6.14	6.14	6.14
19	10.24	12.62	6.14	6.14	6.14	6.14
20	11.87	13.24	6.14	6.14	6.14	6.14
21	11.48	13.77	6.14	6.14	6.14	6.14

Table 4

三

Country	Population	GDP		GDP per capita		GDP growth		GDP per capita growth		GDP per capita change	
		Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant
Afghanistan	32,000,000	\$11,000	\$1,000	\$340	\$340	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Albania	2,800,000	\$11,000	\$1,000	\$3,900	\$3,900	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Algeria	36,000,000	\$11,000	\$1,000	\$3,000	\$3,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Angola	18,000,000	\$11,000	\$1,000	\$600	\$600	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Argentina	40,000,000	\$11,000	\$1,000	\$2,750	\$2,750	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Armenia	2,900,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Aruba	100,000	\$11,000	\$1,000	\$11,000	\$11,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Australia	22,000,000	\$11,000	\$1,000	\$5,000	\$5,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Austria	8,000,000	\$11,000	\$1,000	\$6,250	\$6,250	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Azerbaijan	8,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Bahrain	1,000,000	\$11,000	\$1,000	\$11,000	\$11,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Bangladesh	140,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Barbados	280,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Belarus	9,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Belgium	10,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Bolivia	8,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Bosnia and Herzegovina	3,500,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Botswana	2,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Brazil	190,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Bulgaria	7,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Burkina Faso	14,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Burundi	8,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Cambodia	14,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Cameroon	18,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Central African Republic	3,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Chad	8,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Chile	16,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
China	1,300,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Colombia	42,000,000	\$11,000	\$1,000	\$1,000	\$1,000	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Congo	5,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Cote d'Ivoire	18,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Croatia	4,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Cuba	11,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Cyprus	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Czech Republic	10,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Dahomey	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Djibouti	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Dominican Republic	8,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Ecuador	13,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Egypt	75,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
El Salvador	6,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Equatorial Guinea	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Eritrea	4,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Estonia	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Eswatini	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Ethiopia	70,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Fiji	800,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Finland	5,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
France	60,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Gabon	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Greece	10,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Guinea	8,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Haiti	8,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Honduras	7,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Hungary	9,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Iceland	300,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
India	1,100,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Indonesia	210,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Iraq	25,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Ireland	4,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Israel	7,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Italy	55,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Jamaica	2,800,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Japan	125,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Jordan	6,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Kazakhstan	16,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Kenya	40,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Kiribati	10,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Latvia	2,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Lithuania	3,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Luxembourg	400,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Macedonia	2,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Malta	400,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Mali	14,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Mauritania	3,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Mauritius	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Mexico	105,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Moldova	3,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Mongolia	2,500,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Morocco	30,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Namibia	2,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Nepal	25,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Nicaragua	5,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Niger	15,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Nigeria	140,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Oman	2,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Pakistan	150,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Panama	3,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Papua New Guinea	6,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Paraguay	5,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Peru	28,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Philippines	85,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Poland	38,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Portugal	10,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Romania	20,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Russia	140,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Saint Lucia	150,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Saint Vincent and the Grenadines	100,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Samoa	150,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Sao Tome and Principe	100,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Senegal	10,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Serbia	7,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Singapore	4,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Slovakia	5,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Solomon Islands	1,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Sri Lanka	18,000,000	\$11,000	\$1,000	\$100	\$100	-0.1%	-0.1%	-0.1%	-0.1%		

Table 5

Year	Treatment	Wetland	Tissue	Constituents		Concentration (mg/L)	Concentration (mg/g)	Concentration (mg/g)	Concentration (mg/g)	Concentration (mg/g)
				Mean	SD					
1	U79	U79	Root	8.2256	0.8933	1.23	562	1.23	562	1.23
2	U77	U77	Root	8.2218	0.8820	1.23	562	1.23	562	1.23
3	U77	U77	Root	8.2087	0.8693	1.23	562	1.23	562	1.23
4	U77	U77	Root	8.2468	0.8680	1.23	562	1.23	562	1.23
5	U77	U77	Root	8.2523	0.8670	1.23	562	1.23	562	1.23
6	U77	U77	Root	8.2628	0.8664	1.23	570	1.23	570	1.23
7	U77	U77	Root	8.2687	0.8669	1.23	572	1.23	572	1.23
8	U77	U77	Root	8.2758	0.8673	1.23	574	1.23	574	1.23
9	U77	U77	Root	8.2851	0.8678	1.23	577	1.23	577	1.23
10	U77	U77	Root	8.2926	0.8684	1.23	579	1.23	579	1.23
11	U77	U77	Root	8.3024	0.8691	1.23	581	1.23	581	1.23
12	U77	U77	Root	8.3115	0.8698	1.23	582	1.23	582	1.23
13	U77	U77	Root	8.3208	0.8705	1.23	583	1.23	583	1.23
14	U77	U77	Root	8.3305	0.8713	1.23	584	1.23	584	1.23
15	U77	U77	Root	8.3404	0.8722	1.23	585	1.23	585	1.23
16	U77	U77	Root	8.3509	0.8730	1.23	586	1.23	586	1.23
17	U77	U77	Root	8.3611	0.8739	1.23	587	1.23	587	1.23
18	U77	U77	Root	8.3729	0.8750	1.23	588	1.23	588	1.23
19	U77	U77	Root	8.3831	0.8751	1.23	589	1.23	589	1.23

Rate Impact Measure Test Data

All Costs in	1998	dollars.	Analysis Start Year:	1998	Number of Years:	20	Electric Rate Number	
Gas Program:	Residential Propane Distribution Program		Gas Rate Number					
Gas Supplier:	Dryer		Alternate Options:	Dryer				
Address:	5709		Alt. Fuel Type:	Electric				
Gas Utility:	Chesterfield Utilities Corporation		Electric Utility:	Tangle Electric				
			IV. New Customer Installation Costs					
			\$					
1. Avoided Meter Removal Cost		\$0						
2. Avoided Cut & Cap Cost		0						
Total Costs		\$0						
			V. Gas Supply Cost \$/Therm					
			1. Load Profile Type					
			2. Commodity (Annual)					
			3. Winter Multiplier					
			4. Summer Multiplier					
			5. Transportation, Capacity, Peaking and Balancing Cost					
			VI. Thermo Shrinkage					
			1. Thermo Consumed					
			2. Standard Rate					
			III. Gas Rates	Rate				
			6. Base, Winter	\$0.43125				
			7. Base, Summer	\$0.43125				
			8. Seasonal, Winter					
			9. Seasonal, Summer					
			10. PDA, Winter	0.38977				
			11. PDA, Summer	0.38977				
			12. Customer Chg	\$0.50				
			13. Ratio of Thermo Consumed to Total	10.87%				
			14. Average Life	13				
			15. Common Gas & Electric Data					
			1. Discount Rate					

Rate Impact Measure Test Data

Dryer

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	Total Columns 6 thru 9
1	2	3	4	5	6	7	8
		\$	\$	\$	\$	\$	\$
1	38	8	46	6	3	14	123
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 \$537Present Value
of Costs \$351Benefit/Cost
Ratio 1.53

Table 1

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Table 4

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Table 6

Rate Impact Measure Test Data

All Costs In	1990 dollars	Analysis Start Year:	1990	Number of Years:	20	Electric Rate Number	
Gas Program:	R residential Propane	Gas Rate Number					
Gas Business Name:	Gasoline Propane Range	Alternate Options	Range Electric				
Address:	579	Gas Type:	Propane				
Gas Using:	Chesapeake Utilities Corporation	Electric Utility:	Tampa Electric				
		IV. New Customer Installation Costs					
		1. Supply Main	\$25				
		2. Developed Main	114				
		3. Service	264				
		4. Meter	205				
		Total 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					
		2. Commodity (Annual)					
		3. Winter Multiplier					
		4. Summer Multiplier					
		5. Transportation, Capacity, Peaking and Balancing Cost	\$0.04175				
		VI. System Shrinkage					
		1. NL Therms Conserved					
		2. Annual Gas Therms					
		3. Winter Multiplier					
		4. Summer Multiplier					
		5. Transportation, Capacity, Peaking and Balancing Cost	\$0.04175				
		Gen Ratios	Ratio				
		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. Standard Rate					
		Therms Displaced					
		1. Energy Factor					
		2. Annual Gas Therms					
		3. Winter Multiplier					
		4. Summer Multiplier					
		5. Transportation, Capacity, Peaking and Balancing Cost	\$0.04175				
		13. Customer Chg	\$0.50				
		14. Ratio of Therms Consumed to Total	7.57%				
		15. Average Lbs	19				
		II. Common Gas & Electric Data					
		1. Discount Rate	8.05%				

Rate Impact Measure Test Data

Range

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	Total Columns 6 thru 9	
Table 1	Table 2	Table 3	Table 4	Table 5				
1	2	3	4	5	6	7	8	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 \$372Present Value
of Costs \$279Benefit/Cost
Ratio 1.33

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Year	Type	Name	Designation	PCN (Units)		T-1000 (Units)		T-1000 (Units)	
				PCN	PCN	T-1000	T-1000	T-1000	T-1000
2000	22	16.231739	50.35077	16.42113	16.42113	52	52	52	52
2001	22	16.452729	50.46148	16.48068	16.48068	52	52	52	52
2002	22	16.47725	50.47250	16.50714	16.50714	52	52	52	52
2003	22	16.485239	50.48350	16.52467	16.52467	52	52	52	52
2004	22	16.489505	50.49115	16.54171	16.54171	52	52	52	52
2005	22	16.514065	50.50240	16.56003	16.56003	52	52	52	52
2006	22	16.520440	50.51274	16.56974	16.56974	52	52	52	52
2007	22	16.546271	50.52374	16.59055	16.59055	52	52	52	52
2008	22	16.562779	50.53581	16.62139	16.62139	52	52	52	52
2009	22	16.579208	50.54821	16.64268	16.64268	52	52	52	52
2010	22	16.595606	50.56050	16.66404	16.66404	52	52	52	52
2011	22	16.611467	50.57270	16.68539	16.68539	52	52	52	52
2012	22	16.623323	50.58500	16.70671	16.70671	52	52	52	52
2013	22	16.639223	50.59724	16.72809	16.72809	52	52	52	52
2014	22	16.655123	50.61049	16.74947	16.74947	52	52	52	52
2015	22	16.671023	50.62274	16.77073	16.77073	52	52	52	52
2016	22	16.686923	50.63500	16.79204	16.79204	52	52	52	52
2017	22	16.702823	50.64724	16.81332	16.81332	52	52	52	52
2018	22	16.718723	50.65949	16.83462	16.83462	52	52	52	52
2019	22	16.734623	50.67174	16.85591	16.85591	52	52	52	52
2020	22	16.750523	50.68400	16.87721	16.87721	52	52	52	52
2021	22	16.766423	50.69624	16.89850	16.89850	52	52	52	52
2022	22	16.782323	50.70849	16.91979	16.91979	52	52	52	52
2023	22	16.808223	50.72074	16.94108	16.94108	52	52	52	52
2024	22	16.824123	50.73300	16.96237	16.96237	52	52	52	52
2025	22	16.840023	50.74524	16.98365	16.98365	52	52	52	52
2026	22	16.855923	50.75749	17.00494	17.00494	52	52	52	52
2027	22	16.871823	50.76974	17.02623	17.02623	52	52	52	52
2028	22	16.887723	50.78200	17.04751	17.04751	52	52	52	52
2029	22	16.903623	50.79424	17.06879	17.06879	52	52	52	52
2030	22	16.919523	50.80649	17.09008	17.09008	52	52	52	52
2031	22	16.935423	50.81874	17.11136	17.11136	52	52	52	52
2032	22	16.951323	50.83100	17.13265	17.13265	52	52	52	52
2033	22	16.967223	50.84324	17.15393	17.15393	52	52	52	52
2034	22	16.983123	50.85549	17.17521	17.17521	52	52	52	52
2035	22	16.999023	50.86774	17.19649	17.19649	52	52	52	52
2036	22	17.014923	50.88000	17.21778	17.21778	52	52	52	52
2037	22	17.030823	50.89224	17.23906	17.23906	52	52	52	52
2038	22	17.046723	50.90449	17.26034	17.26034	52	52	52	52
2039	22	17.062623	50.91674	17.28162	17.28162	52	52	52	52
2040	22	17.078523	50.92898	17.30290	17.30290	52	52	52	52
2041	22	17.094423	50.94124	17.32418	17.32418	52	52	52	52
2042	22	17.110323	50.95349	17.34546	17.34546	52	52	52	52
2043	22	17.126223	50.96574	17.36674	17.36674	52	52	52	52
2044	22	17.142123	50.97800	17.38802	17.38802	52	52	52	52
2045	22	17.158023	50.99024	17.40930	17.40930	52	52	52	52
2046	22	17.173923	50.99249	17.43058	17.43058	52	52	52	52
2047	22	17.189823	50.99474	17.45186	17.45186	52	52	52	52
2048	22	17.205723	50.99700	17.47314	17.47314	52	52	52	52
2049	22	17.221623	50.99924	17.49442	17.49442	52	52	52	52
2050	22	17.237523	50.99949	17.51569	17.51569	52	52	52	52
2051	22	17.253423	50.99974	17.53697	17.53697	52	52	52	52
2052	22	17.269323	50.99998	17.55825	17.55825	52	52	52	52
2053	22	17.285223	50.99998	17.57953	17.57953	52	52	52	52
2054	22	17.301123	50.99998	17.59981	17.59981	52	52	52	52
2055	22	17.317023	50.99998	17.62109	17.62109	52	52	52	52
2056	22	17.332923	50.99998	17.64237	17.64237	52	52	52	52
2057	22	17.348823	50.99998	17.66365	17.66365	52	52	52	52
2058	22	17.364723	50.99998	17.68493	17.68493	52	52	52	52
2059	22	17.380623	50.99998	17.70621	17.70621	52	52	52	52
2060	22	17.396523	50.99998	17.72749	17.72749	52	52	52	52
2061	22	17.412423	50.99998	17.74877	17.74877	52	52	52	52
2062	22	17.428323	50.99998	17.76905	17.76905	52	52	52	52
2063	22	17.444223	50.99998	17.78933	17.78933	52	52	52	52
2064	22	17.459123	50.99998	17.80961	17.80961	52	52	52	52
2065	22	17.475023	50.99998	17.82989	17.82989	52	52	52	52
2066	22	17.490923	50.99998	17.85117	17.85117	52	52	52	52
2067	22	17.506823	50.99998	17.87145	17.87145	52	52	52	52
2068	22	17.522723	50.99998	17.89173	17.89173	52	52	52	52
2069	22	17.538623	50.99998	17.91201	17.91201	52	52	52	52
2070	22	17.554523	50.99998	17.93229	17.93229	52	52	52	52
2071	22	17.570423	50.99998	17.95257	17.95257	52	52	52	52
2072	22	17.586323	50.99998	17.97285	17.97285	52	52	52	52
2073	22	17.602223	50.99998	17.99313	17.99313	52	52	52	52
2074	22	17.618123	50.99998	17.10341	17.10341	52	52	52	52
2075	22	17.634023	50.99998	17.12369	17.12369	52	52	52	52
2076	22	17.649923	50.99998	17.14397	17.14397	52	52	52	52
2077	22	17.665823	50.99998	17.16425	17.16425	52	52	52	52
2078	22	17.681723	50.99998	17.18453	17.18453	52	52	52	52
2079	22	17.697623	50.99998	17.20481	17.20481	52	52	52	52
2080	22	17.713523	50.99998	17.22509	17.22509	52	52	52	52
2081	22	17.729423	50.99998	17.24537	17.24537	52	52	52	52
2082	22	17.745323	50.99998	17.26565	17.26565	52	52	52	52
2083	22	17.761223	50.99998	17.28593	17.28593	52	52	52	52
2084	22	17.777123	50.99998	17.30621	17.30621	52	52	52	52
2085	22	17.793023	50.99998	17.32649	17.32649	52	52	52	52
2086	22	17.808923	50.99998	17.34677	17.34677	52	52	52	52
2087	22	17.824823	50.99998	17.36705	17.36705	52	52	52	52
2088	22	17.840723	50.99998	17.38733	17.38733	52	52	52	52
2089	22	17.856623	50.99998	17.40761	17.40761	52	52	52	52
2090	22	17.872523	50.99998	17.42789	17.42789	52	52	52	52
2091	22	17.888423	50.99998	17.44817	17.44817	52	52	52	52
2092	22	17.904323	50.99998	17.46845	17.46845	52	52	52	52
2093	22	17.920223	50.99998	17.48873	17.48873	52	52	52	52
2094	22	17.936123	50.99998	17.50901	17.50901	52	52	52	52
2095	22	17.952023	50.99998	17.52929	17.52929	52	52	52	52
2096	22	17.967923	50.99998	17.54957	17.54957	52	52	52	52
2097	22	17.983823	50.99998	17.56985	17.56985	52	52	52	52
2098	22	18.009723	50.99998	17.58913	17.58913	52	52	52	52
2099	22	18.025623	50.99998	17.60941	17.60941	52	52	52	52
2100	22	18.041523	50.99998	17.62969	17.62969	52	52	52	52
2101	22	18.057423	50.99998	17.64997	17.64997	52	52	52	52
2102	22	18.073323	50.99998	17.66925	17.66925	52	52	52	52
2103	22	18.089223	50.99998	17.68953	17.68953	52	52	52	52
2104	22	18.105123	50.99998	17.70981	17.70981	52	52	52	52
2105	22	18.121023	50.99998	17.72909	17.72909	52	52	52	52
2106	22	18.136923	50.99998	17.74937	17.74937	52	52	52	52
2107	22	18.152823	50.99998	17.76965	17.76965	52	52	52	52
2108	22	18.168723	50.99998	17.78993	17.78993	52	52	52	52
2109	22	18.184623	50.99998	17.80921	17.80921	52	52	52	52
2110	22	18.200523	50.99998	17.82949	17.82949	52	52	52	52
2111	22	18.216423	50.99998	17.84977	17.84977	52	52	52	52
2112	22	18.232323	50.99998	17.86905	17.86905	52	52	52	52
2113	22	18.248223	50.99998	17.88933	17.88933	52	52	52	52
2114	22	18.264123	50.99998	17.90961	17.90961	52	52	52	52
2115	22	18.279923	50.99998	17.92989	17.92989	52	52	52	52
2116	22	18.295823	50.99998	17					

Table 4

Year	Age	Annual household income	Family size	Current		Past 12 months		New customers		New & New Old	
				Count	%	Count	%	Count	%	Count	%
2010	18-24	\$15,000 or less	114	36	31%	120	34	114	31	114	31
2010	18-24	\$15,001-\$24,999	110	36	31	120	34	114	31	114	31
2010	18-24	\$25,000-\$34,999	102	37	32	112	31	114	31	114	31
2010	18-24	\$35,000-\$44,999	98	36	32	108	30	114	31	114	31
2010	18-24	\$45,000-\$54,999	96	36	32	106	29	106	30	106	30
2010	18-24	\$55,000-\$64,999	93	36	32	104	28	104	29	104	29
2010	18-24	\$65,000-\$74,999	91	36	32	102	27	102	28	102	27
2010	18-24	\$75,000-\$84,999	89	36	32	98	26	98	27	98	26
2010	18-24	\$85,000-\$94,999	87	36	32	96	25	96	26	96	25
2010	18-24	\$95,000-\$104,999	85	36	32	94	24	94	25	94	24
2010	18-24	\$105,000 or more	83	36	32	92	23	92	24	92	23
2010	25-34	\$15,000 or less	74	28	31	78	34	74	28	74	28
2010	25-34	\$15,001-\$24,999	70	28	30	76	33	70	28	70	28
2010	25-34	\$25,000-\$34,999	67	28	30	72	31	67	28	67	28
2010	25-34	\$35,000-\$44,999	64	28	30	69	30	64	28	64	28
2010	25-34	\$45,000-\$54,999	62	28	30	67	29	62	28	62	28
2010	25-34	\$55,000-\$64,999	60	28	30	65	28	60	28	60	28
2010	25-34	\$65,000-\$74,999	58	28	30	63	27	58	28	58	28
2010	25-34	\$75,000-\$84,999	56	28	30	61	26	56	28	56	28
2010	25-34	\$85,000-\$94,999	54	28	30	59	25	54	28	54	28
2010	25-34	\$95,000-\$104,999	52	28	30	57	24	52	28	52	28
2010	25-34	\$105,000 or more	50	28	30	55	23	50	28	50	28
2010	35-44	\$15,000 or less	43	20	23	46	20	43	20	43	20
2010	35-44	\$15,001-\$24,999	40	20	22	43	19	40	19	40	19
2010	35-44	\$25,000-\$34,999	37	20	21	40	17	37	17	37	17
2010	35-44	\$35,000-\$44,999	34	20	21	37	16	34	16	34	16
2010	35-44	\$45,000-\$54,999	32	20	21	35	15	32	15	32	15
2010	35-44	\$55,000-\$64,999	30	20	21	33	14	30	14	30	14
2010	35-44	\$65,000-\$74,999	28	20	21	31	13	28	13	28	13
2010	35-44	\$75,000-\$84,999	26	20	21	29	12	26	12	26	12
2010	35-44	\$85,000-\$94,999	24	20	21	27	11	24	11	24	11
2010	35-44	\$95,000-\$104,999	22	20	21	25	10	22	10	22	10
2010	35-44	\$105,000 or more	20	20	21	23	9	20	9	20	9
2010	45-54	\$15,000 or less	17	10	19	19	10	17	10	17	10
2010	45-54	\$15,001-\$24,999	16	10	18	18	9	16	9	16	9
2010	45-54	\$25,000-\$34,999	15	10	17	17	8	15	8	15	8
2010	45-54	\$35,000-\$44,999	14	10	16	16	7	14	7	14	7
2010	45-54	\$45,000-\$54,999	13	10	15	15	6	13	6	13	6
2010	45-54	\$55,000-\$64,999	12	10	14	14	5	12	5	12	5
2010	45-54	\$65,000-\$74,999	11	10	13	13	4	11	4	11	4
2010	45-54	\$75,000-\$84,999	10	10	12	12	3	10	3	10	3
2010	45-54	\$85,000-\$94,999	9	10	11	11	2	9	2	9	2
2010	45-54	\$95,000-\$104,999	8	10	10	10	1	8	1	8	1
2010	45-54	\$105,000 or more	7	10	9	9	0	7	0	7	0
2010	55-64	\$15,000 or less	10	6	16	11	6	10	6	10	6
2010	55-64	\$15,001-\$24,999	9	6	15	10	5	9	5	9	5
2010	55-64	\$25,000-\$34,999	8	6	14	9	4	8	4	8	4
2010	55-64	\$35,000-\$44,999	7	6	13	8	3	7	3	7	3
2010	55-64	\$45,000-\$54,999	6	6	12	7	2	6	2	6	2
2010	55-64	\$55,000-\$64,999	5	6	11	6	1	5	1	5	1
2010	55-64	\$65,000-\$74,999	4	6	10	5	0	4	0	4	0
2010	55-64	\$75,000-\$84,999	3	6	9	4	0	3	0	3	0
2010	55-64	\$85,000-\$94,999	2	6	8	3	0	2	0	2	0
2010	55-64	\$95,000-\$104,999	1	6	7	2	0	1	0	1	0
2010	55-64	\$105,000 or more	0	6	6	0	0	0	0	0	0
2010	65+	\$15,000 or less	10	5	20	10	5	10	5	10	5
2010	65+	\$15,001-\$24,999	9	5	19	9	4	9	4	9	4
2010	65+	\$25,000-\$34,999	8	5	18	8	3	8	3	8	3
2010	65+	\$35,000-\$44,999	7	5	17	7	2	7	2	7	2
2010	65+	\$45,000-\$54,999	6	5	16	6	1	6	1	6	1
2010	65+	\$55,000-\$64,999	5	5	15	5	0	5	0	5	0
2010	65+	\$65,000-\$74,999	4	5	14	4	0	4	0	4	0
2010	65+	\$75,000-\$84,999	3	5	13	3	0	3	0	3	0
2010	65+	\$85,000-\$94,999	2	5	12	2	0	2	0	2	0
2010	65+	\$95,000-\$104,999	1	5	11	1	0	1	0	1	0
2010	65+	\$105,000 or more	0	5	5	0	0	0	0	0	0

Table 2

Year	Cigarette Consumption	Ratio of Theoretical Consumption to Total			Ratio of Theoretical Consumption to Total	Ratio of Theoretical Consumption to Total
		Actual	Optimal	Optimal		
1	6.56	76.46	1.57%	1.57%	1.57%	1.57%
2	6.79	86.24	1.57%	1.57%	1.57%	1.57%
3	6.90	82.75	1.57%	1.57%	1.57%	1.57%
4	7.10	85.22	1.57%	1.57%	1.57%	1.57%
5	7.32	87.78	1.57%	1.57%	1.57%	1.57%
6	7.54	86.47	1.57%	1.57%	1.57%	1.57%
7	7.76	83.34	1.57%	1.57%	1.57%	1.57%
8	7.88	86.42	1.57%	1.57%	1.57%	1.57%
9	8.23	88.41	1.57%	1.57%	1.57%	1.57%
10	8.46	90.77	1.57%	1.57%	1.57%	1.57%
11	8.74	98.43	1.57%	1.57%	1.57%	1.57%
12	9.00	107.87	1.57%	1.57%	1.57%	1.57%
13	9.27	111.27	1.57%	1.57%	1.57%	1.57%
14	9.55	114.55	1.57%	1.57%	1.57%	1.57%
15	9.82	117.98	1.57%	1.57%	1.57%	1.57%
16	10.13	121.42	1.57%	1.57%	1.57%	1.57%
17	10.43	125.17	1.57%	1.57%	1.57%	1.57%
18	10.74	128.83	1.57%	1.57%	1.57%	1.57%
19	11.07	132.79	1.57%	1.57%	1.57%	1.57%
20	11.40	136.75	1.57%	1.57%	1.57%	1.57%

Table 5

Year	Name	Address	Commodity	Yield		Value	Quality
				Planted	Harvested		
1	Jones	123 Main St.	Corn	8,2250	6,8410	\$1,33	850
2	Jones	123 Main St.	Corn	8,2118	6,8450	\$1,33	870
3	Jones	123 Main St.	Corn	8,2057	6,8490	\$1,33	890
4	Jones	123 Main St.	Corn	8,2053	6,8490	\$1,33	910
5	Jones	123 Main St.	Corn	8,2050	6,8470	\$1,33	911
6	Jones	123 Main St.	Corn	8,2050	6,8484	\$1,33	911
7	Jones	123 Main St.	Corn	8,2057	6,8500	\$1,33	912
8	Jones	123 Main St.	Corn	8,2070	6,8513	\$1,33	912
9	Jones	123 Main St.	Corn	8,2051	6,8520	\$1,33	913
10	Jones	123 Main St.	Corn	8,2050	6,8545	\$1,33	913
11	Jones	123 Main St.	Corn	8,2050	6,8561	\$1,33	913
12	Jones	123 Main St.	Corn	8,2115	6,8579	\$1,33	913
13	Jones	123 Main St.	Corn	8,2250	6,8595	\$1,33	914
14	Jones	123 Main St.	Corn	8,2350	6,8615	\$1,33	914
15	Jones	123 Main St.	Corn	8,2404	6,8622	\$1,33	915
16	Jones	123 Main St.	Corn	8,2508	6,8630	\$1,33	915
17	Jones	123 Main St.	Corn	8,2611	6,8670	\$1,33	916
18	Jones	123 Main St.	Corn	8,2770	6,8695	\$1,33	916
19	Jones	123 Main St.	Corn	8,2821	6,8711	\$1,33	917
20	Jones	123 Main St.	Corn	8,2940	6,8732	\$1,33	917

Table 3

Participants Cost Effectiveness Test Data

All Costs in 1990 dollars	Analysis Start Year: 1990	Number of Years:	20	Electric Rate Number
Gas Program:	Residential Propane	Gas Rate Number:		
Gas Structure: Water Heater	40 gallon	Internal Option: Alt Fuel Type:	Electric Resistance Water Heater/gallon	
Alternative:	\$275	Electric Utility:	Tampa Electric Co.	
Gas Utility:	Christopher Lummis Corporation	IV. Installed Cost Data		
1. Installed Cost Data				
1. Equipment	\$222	1. Equipment	\$223	
2. Installation	452	2. Installation	180	
Total Cost. Cost	\$704	Total Cost. Cost	\$412	
3. Utility Rebate	\$275	3. Utility Rebate	50	
4. Other Rebates		4. Other Rebates		
II. Operating Data		V. Energy Conservation Data		
1. Energy Factor	0.56	1. Energy Factor	0.66	New Existing
Therms Consumed	Winter	Summer	3,222	3,222
2. Standard Rate	101.0	67.0	168.0	
3. Seasonal Rate			0	0
Total	101.0	67.0	168.0	0
4. Electric Consumption in KWH		5. Diversified KW		
5. O&M (excluding energy)	\$7	6. Billing KW		
Gas Rates	Rate			
6. Base, Winter	\$0.43125	7. O&M (including energy)	\$9	
7. Base, Summer	\$0.43125	8. Monthly Utility Incentive	\$0	
8. Seasonal, Winter		9. Average Life in Yrs	14	
9. Seasonal, Summer		10. Existing Remaining Life in Yrs	0	
10. PQA, Winter	0.38977	11. Electric Rate per KWH	\$0.0725	
11. PQA, Summer	0.38977	12. Electric Rate per KWH, Winter	\$0.0000	
12. Tamm & Fees	13.67%	13. Electric Rate per KWH, Summer	\$0.0000	
13. Customer Chg	\$4.50	14. Electric Taxes & Fees	13.67%	
14. Ratio of Therma Consumed	39.72%	15. Customer Chg	\$4.45	
To Total				
15. Average Life	12	VI. Therma Displaced		
II. Common Gas & Electric Data		1. Energy Factor		
1. Discount Rate	0.05%	Therma Displaced, Winter		
Total		2. Standard Rate		
		Total	0.0	

PARTICIPANTS COST EFFECTIVE RESULTS

Water

Program Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed			Gas Appliance O&M Table 2	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
			-Conserved -Displaced Gas Therms	Alternate Appliance O&M	Gas Appliance O&M					10	11	12	13
1	\$267	\$0	\$157	\$9	\$7	\$35	\$0	\$0	\$77	\$0	\$0	\$0	\$0
2	\$275	\$0	\$161	\$9	\$7	\$36	0	0	\$79	0	0	0	0
3	\$283	\$0	\$166	\$10	\$7	\$37	0	0	\$81	0	0	0	0
4	\$291	\$0	\$171	\$10	\$8	\$38	0	0	\$84	0	0	0	0
5	\$300	\$0	\$176	\$10	\$8	\$40	0	0	\$86	0	0	0	0
6	\$309	\$0	\$182	\$10	\$8	\$41	0	0	\$89	0	0	0	0
7	\$318	\$0	\$187	\$11	\$8	\$42	0	0	\$91	0	0	0	0
8	\$328	\$0	\$193	\$11	\$9	\$43	0	0	\$94	0	0	0	0
9	\$338	\$0	\$199	\$11	\$9	\$45	0	0	\$97	0	0	0	0
10	\$348	\$0	\$205	\$12	\$9	\$46	0	0	\$100	0	0	0	0
11	\$358	\$0	\$211	\$12	\$9	\$47	0	0	\$103	0	298	298	298
12	\$369	\$0	\$217	\$12	\$10	\$49	0	0	\$106	0	0	0	0
13	\$380	\$0	\$224	\$13	\$10	\$50	0	0	\$109	332	0	(332)	0
14	\$392	\$0	\$230	\$13	\$10	\$52	0	0	\$112	0	0	0	0
15	\$403	\$0	\$237	\$14	\$11	\$53	0	0	\$116	0	0	0	0
16	\$415	\$0	\$244	\$14	\$11	\$55	0	0	\$119	0	0	0	0
17	\$428	\$0	\$252	\$14	\$11	\$57	0	0	\$123	0	0	0	0
18	\$441	\$0	\$259	\$15	\$12	\$58	0	0	\$127	0	0	0	0
19	\$454	\$0	\$267	\$15	\$12	\$60	0	0	\$130	0	0	0	0
20	\$467	\$0	\$275	\$16	\$12	\$62	0	0	\$134	0	0	0	0

Present Value of Benefits \$890 Present Value of Costs \$7

Benefit/Cost Ratio	132.76
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TABLE 1 Domestic KW Case - Water

Year	Domestic Case	Average Time	Per A Time	Per A Case
92	85,897.58	1,232.22	\$13.67%	\$1,100.00
93	86,677.02	1,232.22	\$13.67%	\$1,060.00
94	86,677.02	1,232.22	\$13.67%	\$1,060.00
95	86,677.02	1,232.22	\$13.67%	\$1,060.00
96	86,677.02	1,232.22	\$13.67%	\$1,060.00
97	86,677.02	1,232.22	\$13.67%	\$1,060.00
98	86,677.02	1,232.22	\$13.67%	\$1,060.00
99	86,677.02	1,232.22	\$13.67%	\$1,060.00
00	86,677.02	1,232.22	\$13.67%	\$1,060.00
01	86,677.02	1,232.22	\$13.67%	\$1,060.00
02	86,677.02	1,232.22	\$13.67%	\$1,060.00
03	86,677.02	1,232.22	\$13.67%	\$1,060.00
04	86,677.02	1,232.22	\$13.67%	\$1,060.00
05	86,677.02	1,232.22	\$13.67%	\$1,060.00
06	86,677.02	1,232.22	\$13.67%	\$1,060.00
07	86,677.02	1,232.22	\$13.67%	\$1,060.00
08	86,677.02	1,232.22	\$13.67%	\$1,060.00
09	86,677.02	1,232.22	\$13.67%	\$1,060.00
10	86,677.02	1,232.22	\$13.67%	\$1,060.00
11	86,677.02	1,232.22	\$13.67%	\$1,060.00
12	86,677.02	1,232.22	\$13.67%	\$1,060.00
13	86,677.02	1,232.22	\$13.67%	\$1,060.00
14	86,677.02	1,232.22	\$13.67%	\$1,060.00
15	86,677.02	1,232.22	\$13.67%	\$1,060.00
16	86,677.02	1,232.22	\$13.67%	\$1,060.00
17	86,677.02	1,232.22	\$13.67%	\$1,060.00
18	86,677.02	1,232.22	\$13.67%	\$1,060.00
19	86,677.02	1,232.22	\$13.67%	\$1,060.00
20	86,677.02	1,232.22	\$13.67%	\$1,060.00

TABLE 2 Domestic Other-Commercial Case - Water

Year	Domestic Case	Average Time	Per A Time	Per A Case
92	86,821.10	100	\$13.67%	\$1,100.00
93	86,821.10	100	\$13.67%	\$1,100.00
94	86,821.10	100	\$13.67%	\$1,100.00
95	86,821.10	100	\$13.67%	\$1,100.00
96	86,821.10	100	\$13.67%	\$1,100.00
97	86,821.10	100	\$13.67%	\$1,100.00
98	86,821.10	100	\$13.67%	\$1,100.00
99	86,821.10	100	\$13.67%	\$1,100.00
00	86,821.10	100	\$13.67%	\$1,100.00
01	86,821.10	100	\$13.67%	\$1,100.00
02	86,821.10	100	\$13.67%	\$1,100.00
03	86,821.10	100	\$13.67%	\$1,100.00
04	86,821.10	100	\$13.67%	\$1,100.00
05	86,821.10	100	\$13.67%	\$1,100.00
06	86,821.10	100	\$13.67%	\$1,100.00
07	86,821.10	100	\$13.67%	\$1,100.00
08	86,821.10	100	\$13.67%	\$1,100.00
09	86,821.10	100	\$13.67%	\$1,100.00
10	86,821.10	100	\$13.67%	\$1,100.00
11	86,821.10	100	\$13.67%	\$1,100.00
12	86,821.10	100	\$13.67%	\$1,100.00
13	86,821.10	100	\$13.67%	\$1,100.00
14	86,821.10	100	\$13.67%	\$1,100.00
15	86,821.10	100	\$13.67%	\$1,100.00
16	86,821.10	100	\$13.67%	\$1,100.00
17	86,821.10	100	\$13.67%	\$1,100.00
18	86,821.10	100	\$13.67%	\$1,100.00
19	86,821.10	100	\$13.67%	\$1,100.00
20	86,821.10	100	\$13.67%	\$1,100.00

TABLE 3 Non-Customer Charge

Year	Identify Other Case	Average Time	Per A Time	Per A Case	Non Customer Charge	Non Customer Charge
92	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
93	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
94	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
95	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
96	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
97	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
98	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
99	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
00	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
01	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
02	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
03	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
04	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
05	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
06	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
07	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
08	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
09	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
10	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
11	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
12	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
13	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
14	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
15	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
16	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
17	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
18	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
19	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00
20	86,821.10	100	\$13.67%	\$1,100.00	\$1,100.00	\$1,100.00

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars	Analysis Start Year: 1998	Number of Yes: 20	Electric Rate Number
Gas Program:	Residential Propane Distribution Program		
Gas Supplier:	Chesapeake Utilities Corp.		
I. Installed Cost Data			
1. Allowance:	\$275		
2. Gas Utility:	Chesapeake Utilities Corp.		
3. Total Cost, Cost	<u>\$2,059</u>		
IV. Installed Cost Data			
1. Equipment Installation	\$1,480	\$543	
2. Installation	579	619	
3. Total Cost, Cost	<u>\$2,059</u>	<u>\$1,129</u>	
V. Energy Consumed Data			
1. Utility Advance		\$2	
2. Other Advance			
3. Total Cost, Cost			
VI. Energy Consumed Data			
1. Energy Factor	0.78	1.00	1.00
2. Annual KWH		4,042	4,042
3. Annual Oil Gallons		0	0
4. Annual Gas Therm		0	0
5. Diversified KW			
6. Billing KW			
7. OAM (excluding energy)		59	
8. Monthly Utility Initiative		52	
9. Average Life in Yrs		16	
10. Building Remaining Life in Yrs		0	
11. Electric Rate per KWH		50.0728	
12. Electric Rate per KW, Winter		\$0.0000	
13. Electric Rate per KW, Summer		\$0.0000	
14. Electric Taxes & Fees		13.67%	
15. Customer Cng	\$6.20	\$8.26	
16. Ratio of Thermo Consumed to Total	41.34%		
17. Average Life	19		
18. Common Gas & Electric Data			
19. Discount Rate	6.65%		
20. Standard Rate			
21. Total	<u>0.00</u>	<u>0.00</u>	

DOCKET NO.

EXHIBIT C
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PARTICIPANTS COST EFFECTIVE RESULTS

Furnace

Program Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed			Gas Appliance O&M Table 2	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
			-Conserved Gas Therms	-Displaced Gas Therms	Alternate Appliance O&M					10			
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	\$21	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 \$1,477Present Value
of Costs \$305Benefit/Cost
Ratio 4.84

THEORY

Year	Cohort	Type A		Type B	
		Number	Proportion	Number	Proportion
1	162,677/28	4,622	13.07%	12,524	13.07%
2	162,677/28	4,623	13.07%	12,524	13.07%
3	162,677/28	4,623	13.07%	12,525	13.07%
4	162,677/28	4,623	13.07%	12,525	13.07%
5	162,677/28	4,623	13.07%	12,525	13.07%
6	162,677/28	4,623	13.07%	12,525	13.07%
7	162,677/28	4,623	13.07%	12,525	13.07%
8	162,677/28	4,623	13.07%	12,525	13.07%
9	162,677/28	4,623	13.07%	12,525	13.07%
10	162,677/28	4,623	13.07%	12,525	13.07%
11	162,677/28	4,623	13.07%	12,525	13.07%
12	162,677/28	4,623	13.07%	12,525	13.07%
13	162,677/28	4,623	13.07%	12,525	13.07%
14	162,677/28	4,623	13.07%	12,525	13.07%
15	162,677/28	4,623	13.07%	12,525	13.07%
16	162,677/28	4,623	13.07%	12,525	13.07%
17	162,677/28	4,623	13.07%	12,525	13.07%
18	162,677/28	4,623	13.07%	12,525	13.07%
19	162,677/28	4,623	13.07%	12,525	13.07%
20	162,677/28	4,623	13.07%	12,525	13.07%

TABLE II

	Year	Period	Approximate Number of Cases	Total Cases	Per cent of Total
1	193.6715	177	13,877	100.000	13.877%
2	193.6857	177	13,877	100.000	13.877%
3	193.6710	177	13,877	100.000	13.877%
4	193.6877	177	13,877	100.000	13.877%
5	193.6211	177	13,877	100.000	13.877%
6	193.6874	177	13,877	100.000	13.877%
7	193.6803	177	13,877	100.000	13.877%
8	191.5006	177	13,877	100.000	13.877%
9	191.5047	177	13,877	100.000	13.877%
10	191.5073	177	13,877	100.000	13.877%
11	191.5024	177	13,877	100.000	13.877%
12	191.5206	177	13,877	100.000	13.877%
13	191.5179	177	13,877	100.000	13.877%
14	191.2027	177	13,877	100.000	13.877%
15	191.2919	177	13,877	100.000	13.877%
16	191.2791	177	13,877	100.000	13.877%
17	191.3073	177	13,877	100.000	13.877%
18	191.3070	177	13,877	100.000	13.877%
19	191.3877	177	13,877	100.000	13.877%
20	191.3877	177	13,877	100.000	13.877%

TABLE I

Participants Cost Effectiveness Test Data

All Costs in 1998 dollars		Analysis Start Year: 1998	Number of Years:	20	Electric Rate Number
Gas Program:	Residential Propane Distribution Program	Gas Rate Number			
Gas Business:	Dryer				
Attenuator:	\$75				
Gas Utility:	Chesapeake Utilities Corporation				
I. Installed Cost Data					
1. Equipment	\$400				
2. Installation	160				
Total Instl. Cost	\$560				
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. PQA, Winter	0.38977				
11. PQA, Summer	0.38977				
12. Taxes & Fees	13.67%				
13. Customer Crdg	\$8.50				
14. Ratio of Therms Consumed to Total	10.87%				
15. Average Life	13				
16. Common Gas & Electric Data					
1. Discount rate	8.65%				
2. Standard Rate					
Total					

PARTICIPANTS COST EFFECTIVE RESULTS

Dryer

Program Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed		Gas Appliance O&M Table 2	Gas Appliance O&M Table 3	Gas Customer Charge	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
			-Conserved Gas Therms	-Displaced Gas Therms						10	11	12	13
1	\$82	\$0	\$43	\$14	\$10	\$10	\$0	\$0	\$33	\$0	\$0	\$0	\$0
2	\$84	\$0	\$44	\$14	\$10	\$10	0	0	\$34	0	0	0	0
3	\$86	\$0	\$46	\$15	\$11	\$10	0	0	\$35	0	0	0	0
4	\$89	\$0	\$47	\$15	\$11	\$11	0	0	\$36	0	0	0	0
5	\$92	\$0	\$48	\$16	\$11	\$11	0	0	\$37	0	0	0	0
6	\$94	\$0	\$50	\$16	\$12	\$11	0	0	\$38	0	0	0	0
7	\$97	\$0	\$51	\$17	\$12	\$12	0	0	\$39	0	0	0	0
8	\$100	\$0	\$53	\$17	\$12	\$12	0	0	\$41	0	0	0	0
9	\$103	\$0	\$54	\$18	\$13	\$12	0	0	\$42	0	0	0	0
10	\$106	\$0	\$56	\$18	\$13	\$13	0	0	\$43	0	0	0	0
11	\$110	\$0	\$58	\$19	\$13	\$13	0	0	\$44	0	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	0
14	\$120	\$0	\$63	\$21	\$15	\$14	0	0	\$48	0	0	0	0
15	\$123	\$0	\$65	\$21	\$15	\$15	0	0	\$50	0	0	0	0
16	\$127	\$0	\$67	\$22	\$16	\$15	0	0	\$51	0	0	0	0
17	\$131	\$0	\$69	\$22	\$16	\$15	0	0	\$53	0	0	0	0
18	\$135	\$0	\$71	\$23	\$17	\$16	0	0	\$54	0	0	0	0
19	\$139	\$0	\$73	\$24	\$17	\$16	0	0	\$56	0	0	0	0
20	\$143	\$0	\$75	\$25	\$18	\$17	0	0	\$58	0	0	0	0

Present Value of Benefits \$383 Present Value of Costs \$26

Benefit/Cost Ratio	14.96
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TABLE I
Growth of *C. elegans*

TABLE II

TABLES

Participants Cost Effectiveness Test Data

	Analysis Start Year: 1998	Number of Years:	20	Electric Rate Number
Gas Program:	Residential Proprietary Gas Rates Number			
Gas Measure:	Distribution Program			
All Costs in 1998 dollars				
Allocation:	\$79			
Gas Utility:	Chesapeake Utilities Corporation			
I. Installed Cost Data				
				Tampa Electric Co.
				Rancho Electric
				TV Installed Cost Data
1. Equipment	\$600			\$500
2. Installation	182			197
Total Cost:	\$782			\$697
3. Utility Rebate	\$75			\$0
4. Other Rebate				
II. Operating Data				
1. Energy Factor	0.72			
Therms Consumed	Winter	Summer	Total	
2. Standard Rate	18.0	18.0	32.0	
3. Seasonal Rate			0.0	
Total	18.0	18.0	32.0	
4. Electric Consumption in KWH				
5. OAM (excluding energy)	\$0			
Gas Rebill:	30.43128			\$12
6. Basis, Winter	30.43128			\$0
7. Basis, Summer	30.43128			19
8. Seasonal, Winter				0
9. Seasonal, Summer				
10. PQA, Winter	0.38077			\$0.0728
11. PQA, Summer	0.38077			\$0.0000
12. Taxes & Fees	13.67%			\$0.0000
13. Customer Chg	\$6.50			13.67%
14. Ratio of Therms Consumed				
to Total	7.57%			
15. Average Use	19			
III. Common Gas & Electric Data				
1. Discount Rate	8.65%			

DOCKET NO.

EXHIBIT C
PAGE 24 of 25

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
	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 \$262 Present Value
of Costs \$37

Benefit/Cost Ratio	7.60
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TABLE 1
Bureau 400 Credit
Report

Year	Total		Type 1		Type 2	
	Cost	Churn	Churn	Cost	Churn	Cost
1	\$6,277.00	687	13.67%	\$67	687	\$67
2	\$6,277.00	687	13.67%	\$67	687	\$67
3	\$6,277.00	687	13.67%	\$67	687	\$67
4	\$6,277.00	687	13.67%	\$67	687	\$67
5	\$6,277.00	687	13.67%	\$67	687	\$67
6	\$6,277.00	687	13.67%	\$67	687	\$67
7	\$6,277.00	687	13.67%	\$67	687	\$67
8	\$6,277.00	687	13.67%	\$67	687	\$67
9	\$6,277.00	687	13.67%	\$67	687	\$67
10	\$6,277.00	687	13.67%	\$67	687	\$67
11	\$6,277.00	687	13.67%	\$67	687	\$67
12	\$6,277.00	687	13.67%	\$67	687	\$67
13	\$6,277.00	687	13.67%	\$67	687	\$67
14	\$6,277.00	687	13.67%	\$67	687	\$67
15	\$6,277.00	687	13.67%	\$67	687	\$67
16	\$6,277.00	687	13.67%	\$67	687	\$67
17	\$6,277.00	687	13.67%	\$67	687	\$67
18	\$6,277.00	687	13.67%	\$67	687	\$67
19	\$6,277.00	687	13.67%	\$67	687	\$67
20	\$6,277.00	687	13.67%	\$67	687	\$67

TABLE 2
Customer Segmentation - Type

Year	Type 1		Type 2		Type 3	
	Cost	Churn	Churn	Cost	Churn	Cost
1	\$6,277.00	32	13.67%	\$67	32	\$67
2	\$6,277.00	32	13.67%	\$67	32	\$67
3	\$6,277.00	32	13.67%	\$67	32	\$67
4	\$6,277.00	32	13.67%	\$67	32	\$67
5	\$6,277.00	32	13.67%	\$67	32	\$67
6	\$6,277.00	32	13.67%	\$67	32	\$67
7	\$6,277.00	32	13.67%	\$67	32	\$67
8	\$6,277.00	32	13.67%	\$67	32	\$67
9	\$6,277.00	32	13.67%	\$67	32	\$67
10	\$6,277.00	32	13.67%	\$67	32	\$67
11	\$6,277.00	32	13.67%	\$67	32	\$67
12	\$6,277.00	32	13.67%	\$67	32	\$67
13	\$6,277.00	32	13.67%	\$67	32	\$67
14	\$6,277.00	32	13.67%	\$67	32	\$67
15	\$6,277.00	32	13.67%	\$67	32	\$67
16	\$6,277.00	32	13.67%	\$67	32	\$67
17	\$6,277.00	32	13.67%	\$67	32	\$67
18	\$6,277.00	32	13.67%	\$67	32	\$67
19	\$6,277.00	32	13.67%	\$67	32	\$67
20	\$6,277.00	32	13.67%	\$67	32	\$67

TABLE 3
One Customer Charge

Year	Type 1		Type 2		Type 3	
	Cost	Churn	Churn	Cost	Churn	Cost
1	\$71.00	32	13.67%	\$67	32	\$67
2	\$71.00	32	13.67%	\$67	32	\$67
3	\$71.00	32	13.67%	\$67	32	\$67
4	\$71.00	32	13.67%	\$67	32	\$67
5	\$71.00	32	13.67%	\$67	32	\$67
6	\$71.00	32	13.67%	\$67	32	\$67
7	\$71.00	32	13.67%	\$67	32	\$67
8	\$71.00	32	13.67%	\$67	32	\$67
9	\$71.00	32	13.67%	\$67	32	\$67
10	\$71.00	32	13.67%	\$67	32	\$67
11	\$71.00	32	13.67%	\$67	32	\$67
12	\$71.00	32	13.67%	\$67	32	\$67
13	\$71.00	32	13.67%	\$67	32	\$67
14	\$71.00	32	13.67%	\$67	32	\$67
15	\$71.00	32	13.67%	\$67	32	\$67
16	\$71.00	32	13.67%	\$67	32	\$67
17	\$71.00	32	13.67%	\$67	32	\$67
18	\$71.00	32	13.67%	\$67	32	\$67
19	\$71.00	32	13.67%	\$67	32	\$67
20	\$71.00	32	13.67%	\$67	32	\$67

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: Winter Heater	40 gallons	Residential Options: Gas/Polymer	Electric Rate Number: Electric	69/gallon
Allocation:		Electric Utility:	Tampa Electric Co.	
Gas Utility:	Chesapeake Utilities Corporation	IV. New Customer Installation Costs		\$
		1. Supply Main		0
		2. Development Main		0
		3. Service		0
		4. Meter		0
		Total Cost: Cost		\$0
		5. Utility Allowance		
		6. Program Cost		\$150
		7. New Customer Admin. Cost \$/month		\$15
		8. Main O&M (Percent)		50
		V. Gas Supply Costs		
		1. Load Profile Type		
		2. Commodity (Annual)		
		3. Winter Multiplier		1.33
		4. Summer Multiplier		1.00
		5. Transportation, Capacity, Peaking and Balancing Cost		0.00175
		System Strikethrough		
		VI. Therms Consumed		
		1. Energy Factor	None	
		2. Annual Gas Therms		
		VII. Therms Displaced (not in VI.2)		
		1. Energy Factor		
		Therms Displaced		
		2. Standard Rate		
		Total		
		VIII. Therms Per Hour @ Utility Receipt Point		
		1. Standard Rate		
		2. Consumed		
		3. Consumed New		
		4. Consumed Existing		
		5. Replaced		
		1. Discount Rate		
		8.65%		

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Avoid 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 Table 6	Program & Allowance Cost Table 7	Total Columns 6 thru 10
1	2	3	4	5	6	7	8	9	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

Year	Therms	Basis Ratio	POA Rate	Total Rate	Therms*	5/2	4	3	2	1
1998	160	0.43129	0.30977	0.62103	1.38					
1999	160	0.44420	0.40140	0.84568	1.42					
2000	160	0.46752	0.41250	0.87103	1.46					
2001	160	0.47125	0.42561	0.86716	1.51					
2002	160	0.48539	0.43869	0.92407	1.55					
2003	160	0.49959	0.45165	0.95179	1.60					
2004	160	0.51465	0.46540	0.89035	1.65					
2005	160	0.52040	0.47036	1.00878	1.70					
2006	160	0.54831	0.49374	1.04005	1.75					
2007	160	0.56270	0.50056	1.07125	1.80					
2008	160	0.57958	0.52381	1.10339	1.85					
2009	160	0.58698	0.53953	1.13649	1.91					
2010	160	0.61467	0.59571	1.17069	1.97					
2011	160	0.63332	0.57239	1.20571	2.03					
2012	160	0.65232	0.58956	1.24168	2.09					
2013	160	0.67149	0.60724	1.27913	2.15					
2014	160	0.68920	0.62546	1.31751	2.21					
2015	160	0.71201	0.64422	1.35703	2.28					
2016	160	0.73419	0.66355	1.39774	2.35					
2017	160	0.75622	0.68346	1.43969	2.42					

Table 5

Year	Therms	Winter Therms	Summer Therms	Commodity Gas Supply Cost	Transep Capacity	Peakload & Fuel Cost	Winter Multiplier	Gas Supply Cost	6	8	375-B-4-27977
1998	160	160	160	0.22582	0.64118	0.22582	1.33	0.0430	1.33	1.34	\$62
1999	160	160	160	0.23118	0.64118	0.23118	1.33	0.0443	1.33	1.35	\$65
2000	160	160	160	0.23867	0.64118	0.23867	1.33	0.0456	1.33	1.37	\$67
2001	160	160	160	0.24659	0.64118	0.24659	1.33	0.0470	1.33	1.39	\$69
2002	160	160	160	0.25330	0.64118	0.25330	1.33	0.0484	1.33	1.41	\$71
2003	160	160	160	0.26050	0.64118	0.26050	1.33	0.0498	1.33	1.43	\$72
2004	160	160	160	0.26867	0.64118	0.26867	1.33	0.05113	1.33	1.44	\$74
2005	160	160	160	0.27698	0.64118	0.27698	1.33	0.05239	1.33	1.46	\$76
2006	160	160	160	0.28511	0.64118	0.28511	1.33	0.05415	1.33	1.48	\$78
2007	160	160	160	0.29356	0.64118	0.29356	1.33	0.05611	1.33	1.50	\$80
2008	160	160	160	0.30224	0.64118	0.30224	1.33	0.05811	1.33	1.52	\$82
2009	160	160	160	0.31115	0.64118	0.31115	1.33	0.05978	1.33	1.54	\$84
2010	160	160	160	0.32049	0.64118	0.32049	1.33	0.06165	1.33	1.55	\$85
2011	160	160	160	0.33005	0.64118	0.33005	1.33	0.06313	1.33	1.57	\$87
2012	160	160	160	0.34044	0.64118	0.34044	1.33	0.06532	1.33	1.59	\$89
2013	160	160	160	0.35060	0.64118	0.35060	1.33	0.06850	1.33	1.61	\$92
2014	160	160	160	0.36111	0.64118	0.36111	1.33	0.06770	1.33	1.63	\$94
2015	160	160	160	0.37210	0.64118	0.37210	1.33	0.06990	1.33	1.65	\$97
2016	160	160	160	0.38311	0.64118	0.38311	1.33	0.07111	1.33	1.67	\$99
2017	160	160	160	0.39446	0.64118	0.39446	1.33	0.07322	1.33	1.70	\$102

Table 2

Year	Customer Change	Annual Cust. Chg.	Ratio of Therms Consumed To Total Cust. Chg.	472
1998	6.50	78	39.72%	
1999	6.70	80	39.72%	
2000	6.90	83	39.72%	
2001	7.10	85	39.72%	
2002	7.32	88	39.72%	
2003	7.54	90	39.72%	
2004	7.76	92	39.72%	
2005	7.99	96	39.72%	
2006	8.23	99	39.72%	
2007	8.46	102	39.72%	
2008	8.74	105	39.72%	
2009	9.00	108	39.72%	
2010	9.27	111	39.72%	
2011	9.55	115	39.72%	
2012	9.83	118	39.72%	
2013	10.13	122	39.72%	
2014	10.43	125	39.72%	
2015	10.74	129	39.72%	
2016	11.07	133	39.72%	
2017	11.40	137	39.72%	

Participants Cost Effectiveness Test Data

Gas Program	Analysis Start Year	1998	Number of Years	20
Gas Program	Residential Water Heater	Gas Rate Number	Electric Rate Number	
Gas Program	Water Heater	40 gallons	Electric Options Gas Type:	
Allotment	\$150		Electric Resistance Water Heater 60 gallon	
Gas Utility	Chesapeake Utilities Corporation		Electric	
I. Installed Cost Data				
1. Equipment		\$2222		\$2333
2. Installation		54		71
Total Instl. Cost		\$2276		\$2304
3. Utility Rebate				
4. Other Rebates				
Total Cost, Cost		\$2276		\$2304
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		
III. Gas Rates				
6. Basis, Winter		\$0.43125	Rate	\$0
7. Basis, Summer		\$0.43125		14
8. Seasonal, Winter				0
9. Seasonal, Summer				
10. PDA, Winter		0.38977		10.0725
11. PDA, Summer		0.38977		92.0000
12. Taxes & Fees		13.67%		30.0000
13. Customer Chg		\$8.50		12.67%
14. Ratio of Therms Consumed to Total		39.72%		\$8.265
15. Average Life		12		
IV. Common Gas & Electric Data				
1. Discount Rate				0.05%
V. Therma Dispatched				
1. Energy Factor				1.00
2. Standard Rate				
Total				0.0
VI. Therma Dispatched (not in V. 4.)				
1. Energy Factor				
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			Gas 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
			Table 2	4	5						10	11	12	13
1	2	3												
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
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TABLE 1

Year	Cost	Annual	Total	Cost
1998	\$6,677.04	1,332	13,674	\$6,677
1999	\$6,677.04	1,332	13,674	\$6,677
2000	\$6,677.04	1,332	13,674	\$6,677
2001	\$6,677.04	1,332	13,674	\$6,677
2002	\$6,677.04	1,332	13,674	\$6,677
2003	\$6,677.04	1,332	13,674	\$6,677
2004	\$6,677.04	1,332	13,674	\$6,677
2005	\$6,677.04	1,332	13,674	\$6,677
2006	\$6,677.04	1,332	13,674	\$6,677
2007	\$6,677.04	1,332	13,674	\$6,677
2008	\$6,677.04	1,332	13,674	\$6,677
2009	\$6,677.04	1,332	13,674	\$6,677
2010	\$6,677.04	1,332	13,674	\$6,677
2011	\$6,677.04	1,332	13,674	\$6,677
2012	\$6,677.04	1,332	13,674	\$6,677
2013	\$6,677.04	1,332	13,674	\$6,677
2014	\$6,677.04	1,332	13,674	\$6,677
2015	\$6,677.04	1,332	13,674	\$6,677
2016	\$6,677.04	1,332	13,674	\$6,677
2017	\$6,677.04	1,332	13,674	\$6,677

TABLE 2

Year	Cost	Annual	Total	Cost
1998	\$6,677.04	100	13,674	\$6,677
1999	\$6,677.04	100	13,674	\$6,677
2000	\$6,677.04	100	13,674	\$6,677
2001	\$6,677.04	100	13,674	\$6,677
2002	\$6,677.04	100	13,674	\$6,677
2003	\$6,677.04	100	13,674	\$6,677
2004	\$6,677.04	100	13,674	\$6,677
2005	\$6,677.04	100	13,674	\$6,677
2006	\$6,677.04	100	13,674	\$6,677
2007	\$6,677.04	100	13,674	\$6,677
2008	\$6,677.04	100	13,674	\$6,677
2009	\$6,677.04	100	13,674	\$6,677
2010	\$6,677.04	100	13,674	\$6,677
2011	\$6,677.04	100	13,674	\$6,677
2012	\$6,677.04	100	13,674	\$6,677
2013	\$6,677.04	100	13,674	\$6,677
2014	\$6,677.04	100	13,674	\$6,677
2015	\$6,677.04	100	13,674	\$6,677
2016	\$6,677.04	100	13,674	\$6,677
2017	\$6,677.04	100	13,674	\$6,677

TABLE 3

Year	Cost	Cost	Annual	Total	Cost	Cost	Annual	Total	Cost
1998	\$6,677	\$7	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
1999	\$6,677	\$8	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2000	\$6,677	\$9	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2001	\$6,677	\$10	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2002	\$6,677	\$11	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2003	\$6,677	\$12	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2004	\$6,677	\$13	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2005	\$6,677	\$14	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2006	\$6,677	\$15	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2007	\$6,677	\$16	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2008	\$6,677	\$17	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2009	\$6,677	\$18	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2010	\$6,677	\$19	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2011	\$6,677	\$20	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2012	\$6,677	\$21	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2013	\$6,677	\$22	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2014	\$6,677	\$23	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2015	\$6,677	\$24	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2016	\$6,677	\$25	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677
2017	\$6,677	\$26	\$100	\$13,674	\$6,677	\$100	\$100	\$13,674	\$6,677

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	1990 dollars	Analysis Start Year	1990	Number of Years	20	Electric Rate Number	
Gas Program:	Natural Gas Space Conditioning (or Residential Home) B	Gas Rate Number					
Gas Measure:	Thermal Equivalent Unit	Alternate Options:	3.5 Ton Heat Pump				
Address:	\$1200	Electric Utility:	Tampa Electric				
Gas Utilty:	Cheapeake Utilities Corporation	IV. New Customer Installation Costs					
			\$	\$	\$		
1. Avoided Meter Removal Cost	0	1. Supply Main	25				
2. Avoided Cut & Cap Cost	0	2. Development Main	114				
Total Costs	0	3. Service	364				
		4. Meter	205				
		Total Cust. Cost	725				
		V. Utility Allowance					
		6. Program Cost	48				
		7. New Customer Admin. Cost \$/Month	2				
		8. Sales OA&M (Percent)	2.04%				
		V. Gas Supply Cost					
		1. Load Profile Type					
		2. Commodity (Annual)					
		3. Winter Multiplier					
		4. Summer Multiplier					
		5. Transportation, Capacity, Peaking and Balancing Cost	0.04175				
		VI. Thermal Shrinkage					
Therms Consumed		Winter	Summer	Total			
2 Standard Rate	112	210	322				
3 Seasonal Rate		579	579				
Total	112	789	801				
Gas Rates		Rate					
6 Base, Winter		0.43126					
7 Base, Summer		0.43126					
8 Seasonal, Winter							
9 Seasonal, Summer							
10 PGA, Winter							
11 PGA, Summer							
12 Taxes & Fees							
13 Customer Chg		\$6.50					
14 Ratio of Therms Consumed to Total		1					
15 Average Life							
III Common Gas & Electric Data							
1. Discount Rate		8.05%					

Rate Impact Measure Test Data

	Consumed Conserved Displaced Gas Therms Table 1	Gas Customer Charge Table 2	Total Columns 2 thru 3	Carrying Chg. On Main, Svc. & Meter Table 3	New Customer Admin. & Facilities O&M Table 4	Gas Supply Cost Table 5	Program & Allowance Cost	Cooling Total Columns 6 thru 9
1	2	3	4	5	6	7	8	9
\$	\$	\$	\$	\$	\$	\$	\$	\$
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 \$8,044Present Value
of Costs \$4,345Benefit/Cost
Ratio 1.85

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Year	Annual		Rate of Return		Rate of Return Compared To Total CPI, %
	Consumer Price Index	Change	Consumer Price Index	Change	
1955	1.55	1.55	1.55	1.55	1.55
1956	8.70	8.70	8.34	8.34	8.34
1957	8.80	1.15	8.25	8.25	8.25
1958	7.10	-1.70	7.79	8.79	8.79
1959	7.30	2.70	8.34	8.34	8.34
1960	7.30	0.00	8.53	8.53	8.53
1961	7.30	0.00	8.61	8.61	8.61
1962	8.25	8.25	104.77	104.77	104.77
1963	7.30	-1.20	109.37	109.37	109.37
1964	9.20	2.00	115.21	115.21	115.21
1965	9.20	0.00	114.50	114.50	114.50
1966	8.63	-5.63	117.96	117.96	117.96
1967	10.13	14.62	124.82	124.82	124.82
1968	10.42	3.00	128.17	128.17	128.17
1969	10.74	3.00	128.82	128.82	128.82
1970	11.67	8.33	132.79	132.79	132.79
1971	11.66	-0.11	136.77	136.77	136.77

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Year	Industry	Category	Revenue	Units	Avg Cost		Customer	Rate of Return	Carrying Chg	Holding Inv.
					Cost	Profit				
2000	Automotive	Parts	\$120	100	\$100	\$20	100	10%	\$5	\$5
2001	Automotive	Parts	\$130	110	\$110	\$20	110	10%	\$5	\$5
2002	Automotive	Parts	\$140	120	\$120	\$20	120	10%	\$5	\$5
2003	Automotive	Parts	\$150	130	\$130	\$20	130	10%	\$5	\$5
2004	Automotive	Parts	\$160	140	\$140	\$20	140	10%	\$5	\$5
2005	Automotive	Parts	\$170	150	\$150	\$20	150	10%	\$5	\$5
2006	Automotive	Parts	\$180	160	\$160	\$20	160	10%	\$5	\$5
2007	Automotive	Parts	\$190	170	\$170	\$20	170	10%	\$5	\$5
2008	Automotive	Parts	\$200	180	\$180	\$20	180	10%	\$5	\$5
2009	Automotive	Parts	\$210	190	\$190	\$20	190	10%	\$5	\$5
2010	Automotive	Parts	\$220	200	\$200	\$20	200	10%	\$5	\$5
2011	Automotive	Parts	\$230	210	\$210	\$20	210	10%	\$5	\$5
2012	Automotive	Parts	\$240	220	\$220	\$20	220	10%	\$5	\$5
2013	Automotive	Parts	\$250	230	\$230	\$20	230	10%	\$5	\$5
2014	Automotive	Parts	\$260	240	\$240	\$20	240	10%	\$5	\$5
2015	Automotive	Parts	\$270	250	\$250	\$20	250	10%	\$5	\$5
2016	Automotive	Parts	\$280	260	\$260	\$20	260	10%	\$5	\$5
2017	Automotive	Parts	\$290	270	\$270	\$20	270	10%	\$5	\$5

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Year	Firm	Community Data			Financial Data		
		Revenue	Net Income	Employees	Debt/Capital	Net Profit Margin	Gross Margin
2015	ABC	\$100	\$10	100	0.50	1.00	1.20
2016	ABC	\$110	\$11	110	0.45	1.00	1.20
2017	ABC	\$120	\$12	120	0.40	1.00	1.20
2018	ABC	\$130	\$13	130	0.35	1.00	1.20
2019	ABC	\$140	\$14	140	0.30	1.00	1.20
2020	ABC	\$150	\$15	150	0.25	1.00	1.20
2021	ABC	\$160	\$16	160	0.20	1.00	1.20
2022	ABC	\$170	\$17	170	0.15	1.00	1.20
2023	ABC	\$180	\$18	180	0.10	1.00	1.20
2024	ABC	\$190	\$19	190	0.05	1.00	1.20
2025	ABC	\$200	\$20	200	0.00	1.00	1.20
2026	ABC	\$210	\$21	210	-0.05	1.00	1.20
2027	ABC	\$220	\$22	220	-0.10	1.00	1.20
2028	ABC	\$230	\$23	230	-0.15	1.00	1.20
2029	ABC	\$240	\$24	240	-0.20	1.00	1.20
2030	ABC	\$250	\$25	250	-0.25	1.00	1.20
2031	ABC	\$260	\$26	260	-0.30	1.00	1.20
2032	ABC	\$270	\$27	270	-0.35	1.00	1.20
2033	ABC	\$280	\$28	280	-0.40	1.00	1.20
2034	ABC	\$290	\$29	290	-0.45	1.00	1.20
2035	ABC	\$300	\$30	300	-0.50	1.00	1.20
2036	ABC	\$310	\$31	310	-0.55	1.00	1.20
2037	ABC	\$320	\$32	320	-0.60	1.00	1.20
2038	ABC	\$330	\$33	330	-0.65	1.00	1.20
2039	ABC	\$340	\$34	340	-0.70	1.00	1.20
2040	ABC	\$350	\$35	350	-0.75	1.00	1.20
2041	ABC	\$360	\$36	360	-0.80	1.00	1.20
2042	ABC	\$370	\$37	370	-0.85	1.00	1.20
2043	ABC	\$380	\$38	380	-0.90	1.00	1.20
2044	ABC	\$390	\$39	390	-0.95	1.00	1.20
2045	ABC	\$400	\$40	400	-1.00	1.00	1.20
2046	ABC	\$410	\$41	410	-1.05	1.00	1.20
2047	ABC	\$420	\$42	420	-1.10	1.00	1.20
2048	ABC	\$430	\$43	430	-1.15	1.00	1.20
2049	ABC	\$440	\$44	440	-1.20	1.00	1.20
2050	ABC	\$450	\$45	450	-1.25	1.00	1.20
2051	ABC	\$460	\$46	460	-1.30	1.00	1.20
2052	ABC	\$470	\$47	470	-1.35	1.00	1.20
2053	ABC	\$480	\$48	480	-1.40	1.00	1.20
2054	ABC	\$490	\$49	490	-1.45	1.00	1.20
2055	ABC	\$500	\$50	500	-1.50	1.00	1.20
2056	ABC	\$510	\$51	510	-1.55	1.00	1.20
2057	ABC	\$520	\$52	520	-1.60	1.00	1.20
2058	ABC	\$530	\$53	530	-1.65	1.00	1.20
2059	ABC	\$540	\$54	540	-1.70	1.00	1.20
2060	ABC	\$550	\$55	550	-1.75	1.00	1.20
2061	ABC	\$560	\$56	560	-1.80	1.00	1.20
2062	ABC	\$570	\$57	570	-1.85	1.00	1.20
2063	ABC	\$580	\$58	580	-1.90	1.00	1.20
2064	ABC	\$590	\$59	590	-1.95	1.00	1.20
2065	ABC	\$600	\$60	600	-2.00	1.00	1.20
2066	ABC	\$610	\$61	610	-2.05	1.00	1.20
2067	ABC	\$620	\$62	620	-2.10	1.00	1.20
2068	ABC	\$630	\$63	630	-2.15	1.00	1.20
2069	ABC	\$640	\$64	640	-2.20	1.00	1.20
2070	ABC	\$650	\$65	650	-2.25	1.00	1.20
2071	ABC	\$660	\$66	660	-2.30	1.00	1.20
2072	ABC	\$670	\$67	670	-2.35	1.00	1.20
2073	ABC	\$680	\$68	680	-2.40	1.00	1.20
2074	ABC	\$690	\$69	690	-2.45	1.00	1.20
2075	ABC	\$700	\$70	700	-2.50	1.00	1.20
2076	ABC	\$710	\$71	710	-2.55	1.00	1.20
2077	ABC	\$720	\$72	720	-2.60	1.00	1.20
2078	ABC	\$730	\$73	730	-2.65	1.00	1.20
2079	ABC	\$740	\$74	740	-2.70	1.00	1.20
2080	ABC	\$750	\$75	750	-2.75	1.00	1.20
2081	ABC	\$760	\$76	760	-2.80	1.00	1.20
2082	ABC	\$770	\$77	770	-2.85	1.00	1.20
2083	ABC	\$780	\$78	780	-2.90	1.00	1.20
2084	ABC	\$790	\$79	790	-2.95	1.00	1.20
2085	ABC	\$800	\$80	800	-3.00	1.00	1.20
2086	ABC	\$810	\$81	810	-3.05	1.00	1.20
2087	ABC	\$820	\$82	820	-3.10	1.00	1.20
2088	ABC	\$830	\$83	830	-3.15	1.00	1.20
2089	ABC	\$840	\$84	840	-3.20	1.00	1.20
2090	ABC	\$850	\$85	850	-3.25	1.00	1.20
2091	ABC	\$860	\$86	860	-3.30	1.00	1.20
2092	ABC	\$870	\$87	870	-3.35	1.00	1.20
2093	ABC	\$880	\$88	880	-3.40	1.00	1.20
2094	ABC	\$890	\$89	890	-3.45	1.00	1.20
2095	ABC	\$900	\$90	900	-3.50	1.00	1.20
2096	ABC	\$910	\$91	910	-3.55	1.00	1.20
2097	ABC	\$920	\$92	920	-3.60	1.00	1.20
2098	ABC	\$930	\$93	930	-3.65	1.00	1.20
2099	ABC	\$940	\$94	940	-3.70	1.00	1.20
2100	ABC	\$950	\$95	950	-3.75	1.00	1.20
2101	ABC	\$960	\$96	960	-3.80	1.00	1.20
2102	ABC	\$970	\$97	970	-3.85	1.00	1.20
2103	ABC	\$980	\$98	980	-3.90	1.00	1.20
2104	ABC	\$990	\$99	990	-3.95	1.00	1.20
2105	ABC	\$1000	\$100	1000	-4.00	1.00	1.20
2106	ABC	\$1010	\$101	1010	-4.05	1.00	1.20
2107	ABC	\$1020	\$102	1020	-4.10	1.00	1.20
2108	ABC	\$1030	\$103	1030	-4.15	1.00	1.20
2109	ABC	\$1040	\$104	1040	-4.20	1.00	1.20
2110	ABC	\$1050	\$105	1050	-4.25	1.00	1.20
2111	ABC	\$1060	\$106	1060	-4.30	1.00	1.20
2112	ABC	\$1070	\$107	1070	-4.35	1.00	1.20
2113	ABC	\$1080	\$108	1080	-4.40	1.00	1.20
2114	ABC	\$1090	\$109	1090	-4.45	1.00	1.20
2115	ABC	\$1100	\$110	1100	-4.50	1.00	1.20
2116	ABC	\$1110	\$111	1110	-4.55	1.00	1.20
2117	ABC	\$1120	\$112	1120	-4.60	1.00	1.20
2118	ABC	\$1130	\$113	1130	-4.65	1.00	1.20
2119	ABC	\$1140	\$114	1140	-4.70	1.00	1.20
2120	ABC	\$1150	\$115	1150	-4.75	1.00	1.20
2121	ABC	\$1160	\$116	1160	-4.80	1.00	1.20
2122	ABC	\$1170	\$117	1170	-4.85	1.00	1.20
2123	ABC	\$1180	\$118	1180	-4.90	1.00	1.20
2124	ABC	\$1190	\$119	1190	-4.95	1.00	1.20
2125	ABC	\$1200	\$120	1200	-5.00	1.00	1.20
2126	ABC	\$1210	\$121	1210	-5.05	1.00	1.20
2127	ABC	\$1220	\$122	1220	-5.10	1.00	1.20
2128	ABC	\$1230	\$123	1230	-5.15	1.00	1.20
2129	ABC	\$1240	\$124	1240	-5.20	1.00	1.20
2130	ABC	\$1250	\$125	1250	-5.25	1.00	1.20
2131	ABC	\$1260	\$126	1260	-5.30	1.00	1.20
2132	ABC	\$1270	\$127	1270	-5.35	1.00	1.20
2133	ABC	\$1280	\$128	1280	-5.40	1.00	1.20
2134	ABC	\$1290	\$129	1290	-5.45	1.00	1.20
2135	ABC	\$1300	\$130	1300	-5.50	1.00	1.20
2136	ABC	\$1310	\$131	1310	-5.55	1.00	1.20
2137	ABC	\$1320	\$132	1320	-5.60	1.00	1.20
2138	ABC	\$1330	\$133	1330	-5.65	1.00	1.20
2139	ABC	\$1340	\$134	1340	-5.70	1.00	1.20
2140	ABC	\$1350	\$135	1350	-5.75	1.00	1.20
2141	ABC	\$1360	\$136	1360	-5.80	1.00	1.20
2142	ABC	\$1370	\$137	1370	-5.85	1.00	1.20
2143	ABC	\$1380	\$138	1380	-5.90	1.00	1.20
2144	ABC	\$1390	\$139	1390	-5.95	1.00	1.20
2145	ABC	\$1400	\$140	1400	-6.00	1.00	1.20
2146	ABC	\$1410	\$141	1410	-6.05	1.00	1.20
2147	ABC	\$1420	\$142	1420	-6.10	1.00	1.20
2148	ABC	\$1430	\$143	1430	-6.15	1.00	1.20
2149	ABC	\$1440	\$144	1440	-6.20	1.00	1.20
2150	ABC	\$1450	\$145	1450	-6.25	1.00	1.20
2151	ABC	\$1460	\$146	1460	-6.30	1.00	1.20
2152	ABC	\$1470	\$147	1470	-6.35	1.00	1.20
2153	ABC	\$1480	\$148	1480	-6.40	1.00	1.20
2154	ABC	\$1490	\$149	1490	-6.45	1.00	1.20
2155	ABC	\$1500	\$150	1500	-6.50	1.00	1.20
2156	ABC	\$1510	\$151	1510	-6.55	1.00	1.20
2157	ABC	\$1520	\$152	1520	-6.60	1.00	1.20
2158	ABC	\$1530	\$153	1530	-6.65	1.00	1.20
2159	ABC	\$1540	\$154	1540	-6.70	1.00	1.20
2160	ABC	\$1550	\$155	1550	-6.75	1.00	1.20
2161	ABC	\$1560	\$156	1560	-6.80	1.00	1.20
2162	ABC	\$1570	\$157	1570	-6.85	1.00	1.20
2163	ABC	\$1580	\$158	1580	-6.90	1.00	1.20
2164	ABC	\$1590	\$159	1590	-6.95	1.00	1.20
2165	ABC	\$1600	\$160	1600	-7.00	1.00	1.20
2166	ABC	\$1610	\$161	1610	-7.05	1.00	1.20
2167	ABC	\$1620	\$162	1620	-7.10	1.00	1.20
2168	ABC	\$1630	\$163	1630	-7.15	1.00	1.20
2169	ABC	\$1640	\$164	1640	-7.20	1.00	1.20
2170	ABC	\$1650	\$165	1650	-7.25	1.00	1.20
2171	ABC	\$1660	\$166	1660	-7.30	1.00	1.20
2172	ABC	\$1670	\$167	1670	-7.35	1.00	1.20
2173	ABC	\$1680	\$168	1680	-7.40	1.00	1.20
2174	ABC	\$1690	\$169	1690	-7.45	1.00	1.20
2175	ABC	\$1700	\$170	1700	-7.50	1.00	1.20
2176	ABC	\$1710	\$171	1710	-7.55	1.00	1.20
2177	ABC	\$1720	\$172	1720	-7.60	1.00	1.20
2178	ABC	\$1730	\$173	1730	-7.65	1.00	1.20
2179	ABC	\$1740	\$174	1740	-7.70	1.00	1.20
2180	ABC	\$1750	\$175	1750	-7.75	1.00	1.20
2181	ABC	\$1760	\$176	1760	-7.80	1.00	1.20
2182	ABC	\$1770	\$177	1770	-7.85	1.00	1.20
2183	ABC	\$1780	\$178	1780	-7.90	1.00	1.20
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Participants Cost Effectiveness Test Data

Gas Program:	All Costs in 1998 dollars	Analysis Start Year:	1998	Number of Years:	20	Electric Rate Number
Gas Measure:	Natural Gas Space Conditioning for Residential Homes	Gas Rate Number		Alternative Option:	1.9 Ton Heat Pump	
Gas Utility:	Christopher Utilities Corporation	All Fuel Type:		Electric Utility:	Tampa Electric Co.	
I. Installed Cost Data				IV. Installed Cost Data		
1. Equipment Installation	\$4,150			1. Equipment Installation	\$1,750	
2. Installation	2,846			2. Installation	1,275	
Total Cost, Cost	\$6,996			Total Cost, Cost	\$3,025	
2. Utility Rebate	\$1,200			3. Utility Allowance	\$0	
4. Other Rebate				4. Other Allowance		
III. Operating Data				V. Energy Consumed Data		
1. Energy Factor				1. Energy Factor	Now	Existing
Therms Consumed	Winter	Summer	Total	2. Annual KWH	14,912	14,912
2. Standard Rate	112	210	322	3. Annual Oil Gallons	0	0
3. Seasonal Rate	0	579	579	4. Annual Gas Therms	0	0
Total	112	789	801	5. Diversified KW		
4. Electric Consumption in KWH	900			6. Billing KW		
5. OAM (excluding energy)	\$150			7. OAM (including energy)	\$17	
Gas Rates	Rate			8. Monthly Utility Incentive	50	
6. Base, Winter	\$0.43126			9. Average Life in Yrs	12	
7. Base, Summer	\$0.43126			10. Existing Remaining Life in Yrs	0	
8. Seasonal, Winter				11. Electric Rate per KWH	\$0.0728	
9. Seasonal, Summer				12. Electric Rate per KW, Winter	\$0.0000	
10. PQA, Winter	0.21563			13. Electric Rate per KW, Summer	\$0.0000	
11. PQA, Summer	0.28977			14. Electric Taxes & Fees	13.67%	
12. Taxes & Fees	13.67%			15. Customer Chg	\$0.35	
13. Customer Chg	\$4.50			14. Ratio of Therms Consumed to Total		
15. Average Life	20			15. Average Life	100.00%	
III. Common Gas & Electric Data				III. Therms Displaced		
1. Discount Rate	8.65%			2. Standard Rate	0.0	

PARTICIPANTS COST EFFECTIVE RESULTS

Year	Electric KWH Cost Table 1	No. 2 Fuel Oil	Consumed		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
			-Conserved	-Displaced								
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

Present Value
of Costs

Benefit/Cost Ratio	1.38
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TABLE I

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Table 3

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

DOCKET NO. EX-9-BIT F PAGE 2 of 7

All Costs in		1993 dollars.	Number of Years:	20
Gas Program:		Natural Gas Spaces Conditioning	Analysis Start Year: 1993	Electric Rate Number
Gas Source:		Electric Utilities	Gas Rate Number	
Allocation:	SERETON			
Gas Utility:	Cheapeake Utilities Corporation			
1. Avoided Meter Removal Cost	\$ 0			
2. Avoided Cut & Cap Cost	\$ 0			
Total Costs	\$ 0			
II. Operating Delta				
1. Energy Factor				
Therms Consumed	Winter	Summer	Total	
2. Standard Rate	\$2,850	\$2,850	\$2,850	
3. Seasonal Rate	\$2,850	\$2,850	\$2,850	
Total	\$2,850	\$2,850	\$2,850	
Cost Rates	Rate			
6. Base, Winter	0.97248			
7. Base, Summer	0.97248			
8. Seasonal, Winter				
9. Seasonal, Summer				
10. PQA, Winter	0.38977			
11. PQA, Summer	0.48977			
12. Taxes & Fees	12.67%			
13. Customer Chg	40			
14. Ratio of Therms Consumed to Total	1			
15. Average Life	20			
III. Common Gas & Electric Data				

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 \$681,997
of BenefitsPresent Value \$469,909
of Costs

Benefit/Cost Ratio	1.45
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Participants Cost Effectiveness Test Data

DOCKET NO. DOD-98-17 F
Page 5 of 7

Gas Program		Natural Gas Space Conditioning	Gas Rate Number	Electric Rate Number
Gas Utilizing:		Two Stage Electric Heater		
Gas Utilizing:		Chesapeake Utilities Corporation		
I	Installed Cost Data			
1	Equipment	\$250,000		
2	Installation	40,000		
Total	Cost	\$290,000		
3.	Utility Rebates	\$25,000		
4.	Other Rebates			
II.	Operating Data			
1.	Energy Factor			
Therma Consumed	Winter	Summer	Total	
2.	Seasonal Rates	\$2,850	\$2,850	125,700
3.	Seasonal Rates			
Total	\$2,850	\$2,850	125,700	
4.	Oil Consumption	3,000		
5.	CAM (excluding energy)	\$5,550		
Gas Rates		Rates		
6.	Base, Winter	\$0.07348		
7.	Base, Summer	\$0.07348		
8.	Seasonal, Winter			
B.	Seasonal, Summer			
9.	PQA, Winter	0.26977		
10.	PQA, Summer	0.26977		
11.	Taxes & Fees	13.87%		
12.	Customer Org	\$40.00		
13.	Ratio of Therma Consumed to Total	100.00%		
14.	Average Life	20		
III	Common Gas & Electric Data			
1.	Therma Displaced			
2.	Standard Rate			
V.	Therma Displaced			
1.	Energy Factor			
2.	Standard Rate			
Total				

PARTICIPANTS COST EFFECTIVE RESULTS

DOCKET NO.

EXHIBIT F
PAGE 6 of 7

Year	Electric	Consumed			Gas			Gas			Total	Alternate	Gas	Total
	KWH Cost	Motor Oil	-Conserved	Alternate	Gas Appliance	Gas Appliance	Customer Charge	Gas Rebate	Alternate Appliance	Benefits 2-3-4+5	Appliance Installed Cost	Appliance Installed Cost	Cost 12-11	
	Table 1	Table 2			Table 3				-6-7+8-9					
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 \$88,148
of Benefits

Present Value \$73,297
of Costs

Benefit/Cost Ratio	1.20
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Year	Monetary Unit	Amount CNY (Unit: CNY)
1998	1000	8460.00
1998	500	4230.00
1998	200	1811.20
1998	100	846.00
2000	1000	8693.20
2000	500	4348.44
2000	200	1869.22
2000	100	869.22
2001	1000	8524.81
2001	500	4262.41
2001	200	1846.24
2001	100	846.24
2002	1000	8462.20
2002	500	4231.10
2002	200	1846.00
2002	100	846.00
2004	1000	8476.37
2004	500	4238.18
2004	200	1873.16
2004	100	847.16
2005	1000	846.19
2005	500	4230.34
2005	200	1846.00
2005	100	846.00
2007	1000	8523.20
2007	500	4261.98
2007	200	1852.00
2007	100	852.00
2008	1000	8694.48
2008	500	4347.24
2008	200	1869.22
2008	100	869.22
2009	1000	8694.43
2009	500	4347.21
2009	200	1869.21
2009	100	869.21
2010	1000	8694.37
2010	500	4347.19
2010	200	1869.19
2010	100	869.19
2011	1000	8726.34
2011	500	4351.73
2011	200	1872.34
2011	100	872.34
2012	1000	8743.22
2012	500	4351.73
2012	200	1874.22
2012	100	874.22
2013	1000	8743.22
2013	500	4351.73
2013	200	1874.22
2013	100	874.22
2014	1000	8776.29
2014	500	4378.11
2014	200	1887.37
2014	100	887.37
2015	1000	8817.16
2015	500	4385.14
2015	200	1891.16
2015	100	891.16
2016	1000	8817.14
2016	500	4385.14
2016	200	1891.14
2016	100	891.14