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Ansley Watson, Jr. P.O. Box 1531 Tampa, Florida 33601 e-mail: aw@macfar.com

June 26, 2006

VIA FEDEX

Blanca S. Bayo, Director Division of Commission Clerk & Administrative Services Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

060478-EG

Re: Petition for approval of modifications to approved energy conservation programs, by Peoples Gas System

Dear Ms. Bayo:

Enclosed for filing with the Commission on behalf of Peoples Gas System, please find the original and 15 copies of Peoples' petition referenced above.

Please acknowledge your receipt of the enclosures, the date of their filing, and the docket number assigned, on the enclosed copy of this letter, and return the same to me in the enclosed preaddressed envelope.

Thank you for your usual assistance.

Sincerely,

Ansley Watson, Jr.

AWjr/a Enclosures

cc: Mrs. Kandi M. Floyd

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of	0101100
modifications to approved energy) Docket No. 060478-EG
conservation programs, by Peoples	
Gas System	Submitted for Filing:
	6-27-06

PETITION OF PEOPLES GAS SYSTEM FOR APPROVAL OF MODIFICATIONS TO APPROVED ENERGY CONSERVATION PROGRAMS

Peoples Gas System ("Peoples" or the "Company"), by its undersigned attorneys, files this petition for approval of modifications to its energy conservation programs, such modifications to become effective January 1, 2007, and in support of its petition states:

1. The name, address and telephone number of the petitioner are:

Peoples Gas System P. O. Box 2562 Tampa, Florida 33601-2562 (813) 228-4111

2. The names and mailing addresses of the persons to whom notices, orders and correspondence regarding this petition are to be sent are:

Ansley Watson, Jr.
Macfarlane Ferguson & McMullen
P. O. Box 1531
Tampa, Florida 33601-1531

Ms. Brenda Irizarry Regulatory Affairs Peoples Gas System P. O. Box 2562 Tampa, Florida 33601-2562

3. Peoples is a natural gas local distribution company ("LDC") providing sales and transportation delivery of natural gas throughout most of the State of Florida, and is a public utility subject to the Commission's regulatory jurisdiction under Chapter 366, Florida Statutes. It is required by the provisions of the Florida Energy Efficiency and Conservation Act (§366.82(1), Florida Statutes, hereinafter, "FEECA") to have energy

conservation programs approved by the Commission, and its substantial interests will be affected by the Commission's determination on the merits of this petition.

BACKGROUND

- 4. Peoples has had approved energy conservation programs since 1981. The former West Florida Natural Gas Company ("West Florida" or "WFL"), which Peoples acquired by merger effective June 30, 1997, also had approved energy conservation programs at the time it was acquired by Peoples. Since that acquisition, Peoples has offered its own previously approved programs to its customers in areas it serves other than in its West Florida Region, and has offered to customers in the areas formerly served by West Florida (primarily Panama City and Ocala) the West Florida programs that were in effect at the time of Peoples' acquisition of West Florida. Peoples has filed separate data and reports for its West Florida and Non-West Florida Regions since 1997.
- 5. Pursuant to the Commission's rules, the service rates applicable in the areas served by the distribution properties acquired from West Florida remained unchanged until the Company sought in its last full revenue requirements proceeding to make uniform the service rates in all of its service areas, including the West Florida Region. The Commission approved such uniform service rates by its Order No. PSC-03-0038-FOF-GU, issued January 6, 2003 in Docket No. 020384-GU.
- 6. Peoples' conservation programs in its Non-West Florida Region were last approved as cost effective by the Commission's Order No. PSC-97-0042-FOF-GU, issued in Docket No. 960557-GU on January 9, 1997 after the adoption of Rule 25-17.009, *Florida Administrative Code*. The programs in effect in the West Florida Region were last approved by the Commission's Order No. 24536, issued May 15, 1991 in Docket No. 910086-GU.

- 7. The existing approved programs in effect in Peoples' Non-West Florida and West Florida Regions are described below:
 - (a) Residential Home Builder Program. Peoples' administers residential new construction programs in both its Non-West Florida and West Florida Regions. The programs are virtually identical, the only substantive difference being variations in the cash allowances for certain appliances (see chart in paragraph 12). The objective of the home builder programs is to reduce the growth rates of electric consumption, increase the conservation of energy resources and minimize ratepayers' total energy cost. These programs are designed to expand the consumer's options for energy choice in new homes. The incentives offered to builders under these programs are designed to assist in defraying the added cost of gas piping and venting. Participation in the programs is open to any builder or developer of homes who installs energy efficient whole-house gas heating and/or water heating and provides piping and venting connections for a range and clothes drying equipment.
 - (b) Residential Electric Resistance Appliance Replacement Program. Peoples' administers residential appliance replacement programs in both its Non-West Florida and West Florida Regions. The programs are virtually identical, the only substantive differences being variations in the cash allowances for certain appliances (see chart in paragraph 17), and the specific inclusion of oil heating system replacements in the current West Florida program. The appliance replacement programs are designed to reduce the growth rates of electric consumption and optimize the use of existing natural gas facilities by encouraging the replacement of electric resistance appliances in the residential market.

Participation in the programs is open to current residential customers or potential customers who have gas service available and replace their electric water heating, strip central heating, cooking, clothes drying or space heating with energy efficient gas appliances. Cash allowances are offered to defray the additional cost of installing energy efficient natural gas appliances (primarily piping and venting the appliances).

- (c) <u>Gas Water Heater Load Retention Program</u>. Peoples' administers gas water heater retention programs in both its Non-West Florida and West Florida Regions. The programs are identical, including the cash allowance amounts provided in each region. The retention programs are designed to promote the continued use of gas for water heating thereby reducing gas conversions to alternate fuels. Any current customer using gas for water heating can participate in the programs when they replace an existing natural gas appliance with an energy efficient appliance. The allowances help defray the higher first cost of a gas water heater compared to electric, including costs related to upgraded venting, water heater stands and other items that may be necessary to meet current building code requirements.
- (d) Oil Heating Replacement Program. Peoples' administers an oil heating replacement program in its Non-West Florida Region. The program is designed to encourage customers to convert existing oil-burning heating systems to energy efficient natural gas heating so as to discourage those customers from switching to less costly resistance strip heating. Allowances are offered to defray the additional cost of installing gas appliances. As indicated above, this program in the

West Florida Region is combined with the Residential Electric Resistance Appliance Replacement Program.

- (e) <u>Commercial Electric Resistance Appliance Replacement Program.</u>

 Peoples administers commercial appliance replacement programs in both its Non-West Florida and West Florida Regions. The programs are virtually identical, the only substantive difference being variations in the cash allowances (see paragraph 23). The programs are designed to encourage the replacement of electric resistance appliances in commercial establishments by offering allowances to reduce the cost of installing piping, venting and energy efficient natural gas appliances. The program reduces electric demand and consumption.
- (f) Gas Space Conditioning Allowance Program. Peoples administers gas space conditioning programs in both its Non-West Florida and West Florida Regions. The programs are virtually identical, the only substantive difference being variations in the cash allowances (see paragraph 24). The programs are designed to encourage the installation of space conditioning equipment by offering allowances to reduce the cost of installing piping, venting and energy efficient natural gas appliances. The program reduces electric demand and consumption. The Gas Space Conditioning Program is intended to include participation by residential and commercial firm gas customers and is intended to apply to total space conditioning which includes not only heating and cooling but also humidity control.
- (g) <u>Small Package Cogeneration and Feasibility Study Program</u>. Peoples administers this program only in its Non-West Florida Regions. The program promotes the direct use of natural gas to generate on-site power with options to use the waste heat for heating and cooling applications. Conditioned on the results of a

preliminary cost effectiveness analysis, allowances are offered for feasibility studies (see paragraph 25).

- (h) <u>Gas Appliance Energy Savings Payback Program</u>. Peoples administers this program only in its West Florida Region. The program is designed to promote the replacement of standard gas appliances with upgraded energy efficient gas appliances and to ensure that new installations comply with applicable energy efficiency standards, such as pilotless ignition.
- (i) <u>Program Monitoring</u>, <u>Evaluation and Research Demonstration</u>; <u>Advertising and Promotion</u>. Both the West Florida and Non-West Florida Regions have in place programs for the monitoring and evaluation of the other programs and conservation technologies, as well as for the advertising and promotion of the programs. No changes are sought in these aspects of Peoples' programs.

RELIEF REQUESTED

- 8. By this petition, Peoples seeks the Commission's approval for re-titling certain of the programs in the Non-West Florida Region, modification of the allowances payable under certain of its existing programs, and making the programs available to customers in its Non-West Florida Regions available to customers in its West Florida Region. This last action would eliminate the previously approved West Florida programs, which would be replaced by the programs Peoples has in effect throughout the remainder of its service areas, resulting in a single set of programs. Peoples requests that the modifications for which approval is sought become effective January 1, 2007.
- 9. The conservation allowance amounts proposed in this petition are the result of a cooperative development effort among the member utilities of the Associated Gas Distributors of Florida ("AGDF"), which includes all of the regulated LDCs operating in

Florida. Each of the member LDCs either administers an existing Commission-approved energy conservation program, or is actively planning to file a program. The residential conservation programs are especially critical to each LDC's ability to add and retain customers.

Over the past three years, four of the AGDF-member LDCs have participated in a joint energy conservation advertising and customer education program, and two other members are planning to participate this year. The AGDF statewide "Get Gas Florida" campaign is directed primarily at educating the public about the availability of approved energy conservation programs. Pooling each LDC's conservation education funds in support of a common "Get Gas Florida" campaign reduces development costs and enables bulk purchasing discounts that greatly increase the coverage and effectiveness of the program. AGDF-member LDCs hope to establish Commission-approved energy conservation programs with identical cash allowance levels at each LDC. Current "Get Gas Florida" advertising stops short of promoting specific conservation allowances, since the current allowances are approved in different amounts for each LDC. If each LDC offered the same allowance amounts, the gas industry could deliver a more powerful message through its conservation advertising and education programs. AGDF members agreed to focus their initial efforts on developing consistent allowance amounts for the conservation programs directed toward the homebuilding industry, residential appliance replacement and appliance retention. The allowance amounts for new construction and appliance replacement proposed in this petition, and supported by Commission-required cost benefit tests, are identical to the existing Florida City Gas allowances approved by the Commission. The appliance retention allowances are proposed at the same levels as the proposed new construction allowances.

Residential New Construction Program

- 10. The program is currently called the "Residential Home Builder Program," but would be re-titled the "Residential New Construction Program." It promotes the use of natural gas in new single and multi-family residential construction projects to developers, builders and/or homebuyers. The program is designed to increase the overall energy efficiency in the new home construction market through the installation of efficient gas appliances. Incentives in the form of cash allowances are provided to support the installation of natural gas, including interior gas piping, venting, appliance purchase and other costs associated with residential gas service. The program's cash allowances are paid for water heating, space heating, clothes drying and cooking All gas appliances installed under the program must equipment installations. demonstrate compliance with the minimum efficiency standards established by the U.S. Department of Energy. (See Uniform Test Method for Measuring the Energy Consumption of Water Heaters, Appendix E to Subpart B of 10 CFR Part 430, and 10 CFR §430.32, Energy and Water Conservation Standards and Effective Dates.)
- 11. The residential new construction cash allowances provided by Peoples are designed to reduce a homebuilder's house piping and appliance installation costs. The allowances help bring initial gas installation costs in line with the installation costs of competitive energy sources. The overall cost benefit of selecting natural gas is positive for consumers. However, homebuilders are generally more concerned with construction costs than they are with a homeowner's long-term operating and maintenance costs. As the cost of housing in Florida has escalated over the past few years, builders have become even more cost sensitive. Providing a cash allowance for gas installations, as this program has done since its inception, helps mitigate a homebuilder's construction

cost concerns and significantly improves the likelihood that efficient, clean-burning natural gas appliances will be provided to Florida homeowners.

12. Peoples is proposing an increase in the current cash allowances for all appliances approved in its Residential New Construction Program primarily to address the cost increases for gas piping, venting and appliances in the new home market. The current Peoples residential home builder allowances have been in place since Commission approval in 1994 (Order No. 94-0567-FOF-GU, Docket No. 940064-GU). The following chart depicts Peoples' current and proposed residential new construction allowances per appliance.

Peoples Residential New Construction Program Cash Allowances (including WFL)

	Peoples	WFL	Proposed
Gas Storage Tank Water Heating	\$250	\$150	\$350
Gas Tankless Water Heating	\$250	\$150	\$450
Gas Heating	\$250	\$250	\$350
Gas Cooking	\$85	\$100	\$100
Gas Clothes Drying	\$85	\$100	\$100

13. As previously noted, the allowances proposed above are identical to the Commission-approved Florida City Gas allowance amounts, with the exception of the separate allowance proposed for tankless water heating systems. Peoples seeks Commission approval to establish a separate allowance of \$450 for tankless water heating systems installed under its Residential New Construction Program. Peoples believes that a separate, higher allowance for tankless units would significantly increase installations of these highly efficient water heaters. The tankless water heater market is growing rapidly in Florida and throughout the United States. Millions of tankless units are in operation throughout Europe and Asia. Natural gas utilities in the United States have begun to actively promote tankless technology for four principal reasons: First, the

efficiency ratings of most gas-fired tankless units tested in accordance with U.S. Department of Energy test standards are well above a .80 Energy Factor ("EF"), significantly higher than new storage tank water heaters (which typically have a .59 EF). The increased efficiency of tankless units results in substantial energy savings for homeowners. Second, most tankless units are installed outside a home's conditioned space and require no venting, reducing installation costs and eliminating the need for indoor combustion air. Third, the exterior installation and elimination of a storage tank provide homebuilders with valuable additional interior square footage. Finally, the service life of a gas tankless unit is estimated at approximately 20 years, significantly longer than the approximate 12- to14-year life of a standard storage tank water heater.

- 14. Tankless technology offers builders and homeowners a gas water heating system that, compared to storage tank systems, provides greater gallon-per-minute hot water production, greater recovery efficiency ratings and higher DOE EF ratings. Most tankless water heater manufacturers are voluntarily complying with the Federal Trade Commission's Appliance Labeling Rule (16 CFR Part 305), which provides a straightforward method for homebuilders, code officials and consumers to identify EF ratings. It should also be noted that the Florida Building Commission issued a declaratory statement in May 2005 (Case No. DCA05-DEC-034) indicating that gas fired tankless units are eligible to receive the highest level of energy efficiency credit available for gas water heaters in the Florida Energy Code whole house performance compliance methodology.
- 15. The installed cost of a residential gas tankless water heater with a gallon-per-minute capability sufficient to serve a typical residence (>6 gpm) and standard exterior installation is approximately \$1,350. A typical residential storage tank gas water

heater installed in new construction averages approximately \$650. While the life-cycle cost benefits to consumers support the installation of tankless units, as indicated in the Participants Tests, the initial cost remains a hurdle to significant market penetration. The increased allowance could help Peoples offset the additional expense to a homebuilder installing the high efficiency tankless units.

Residential Appliance Replacement Program

- 16. This program is currently called the "Residential Electric Resistance Appliance Replacement Program," and Peoples seeks approval to re-title it the "Residential Appliance Replacement Program." The program encourages the replacement of inefficient non-natural gas residential appliances with energy-efficient natural gas appliances. Cash incentives are provided to reduce the installation costs of residential gas water heating, space heating, cooking and clothes drying.
- appliances approved in its Residential Appliance Replacement Program primarily to address cost increases for gas piping, venting and appliances in the existing home appliance replacement market. The allowances for appliance replacement programs have typically been approved at higher levels than new construction or appliance retention allowances due to the increased cost associated with retrofitting an existing home with gas. Installing interior gas piping and venting in existing homes is more challenging than in new construction installations where piping and venting can be installed when walls, ceilings and floors are still open and accessible. The current Peoples appliance replacement program allowances have been in place since Commission approval in 1990. The following chart depicts the current and proposed

Peoples new home allowances per appliance. As noted above, the proposed allowances are identical to the allowances approved by the Commission for Florida City Gas.

Peoples Residential Appliance Replacement Program Cash Allowances

	Peoples	WFL	Proposed
Gas Storage Tank Water Heating	\$440	\$250	\$525
Gas Tankless Water Heating	\$440	\$250	\$525
Gas Heating	\$440	\$500	\$625
Gas Cooking	\$ 75	\$150	\$100
Gas Clothes Drying	\$ 75	\$150	\$100
Gas Space Heating	\$65	\$150 (<50K Btu)	\$65
•		\$300 (>50K Btu)	

Because the program as modified will also cover the replacement of oil heating systems, Peoples also seeks authority from the Commission to terminate its current Non-West Florida Region Oil Heating Replacement Program.

Residential Appliance Retention Program

- 18. This program is currently titled the "Gas Water Heater Load Retention Program," and Peoples seeks the Commission's approval to re-title the program the "Residential Appliance Retention Program." Peoples' current retention program encourages homeowners with existing natural gas water heaters to retain natural gas when the existing water heater fails. A cash incentive is paid to reduce the cost of purchasing and installing a replacement natural gas water heater. At present, Peoples' retention program addresses only natural gas water heating installations.
- 19. Peoples proposes to expand its current retention program to add allowances for heating, clothes drying and cooking appliances to the existing water heating allowances. A separate allowance for gas tankless water heating systems is also proposed. Peoples seeks approval of appliance retention allowance levels identical to the proposed allowances for its Residential New Construction Program.

- 20. Peoples recognizes that the cost to retain an existing customer is significantly lower than the cost to add a new customer. The proposed retention allowances will strengthen Peoples' ability to retain existing gas customers and avoid the cost of meter removal and, ultimately, the cost of cutting and capping service lines (as is required by Commission rule). When a customer is lost, the typical cost to remove the meter and cut and cap the service is estimated at \$370. Retaining customers also enhances Peoples' ability to spread its fixed operating costs over a greater number of customers, thereby assisting in mitigating the need for future rate adjustments. All ratepayers benefit from the retention of revenues from an existing customer. Although the benefit of avoiding service termination costs for existing customers is significant, Peoples has elected to present a conservative analysis and did not include avoided cut-and-cap costs in the RIM Test cost benefit calculations.
- 21. The following chart depicts the current and proposed Peoples retention allowances per appliance.

Peoples Residential Appliance Retention Program Cash Allowances

	Peoples	WFL	Proposed
Gas Storage Tank Water Heating	\$100	\$100	\$350
Gas Tankless Water Heating	\$0	\$0	\$450
Gas Heating	\$0	\$0	\$350
Gas Cooking	\$ 0	\$0	\$100
Gas Clothes Drying	\$0	\$0	\$100

22. Consistent with its proposed Residential New Construction Program allowances, Peoples is proposing to establish a separate retention allowance for the installation of gas tankless water heating systems at a level higher than that for storage water heating systems. The service life of a storage tank water heater averages approximately 14 years, and the typical efficiency rating of a storage tank water heater

installed in the early 1990's was .48 EF. Given the efficiency degradation that naturally occurs as storage tank units age, and the high EF ratings of most tankless water heaters (above .80 EF), it would not be unusual to expect a new tankless installation to be twice as efficient as the water heater to be replaced. The increased allowance for tankless water heaters would help reduce the initial cost of upgrading an inefficient storage tank water heater. Peoples seeks Commission approval to establish a \$450 allowance for gas tankless water heaters installed under the Residential Appliance Retention Program.

Commercial Electric Resistance Appliance Replacement Program

23. The Commercial Electric Resistance Appliance Replacement Program provides allowances to convert existing electric appliances to natural gas. The allowance in Peoples' Non-West Florida Regions is currently \$40 per KW displaced (with a maximum of 100 KW). In the West Florida Region, the allowance is \$30 per KW displaced (with a maximum of 100 KW). As noted above, Peoples proposes to eliminate the current West Florida Region program, and replace it with the Non-West Florida Region program, including the Non-West Florida Region allowance. The Peoples' Non-West Florida program passed the RIM and Participants Test minimum thresholds when originally approved by the Commission. Authorizing the West Florida Region customers to participate in the existing Non-West Florida Region program would not affect the cost effectiveness determinations of the tests.

Gas Space Conditioning Allowance Program

24. The Gas Space Conditioning Allowance Program provides allowances to residential and commercial customers installing gas space conditioning equipment. The allowance in Peoples' Non-West Florida Regions is currently \$150 per ton (for up to a maximum of 100 tons per project). In the West Florida Region, the allowance is \$100 per

ton (for up to a maximum of 100 tons per project). As described earlier in this petition, Peoples proposes to eliminate the current West Florida Region program, and replace it with the Non-West Florida Region program, including the Non-West Florida Region allowance. The Peoples' Non-West Florida program passed the RIM and Participants Test minimum thresholds when originally approved by the Commission. Authorizing the West Florida Region customers to participate in the existing Non-West Florida Region program would not affect the cost effectiveness determinations of the tests.

Small Package Cogeneration and Feasibility Study Program

25. The Small Package Cogeneration and Feasibility Study Program provides allowances to study the economic and operational feasibility of potential natural gas cogeneration sites and provide installation incentives. The program is currently offered solely to Peoples' Non-West Florida Region customers. Peoples' proposes to designate its West Florida Region customers eligible to participate in the existing program. The current approved allowances provide a maximum of \$5,000 per project for the feasibility study and \$150 per KW (maximum of 150 KW per project) for installation.

Gas Appliance Energy Savings Payback Program

26. The Gas Appliance Energy Savings Payback Program provides a \$50 per appliance allowance to upgrade existing natural gas appliances with more efficient natural gas appliances. The program is offered only in the West Florida Region. The original program was designed principally to encourage customers to select pilot-less ignition appliances, and appliances with increased energy efficiency ratings. The allowances provided in the modified Appliance Replacement and Appliance Retention Programs proposed in this petition, along with the minimum efficiency rating requirements established in each program, would ensure that appropriate incentives for efficient gas

appliances remain to replace those currently provided in the Energy Savings Payback Program.

COST BENEFIT TESTS

- 27. Peoples has followed the Commission-approved cost effectiveness test methodologies (RIM Test and Participants Test) required by Rule 25-17.009 to determine the cost-benefit of each proposed program modification and allowance level. Attached hereto as Exhibit A is a composite document containing Peoples' RIM and Participants Tests demonstrating the cost benefit of the proposed program modifications for the Residential New Construction Program, the Residential Appliance Replacement Program and the Residential Appliance Retention Program. Other than the above listed programs, Peoples is proposing no modifications to its programs that would affect the various programs' cost benefit results as determined by the RIM and Participants Tests.
- 28. The appliance cost, appliance installation cost and energy usage data required to complete the RIM and Participants Tests were developed through a cooperative effort of members of AGDF. Historically, the Commission has allowed LDCs to use average appliance and usage data in preparing the RIM and Participants Tests. LDCs operating in multiple jurisdictions in the state have not filed multiple regional based conservation programs. The data used to produce the Peoples RIM and Participants Tests are representative of appliance costs, installation costs and energy usage information on a statewide basis, and would be applicable to any LDC cost-benefit tests.
- 29. While many of the data elements included in this filing could be applied to any Florida LDC RIM or Participants Tests, there are several data elements that are applicable solely to Peoples. For example, the Customer Charge and Energy Charge rates used in the analysis are Peoples' current Commission-approved rates. The

incremental administrative cost and operations and maintenance cost relative to adding a new customer through the Residential New Construction Program or Residential Appliance Replacement Program are based on growth related expense data from the 2002 Peoples base rate case (Order No. PSC-03-0035-FOF-GU, issued in Docket No. 020384-GU, hereinafter, the "2002 Rate Case"). Residential service line, meter and regulator investment costs are as approved in MFR Schedule E-7 in the 2002 Rate Case. The RIM Tests also use Peoples' approved weighted average cost of capital from the 2002 Rate Case. The depreciation rates used in the RIM Tests are those approved by the Commission in Peoples' 2001 Depreciation Study (Order No. PSC-02-1492-PAA-GU, issued in Docket No. 010383-GU).

- 30. The cost of gas used in the RIM and Participants Tests is based on Peoples' Purchased Gas Adjustment price for July 2006. The cost of electricity was developed from a weighted average of the residential rates, including fuel adjustment rates, in place during April 2006 for the four largest Florida investor-owned Commission-regulated electric utilities.
- 31. The annual gas therm usage data by appliance used in the respective cost benefit tests is based on data developed by Peoples. In 1995, Peoples conducted a gas appliance sub-metering research project for the specific purpose of developing residential usage data necessary for forecasting project feasibility and conservation filing cost benefit tests. The study sub-metered appliances in over 300 PGS gas customer residences. The residences were selected throughout the PGS service area, in the north, central and south regions of the state. Consumption data was monitored for over a year.

- 32. Electric appliance Kwh usage data was obtained from several sources. Resistance water heating consumption data was developed using the November 2005 Consumer's Directory of Certified Efficiency Ratings for Heating and Water Heating Equipment published by the Gas Appliance Manufacturers Association ("GAMA"), a national trade association representing over 90 percent of all appliances (gas and electric) manufactured in the United States. Usage data for electric heat pumps was obtained from the EnergyGauge computer model (Version: FLR3SB v4.0) used to assess compliance with the Florida Energy Efficiency Code for Building Construction. Kwh usage data for electric cooking and clothes drying was derived from a standard Btu conversion of the gas therms from the Peoples study to electric Kwh.
- 33. Obtaining appliance installation cost data was problematic for the AGDF project team. Cost data in the new residential construction market is difficult to obtain. For competitive reasons, most homebuilders are reluctant to provide individualized product or material costs, unless they are pricing an upgrade to their base home package. Subcontractors are equally reticent to publicly disclose component prices. In many cases, a subcontractor provides a package price for services that include gas appliance installations along with other non-gas products. For example, a plumbing contractor may provide a turn-key price for the potable water piping to a homebuilder that also includes installing the gas water heater. In addition, wholesale pricing from distributors becomes relatively meaningless given the escalation in price mark-ups on new homes over the past few years. The AGDF project team determined that, given the above concerns, the most reliable cost data would be obtained from appliance retailers with a large Florida sales presence and from nationally recognized cost estimating publications in widespread use in the residential construction industry. The data

developed from these sources were compared to internal cost information available through Florida Public Utility Company's ("FPUC's") retail appliance operation. FPUC is the only AGDF member that retails and installs gas appliances.

- 34. Appliance costs for storage tank water heaters, tankless water heaters, cooking equipment and clothes dryers was obtained from the Home Depot and Lowes web sites (www.homedepot.com and www.lowes.com). Retail cost data from both sources was available for both gas and electric appliances. Care was taken to ensure that comparable appliance models were selected for both fuel types. The appliances referenced above are available for retail purchase and delivery anywhere in the state at the prices quoted on the Home Depot or Lowes websites. Use of a major appliance retailer's published pricing provides the Commission verifiable, real world price data. In Peoples' view, the retail Home Depot and/or Lowes prices provide a reasonable price point for inclusion in the RIM and Participants Tests. It should be noted that the National Energy Policy Act of 2005 provides for a \$300 tax credit to homeowners purchasing a water heater with an EF greater than .80. As noted above, virtually all gas-fired tankless units are rated above .80 EF. Although the tax credit is currently available for homeowner improvements, Peoples elected to make a conservative analysis and has not included the tax credit in its Participants Test analysis in the appliance replacement or appliance retention programs.
- 35. The installation costs for the above referenced appliances were developed through a combination of efforts. AGDF member companies surveyed local plumbers, air conditioning contractors and gas fitters to obtain installation pricing. As noted previously, there was significant variation in the price points for installation, in those cases where the contractors were willing to share cost data. For example, variations of several hundred

dollars were identified for gas and electric water heating installations depending on the region of the state and the market type of the residence. Finally, installation costs were obtained from the "2006 R.S. Means Residential Construction Cost Data, 25th Annual Edition", construction cost estimating guide. The R.S. Means guide is a nationally recognized construction cost estimator. R.S. Means has established material prices based on national averages and labor rates based on seven average regional wage rates. Costs can be further adjusted to over 900 locations throughout the U.S and Canada.

36. The equipment and installation costs for gas heating and electric heat pumps were also difficult to obtain for the same reasons listed above. The R.S. Means guide was used for space heating equipment and installation costs. The costs for gas main installations (feeder main and development main) were jointly developed by the AGDF project team based on average cost data for installation of 2" plastic main (typical for residential projects).

ELIMINATION OF WEST FLORIDA REGION PROGRAMS

37. Peoples seeks the Commission's approval to offer the programs currently in place in its Non-West Florida Regions, with the modifications for which approval is sought herein, to customers throughout its service areas, including Peoples' West Florida Region. If this request is approved, the West Florida programs would be eliminated, leaving Peoples with a single set of conservation programs under which to pursue the goals of FEECA. Permitting Peoples to offer a single set of programs would simplify the Company's monitoring and reporting responsibilities, as well as reduce the cost of such monitoring and reporting. The single set of conservation programs for which Peoples

seeks approval to offer throughout its service areas is attached to this petition as Exhibit B.

- 38. The RIM and Participants Tests attached to this petition cover only the programs for which changes in allowance levels are sought, and include data for both the West Florida and Non-West Florida Regions. That is, the tests for these programs assume, as they should, that the programs will apply in all of Peoples' service areas in Florida. Peoples has not performed these tests for the Commercial Electric Resistance Appliance Program, the Gas Space Conditioning Allowance Program, or the Small Package Cogeneration and Feasibility Study Program because the only change to these programs is to make West Florida Region customers eligible to participate in these existing Non-West Florida Region programs. The data compilation and analysis required to produce RIM and Participants Tests, particularly for commercial applications, is time consuming and expensive. Given that Peoples is not proposing changes that impact cost benefits for the above listed programs, in Peoples' view no additional RIM or Participants Tests are required. However, in the event the Commission so desires, Peoples would work with the Commission Staff to produce such evaluations.
- 39. Peoples is not at this time requesting any adjustment in its approved Energy Conservation Cost Recovery billing factors. If the modifications to the allowances payable under the programs are approved as sought by this petition, such modifications will be incorporated in the projection filing to be made by Peoples for the purpose of establishing billing factors for calendar year 2007; that is, any additional costs resulting from increased cash allowances approved by the Commission, as well as the treatment of any over and underrecovery balances for the West Florida and Non-West Florida Regions, would be addressed in the projection filing for 2007. Impact of the proposed

increased allowances on Peoples' overall energy conservation expenses is expected to increase gradually in future years.

CONCLUSION

- 40. The energy conservation program modifications proposed by Peoples reflect realistic market conditions. Increased new home incentives are needed to keep pace with increases in homebuilding costs. Merging the West Florida and Peoples programs simplifies administration of the programs, and filing one set of ECCR factors and a single true-up each year (instead of one each for the West Florida and Non-West Florida Regions) will reduce the time and expense associated with the filings. The authorization of tankless water heater incentives will enable Peoples to recognize and promote energy efficient technological advances in gas appliance manufacturing. Each of the proposed modifications meets the Commission-required cost effectiveness tests, is capable of being monitored, and will have an overall positive effect on energy conservation.
- 41. The cash allowances for which approval is sought in each residential conservation program would be paid based on the installation of the applicable appliances. Multiple allowances would be paid for multiple appliance installations in a single residence. For multi-family residential installations with central heating and/or water heating systems, Peoples would pay allowances based on the number of residential dwelling units served by the central system.
- 42. Peoples is requesting approval of the above referenced modifications to its conservation programs at this time so that they, and any true-ups related to 2006, may be incorporated in the energy conservation cost recovery projections for 2007.

43. Peoples proposes to offer the new allowance amounts to any individually constructed (scattered site) residence that activates gas service (based on the turn-on

date) on or subsequent to January 1, 2007.

44. All requests for cash allowances under the appliance replacement or

appliance retention programs received by Peoples subsequent to January 1, 2007 would

be paid at the new allowance levels.

WHEREFORE, Peoples respectfully requests that the Commission enter its

order granting this petition and the conservation plan modifications hereinabove

described within ninety (90) days of the filing date of this petition, such plan

modifications to become effective January 1, 2007.

Respectfully submitted,

Ansley Watson, Jr.

Macfarlane Ferguson & McMullen

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Tampa, Florida 33601-1531

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Attorneys for Peoples Gas System

То

Peoples Gas System Energy Conservation Program Petition June 21, 2006

Ratepayer Impact Measurement Test Results
Participants Test Results

For

Residential New Construction Program Residential Appliance Replacement Program Residential Appliance Retention Program

Peoples Gas System Energy Conservation Program June 21, 2006

Residential New Construction Program Summary of RIM Test and Participants Test Results

	Proposed <u>Allowance</u>	Participants Test	RIM Test
Gas Storage Tank Water Heating	\$350	1.41	1.08
Gas Tankless Water Heating	\$450	1.29	1.03
Gas Heating	\$350	1.09	1.09
Gas Clothes Drying	\$100	1.30	1.09
Gas Cooking	\$100	1.27	1.08

Peoples Gas System Energy Conservation Program June 21, 2006

Residential New Construction Program RIM Test and Participants Test Results

For

Storage Tank Water Heating

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Results

Appliance Type

Storage Tank Water Heating

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge	Gas	Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$64	\$202	\$46	\$312	\$202	\$29	\$23	\$350	\$604
2003	\$64	\$207	\$46	\$317	\$207	\$28	\$24	\$0	\$259
2004	\$64	\$212	\$46	\$322	\$212	\$27	\$24	\$0	\$263
2005	\$64	\$217	\$46	\$327	\$217	\$25	\$25	\$0	\$268
2006	\$64	\$222	\$46	\$333	\$222	\$24	\$25	\$0	\$272
2007	\$64	\$228	\$46	\$338	\$228	\$23	\$26	\$0	\$277
2008	\$64	\$233	\$46	\$343	\$233	\$22	\$27	\$0	\$282
2009	\$64	\$239	\$46	\$349	\$239	\$21	\$27	\$0	\$288
2010	\$64	\$245	\$46	\$355	\$245	\$21	\$28	\$0	\$293
2011	\$64	\$250	\$46	\$361	\$250	\$20	\$29	\$0	\$299
2012	\$64	\$256	\$46	\$367	\$256	\$19	\$30	\$0	\$305
2013	\$64	\$263	\$46	\$373	\$263	\$18	\$30	\$0	\$311
2014	\$64	\$269	\$46	\$379	\$269	\$17	\$31	\$0	\$317
2015	\$64	\$275	\$46	\$385	\$275	\$17	\$32	\$0	\$324
2016	\$64	\$282	\$46	\$392	\$282	\$16	\$33	\$0	\$330
2017	\$64	\$289	\$46	\$399	\$289	\$15	\$33	\$0	\$337
2018	\$64	\$296	\$46	\$406	\$296	\$15	\$34	\$0	\$344
2019	\$64	\$303	\$46	\$413	\$303	\$14	\$35	\$0	\$352
2020	\$64	\$310	\$46	\$420	\$310	\$14	\$36	\$0	\$359
2021	\$64	\$317	\$46	\$428	\$317	\$13	\$36	\$0	\$367

Present Value of Benefits

\$3,448

Present Value of Costs \$3,179

Benefit/Cost	
Ratio	1.08

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Calculated data

Appliance Type

Storage Tank Water Heating

PGA Rate Escalator Base Rate Escalator Electric Rate escalator

2.4% 0.0% 2.4%

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter

2.80% 2.80% 4.40% 5.40%

Customer Charge - Gas Customer Charge - Electric Inflation factor

		ciecaic Raie	escalator	
able 1				
able 1				1
Re	venue - F	nergy Char	ne	
1	2	3	2*3	1
				ĺ
	_	_		}
Year	Therms	Base Rate	Total Rate	i
2005	170	\$0.3767	\$64	
2006	170	\$0.3767	\$64	
2007	170	\$0.3767	\$64	ì
2008	170	\$0.3767	\$64	
2009	170	\$0,3767	\$64	
2010	170	\$0.3767	\$64	
2011	170	\$0,3767	\$64	
2012	170	\$0.3767	\$64	
2013	170	\$0.3767	\$64	
2014	170	\$0.3767	\$64	
2015	170	\$0.3767	\$64	
2016	170	\$0.3767	\$64	
2017	170	\$0.3767	\$64	
2018	170	\$0.3767	\$64	
2019	170	50.3767	\$64	
2020	170	\$0.3767	\$64	
2021	170	\$0.3767	\$64	
2022	170	\$0.3767	S64	
2023	170	\$0.3767	\$64	
2024	170	\$0.3767	564 564	
2024	170	\$0.3767	364	

Rev	venue - Er	nergy Char	qe
	2	3	2*3
-			
	_	_	
_	Therms	Base Rate	Total Rate
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0,3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0,3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	50.3767	\$64
	170	\$0.3767	\$64
	170	50.3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0.3767	\$64
	170	\$0,3767	\$64
_	170	\$0.3767	\$64

B	evenue - Cos	t of Gas	
1	2	4	2*3
Year	Therms	PGA Rate	Total Rate
2005	170	\$1.1900	\$202
2006	170	\$1.2186	\$207
2007	. 170	\$1.2478	\$212
2008	170	\$1.2778	\$217
2009	170	\$1.3084	\$222
2010	170	\$1,3398	\$228
2011	170	\$1.3720	\$233
2012	170	\$1.4049	\$239
2013	170	\$1.4386	\$245
2014	170	\$1,4731	\$250
2015	170	\$1.5085	\$256
2016	170	\$1.5447	\$263
2017	170	\$1.5818	\$269
2018	170	\$1.6197	\$275
2019	170	\$1,6586	\$282
2020	170	\$1.6984	\$289
2021	170	\$1.7392	\$296
2022	170	\$1.7809	\$303
2023	170	\$1.8237	\$310
2024	170	\$1.8674	\$317

Revenue - Customer Charge								
_1	2	3	4	4*3				
		_	Ratio of					
			Therms					
	Customer	Annual	Consumed	Prorated				
Year	Charge/Mo	Cust, Chg	To Total	Cust. Chg				
2005	\$10.00	\$120.00	38.37%	\$46				
2006	\$10.00	\$120.00	38.37%	\$46				
2007	\$10.00	\$120,00	38.37%	\$46				
2008	\$10.00	\$120.00	38.37%	\$46				
2009	\$10.00	\$120.00	38.37%	\$46				
2010	\$10.00	\$120.00	38.37%	\$46				
2011	\$10.00	\$120.00	38.37%	\$46				
2012	\$10.00	\$120.00	38.37%	\$46				
2013	\$10,00	\$120.00	38.37%	\$46				
2014	\$10,00	\$120.00	38.37%	\$46				
2015	\$10.00	\$120.00	38.37%	- \$46				
2016	\$10.00	\$120.00	38.37%	\$46				
2017	\$10,00	\$120.00	38.37%	\$46				
2018	\$10.00	\$120.00	38.37%	\$46				
2019	\$10.00	\$120.00	38,37%	\$46				
2020	\$10.DB	\$120.00	38.37%	\$46				
2021	\$10.00	\$120.00	38.37%	\$46				
2022	\$10,00	\$120.00	38.37%	\$46				
2023	\$10.00	\$120.00	38.37%	\$46				
2024	\$10.00	\$120.00	38.37%	\$46				

			inv	estment C	arrying Cost	ts		
_1	2	3	4	5	6	7	8	6*7*8
	Supply	Developmen	Service		Customer	Avg Cost	Ratio of Therms	Carrying Chr
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svo
2005	\$50	\$140	\$500	\$163	\$853	8.83%	38.37%	\$29
2006	\$49	\$136	\$478	\$154	\$817	8.83%	38.37%	\$28
2007	\$48	\$132	\$457	\$146	\$783	8.83%	38.37%	\$27
2008	\$47	\$128	\$437	\$138	\$750	8.83%	38.37%	\$25
2009	\$46	S124	\$418	\$131	\$719	8.83%	38.37%	\$24
2010	\$45	\$121	\$400	\$124	\$690	8.83%	38.37%	\$23
2011	\$44	\$118	\$382	\$117	5661	8.83%	38.37%	\$22
2012	\$43	\$115	\$365	\$111	\$634	8.83%	38.37%	\$21
2013	\$42	\$112	\$349	\$105	\$608	8.83%	38.37%	\$21
2014	\$41	\$109	\$334	\$99	\$583	8.83%	38.37%	\$20
2015	\$40	\$106	\$319	\$94	\$559	8.83%	38,37%	\$19
2016	\$39	\$103	\$305	\$89	\$536	8.83%	38.37%	\$18
2017	\$38	\$100	\$292	584	\$514	8.83%	38.37%	\$17
2018	\$37	597	\$279	579	\$492	8.83%	38.37%	\$17
2019	\$36	\$94	\$267	\$75	\$472	8 83%	38,37%	\$16
2020	\$35	\$91	\$255	\$71	\$452	8.83%	38.37%	\$15
2021	\$34	\$88	\$244	\$67	\$433	8.83%	38,37%	\$15
2022	\$33	\$86	\$233	\$63	\$415	8.83%	38.37%	\$14
2023	\$32	\$84	\$223	\$60	\$399	8.83%	38.37%	\$14
2024	\$31	\$82	\$213	\$57	\$383	8.83%	38,37%	\$13

Incremental Customer Costs										
1	2	3	4		5=3*4		6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Cu	ıstomer	o	8 M	Ratio Therms To	Main	New Customer
Year	Cost	Adm, Cost	Total Consumed		Costs	C	Cost	Total Consumed	Cost	Adm. & Main O&N
2005	\$2.61	\$31	38.37%	\$	11.90	\$	29	38.37%	\$11	\$23
2006	\$2.67	\$32	38.37%	\$	12.28	5	30	38.37%	\$12	\$24
2007	\$2.74	\$33	38.37%	\$	12,66	5	31	38.37%	\$12	\$24
2008	\$2.80	\$34	38.37%	\$	13.05	\$	31	38.37%	\$12	\$25
2009	\$2.87	\$34	38.37%	\$	13.05	\$	32	38.37%	\$12	\$25
2010	\$2.94	\$35	38.37%	8	13.43	\$	33	38.37%	\$13	\$26
2011	\$3.01	\$36	38.37%	s	13.81	\$	34	38.37%	\$13	\$27
2012	\$3.08	\$37	38.37%	\$	14,20	\$	35	38.37%	\$13	\$27
2013	\$3.16	\$38	38.37%	5	14.58	\$	35	38.37%	\$14	\$28
2014	\$3.23	\$39	38.37%	\$	14.97	\$	36	38.37%	\$14	\$29
2015	\$3.31	\$40	38.37%	\$	15.35	\$	37	38.37%	\$14	\$30
2016	\$3,39	\$41	38.37%	\$	15,73	\$	38	38.37%	\$15	\$30
2017	\$3.47	\$42	38.37%	\$	16.12	\$	39	38.37%	\$15	\$31
2018	\$3.55	\$43	38.37%	\$	16.50	\$	40	38,37%	\$15	\$32
2019	\$3.64	\$44	38.37%	\$	16,88	\$	41	38,37%	\$16	\$33
2020	\$3.73	\$45	38.37%	\$	17.27	\$	42	38.37%	\$16	\$33
2021	\$3.81	\$46	38.37%	\$	17.65	\$	43	38,37%	\$16	\$34
2022	\$3.91	\$47	38.37%	\$	18.04	5	44	38,37%	\$17	\$35
2023	\$4.00	\$48	38.37%	\$	18.42	\$	45	38,37%	\$17	\$36
2024	\$4.10	\$49	38.37%	s	18.80	\$	46	38.37%	\$18	\$36

	Gas	Costs	
1	2	3	2,3
	Therms	Per Therm	Gas Supply
Year		Supply Cost	Cost
2005	170	1,1900	\$202
2006	170	\$1.2186	\$207
2007	170	\$1.2478	\$212
2008	170	\$1.2778	\$217
2009	170	\$1.3084	\$222
2010	170	\$1.3398	\$228
2011	170	\$1.3720	\$233
2012	170	\$1.4049	\$239
2013	170	\$1.4386	\$245
2014	170	\$1.4731	\$250
2015	170	\$1.5085	\$256
2016	170	\$1.5447	\$263
2017	170	\$1.5818	\$269
2018	170	\$1.6197	\$275
2019	170	\$1.6586	5282
2020	170	\$1.6984	\$289
2021	170	\$1.7392	\$296
2022	170	\$1,7809	\$303
2023	170	\$1.8237	\$310
2024	170	\$1.8674	\$317

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Data

Appliance Type
Storage Tank Water Heating

O&M expense 2.4% PGA Gas Rates 2.4% Customer Charge 0%

Electric rates (fu 2.4% PGA Base Rate 0.0%

	Electric I	KWH Cost - T	able 1	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
A		С	D	B*C*(1+D)
2005	\$0.1020	4,773	10%	\$536
2006	\$0.1034	4,773	10%	\$543
2007	\$0.1047	4,773	10%	\$550
2008	\$0.1061	4,773	10%	\$557
2009	\$0.1074	4,773	10%	\$564
2010	\$0.1088	4,773	10%	\$571
2011	\$0.1101	4,773	10%	\$578
2012	\$0.1115	4,773	10%	\$585
2013	\$0.1128	4,773	10%	\$592
2014	\$0.1142	4,773	10%	\$599
2015	\$0.1155	4,773	10%	\$607
2016	\$0.1169	4,773	10%	\$614
2017	\$0.1182	4,773	10%	\$621
2018	\$0.1196	4,773	10%	\$628
2019	\$0.1209	4,773	10%	\$635
2020	\$0.1223	4,773	10%	\$642
2021	\$0.1236	4,773	10%	\$649
2022	\$0.1250	4,773	10%	\$656
2023	\$0.1263	4,773	10%	\$663
2024	\$0.1277	4,773	10%	\$670

Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
Α_	B	С	D	B*C*(1+D)
2005	\$1.1900	170	10%	\$223
2006	\$1.2186	170	10%	\$228
2007	\$1.2478	170	10%	\$233
2008	\$1.2778	170	10%	\$239
2009	\$1.3084	170	10%	\$245
2010	\$1.3398	170	10%	\$251
2011	\$1.3720	170	10%	\$257
2012	\$1.4049	170	10%	\$263
2013	\$1.4386	170	10%	\$269
2014	\$1.4731	170	10%	\$275
2015	\$1.5085	170	10%	\$282
2016	\$1.5447	170	10%	\$289
2017	\$1.5818	170	10%	\$296
2018	\$1.6197	170	10%	\$303
2019	\$1.6586	170	10%	\$310
2020	\$1.6984	170	10%	\$318
2021	\$1.7392	170	10%	\$325
2022	\$1.7809	170	10%	\$333
2023	\$1.8237	170	10%	\$341
2024	\$1.8674	170	10%	\$349

		Annual		
Year	Rate Per Therm	Therms used	Tax & Fees	Gas Cost
A	В	С	D	B*C*(1+D
2005	\$0.3767	170	10%	\$70
2006	\$0.3767	170	10%	\$70
2007	\$0.3767	170	10%	\$70
2008	\$0.3767	170	10%	\$70
2009	\$0.3767	170	10%	\$70
2010	\$0.3767	170	10%	\$70
2011	\$0.3767	170	10%	\$70
2012	\$0.3767	170	10%	\$70
2013	\$0.3767	170	10%	\$70
2014	\$0.3767	170	10%	\$70
2015	\$0.3767	170	10%	\$70
2016	\$0.3767	170	10%	\$70
2017	\$0.3767	170	10%	\$70
2018	\$0.3767	170	10%	\$70
2019	\$0.3767	170	10%	\$70
2020	\$0.3767	170	10%	\$70
2021	\$0.3767	170	10%	\$70
2022	\$0.3767	170	10%	\$70
2023	\$0.3767	170	10%	\$70
2024	\$0.3767	170	10%	\$70

			Gas Custon	ner Charge	- Table 4		
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	С	Đ	E	D/E	G	C*(D/E)*(1+Z
2005	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2006	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2007	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2008	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2009	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2010	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2011	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2012	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2013	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2014	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2015	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2016	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2017	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2018	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2019	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2020	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2021	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2022	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2023	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2024	\$10.00	\$120.00	170	443	38.37%	10%	\$51

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Cost Effective Results

Appliance Type
Storage Tank Water Heating

_			Benefits	3				*,,	Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1				· ·				Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$536	\$350	\$36	\$922	\$259	(\$314)	\$400	\$36	\$223	\$70	\$ 51	\$725
2006	2	\$543	0	\$37	\$580	0	0	0	\$37	\$228	\$70	\$51	\$386
2007	3	\$550	0	\$38	\$588	0	0	0	\$38	\$233	\$70	\$ 51	\$392
2008	4	\$557	0	\$39	\$596	0	0	0	\$39	\$239	\$70	\$ 51	\$399
2009	5	\$564	0	\$40	\$604	0	0	0	\$40	\$245	\$70	\$ 51	\$405
2010	6	\$571	0	\$41	\$612	0	0	0	\$41	\$251	\$70	\$ 51	\$412
2011	7	\$578	0	\$42	\$620	0	0	0	\$42	\$257	\$70	\$51	\$419
2012	8	\$585	0	\$43	\$628	0	0	0	\$43	\$263	\$70	\$51	\$426
2013	9	\$592	0	\$44	\$636	0	0	0	\$44	\$269	\$70	\$51	\$434
2014	10	\$599	0	\$45	\$644	0	0	0	\$45	\$275	\$70	\$51	\$441
2015	11	\$607	0	\$46	\$652	0	0	0	\$46	\$282	\$70	\$51	\$449
2016	12	\$614	0	\$47	\$660	0	0	0	\$47	\$289	\$70	\$51	\$457
2017	13	\$621	0	\$48	\$669	0	0	0	\$48	\$296	\$70	\$51	\$465
2018	14	\$628	100	\$49	\$777	361	(438)	348	\$49	\$303	\$70	\$51	\$745
2019	15	\$635	0	\$50	\$685	0	0	0	\$50	\$310	\$70	\$51	\$481
2020	16	\$642	0	\$51	\$693	0	0	0	\$51	\$318	\$70	\$51	\$490
2021	17	\$649	0	\$53	\$702	0	0	0	\$53	\$325	\$70	\$51	\$499
2022	18	\$656	0	\$54	\$710	0	0	0	\$54	\$333	\$70	\$51	\$508
2023	19	\$663	0	\$55	\$718	0	0	0	\$55	\$341	\$70	\$51	\$517
2024	20	\$670	0	\$56	\$727	0	0	0	\$56	\$349	\$70	\$51	\$527

Present Value of Benefits \$6,528

Present Value of Costs \$4,626

Benefit/Cost	1.41
Ratio	

Peoples Gas System Energy Conservation Program June 21, 2006

Residential New Construction Program
RIM Test and Participants Test Results

For

Tankless Water Heating

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Results

Appliance Type

Tankless Water Heating

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$57	\$179	\$46	\$281	\$179	\$29	\$23	\$450	\$681
2003	\$57	\$183	\$46	\$285	\$183	\$28	\$24	\$0	\$234
2004	\$57	\$187	\$46	\$290	\$187	\$27	\$24	\$0	\$238
2005	\$57	\$192	\$46	\$294	\$192	\$25	\$25	\$0	\$242
2006	\$57	\$196	\$46	\$299	\$196	\$24	\$25	\$0	\$246
2007	\$57	\$201	\$46	\$304	\$201	\$23	\$26	\$0	\$250
2008	\$57	\$206	\$46	\$308	\$206	\$22	\$27	\$0	\$255
2009	\$57	\$211	\$46	\$313	\$211	\$21	\$27	\$0	\$260
2010	\$57	\$216	\$46	\$318	\$216	\$21	\$28	\$0	\$265
2011	\$57	\$221	\$46	\$324	\$221	\$20	\$29	\$0	\$270
2012	\$57	\$226	\$46	\$329	\$226	\$19	\$30	\$0	\$275
2013	\$57	\$232	\$46	\$334	\$232	\$18	\$30	\$0	\$280
2014	\$57	\$237	\$46	\$340	\$237	\$17	\$31	\$0	\$286
2015	\$57	\$243	\$46	\$346	\$243	\$17	\$32	\$0	\$291
2016	\$57	\$249	\$46	\$351	\$249	\$16	\$33	\$0	\$297
2017	\$57	\$255	\$46	\$357	\$255	\$15	\$33	\$0	\$303
2018	\$57	\$261	\$46	\$363	\$261	\$15	\$34	\$0	\$310
2019	\$57	\$267	\$46	\$370	\$267	\$14	\$35	\$0	\$316
2020	\$57	\$274	\$46	\$376	\$274	\$14	\$36	\$0	\$323
2021	\$57	\$280	\$46	\$383	\$280	\$13	\$36	\$0	\$330

Present Value of Benefits \$3,095

Present Value of Costs \$2,993

Benefit/Cost		
Ratio	1.	

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Calculated data

Appliance Type Tankless Water Heating

PGA Rate Escalator

Base Rate Escalator Electric Rate escalator

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter

2.80% 2.80% 4.40% 5.40%

Customer Charge - Gas Customer Charge - Electric Inflation factor

F	Revenue -	Energy cha	rge
1	2	3	2*3
Year	Therms	Base Rate	Total Rate
2005	150	\$0.3767	\$57
2006	150	\$0.3767	\$57
2007	150	\$0.3767	\$57
2008	150	\$0.3767	\$57
2009	150	\$0.3767	\$57
2010	150	\$0.3767	\$57
2011	150	\$0.3767	\$57
2012	150	\$0.3767	\$57
2013	150	\$0.3767	\$57
2014	150	\$0.3767	\$57
2015	150	\$0,3767	\$57
2016	150	\$0.3767	\$57
2017	150	\$0.3767	\$57
2018	150	\$0.3767	\$57
2019	150	\$0.3767	\$57
2020	150	\$0.3767	\$57
2021	150	\$0.3767	\$57
2022	150	\$0.3767	\$57
2023	150	\$0.3767	\$57
2024	150	\$0.3767	\$57

	Revenue - Co	st of Gas	
1	?	4	2*3
Year	Therms	PGA Rate	Total Rale
2005	150	\$1.1900	\$179
2006	150	\$1.2186	\$183
2007	150	\$1.2478	\$187
2008	150	\$1.2778	\$192
2009	150	\$1.3084	\$196
2010	150	\$1.3398	\$201
2011	150	\$1,3720	\$206
2012	150	\$1,4049	\$211
2013	150	\$1.4386	\$216
2014	150	\$1,4731	\$221
2015	150	\$1.5085	\$226
2016	150	\$1,5447	\$232
2017	150	\$1,5818	\$237
2018	150	\$1.6197	\$243
2019	150	\$1,6586	\$249
2020	150	\$1.6984	\$255
2021	150	\$1.7392	\$261
2022	150	\$1,7809	\$267
2023	150	\$1,8237	\$274
2024	150	\$1.8674	\$280

Revenue - Customer Charge									
1	2	3	4	4-3					
			Ratio of						
			Therms						
	Customer	Annual	Consumed	Prorated					
Year	Charge/Mo	Cust. Chg	To Total	Cust. Chg					
2005	\$10.00	\$120.00	38.37%	\$46					
2006	\$10.00	\$120.00	38.37%	\$46					
2007	\$10.00	\$120.00	38.37%	\$46					
2008	\$10.00	\$120.00	38.37%	\$46					
2009	\$10.00	\$120.00	38,37%	\$46					
2010	\$10.00	\$120.00	38.37%	\$46					
2011	\$10.00	\$120.00	38.37%	\$46					
2012	\$10.00	\$120.00	38.37%	\$46					
2013	\$10.00	\$120.00	38.37%	\$46					
2014	\$10.00	\$120,00	38.37%	\$46					
2015	\$10.00	\$120.00	38.37%	\$46					
2016	\$10.00	\$120.00	38.37%	\$46					
2017	\$10.00	\$120.00	38,37%	\$46					
2018	\$10.00	\$120.00	38.37%	\$46					
2019	\$10.00	\$120.00	38.37%	\$46					
2020	\$10.00	\$120.00	38.37%	\$46					
2021	\$10.00	\$120.00	38,37%	\$46					
2022	\$10.00	\$120.00	38,37%	\$46					
2023	\$10,00	\$120.00	38.37%	\$46					
2024	\$10.00	\$120.00	38 37%	\$46					

			inv	estment Ca	rrying Costs	•		
1	2	3	4	5	6	7	8	6*7*8
	Supply	Development	Service		Customer	Avg Cost	Ratio of Therms	Carrying Cho
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svc
2005	\$50	\$140	\$500	\$163	\$853	8.83%	38.37%	\$29
2006	\$49	\$136	\$478	\$154	\$817	8.83%	38.37%	\$28
2007	\$48	\$132	\$457	\$146	\$783	8.83%	38.37%	\$27
2008	\$47	\$128	\$437	\$138	\$750	8.83%	38.37%	\$25
2009	\$46	\$124	\$418	\$131	\$719	8.83%	38.37%	\$24
2010	\$45	\$121	\$400	\$124	\$690	8.83%	38.37%	\$23
2011	\$44	\$118	\$382	\$117	\$661	8.83%	38.37%	\$22
2012	\$43	\$115	\$365	\$111	\$634	8.83%	38.37%	\$21
2013	\$42	\$112	\$349	\$105	\$608	8.83%	38.37%	521
2014	\$41	\$109	\$334	\$99	\$583	8.83%	38,37%	\$20
2015	\$40	\$106	\$319	\$94	\$559	8.83%	38.37%	\$19
2016	\$39	\$103	\$305	\$89	\$536	8.83%	38.37%	\$18
2017	\$38	\$100	\$292	\$84	\$514	8.83%	38.37%	\$17
2018	\$37	\$97	\$279	\$79	\$492	8.83%	38.37%	\$17
2019	\$36	\$94	\$267	\$75	\$472	8.83%	38.37%	\$16
2020	\$35	\$91	\$255	\$71	\$452	8.83%	38.37%	\$15
2021	\$34	\$88	\$244	\$67	\$433	8.83%	38.37%	\$15
2022	\$33	\$86	\$233	\$63	\$415	8.83%	38.37%	\$14
2023	\$32	\$84	\$223	\$60	\$399	8.83%	38.37%	\$14
2024	\$31	\$82	\$213	\$57	\$383	8,83%	38.37%	\$13

			Increr	nen	tal Cust	ome	r Cost	s		
1	2	3	4	5=3*4 6		7	8=6*7	5+8		
	Adm.	Annual	Ratio Therms To	Cı	ustomer	С	8 M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed		Costs		Cost	Total Consumed	Cost	Adm. & Main O&M
2005	\$2.61	\$31	38,37%	\$	11.90	\$	29	38,37%	\$11	\$23
2006	\$2.67	\$32	38.37%	\$	12.28	5	30	38.37%	\$12	\$24
2007	\$2.74	\$33	38,37%	\$	12.66	\$	31	38.37%	\$12	\$24
2008	\$2.80	\$34	38.37%	\$	13,05	\$	31	38,37%	\$12	\$25
2009	\$2.87	\$34	38,37%	\$	13.05	5	32	38.37%	\$12	\$25
2010	\$2.94	\$35	38.37%	\$	13,43	\$	33	38.37%	\$13	\$26
2011	\$3.01	\$36	38.37%	S	13.81	\$	34	38,37%	\$13	\$27
2012	\$3.08	\$37	38,37%	\$	14.20	\$	35	38.37%	\$13	\$27
2013	53.16	\$36	38.37%	\$	14.58	5	35	38.37%	\$14	\$28
2014	\$3.23	\$39	38.37%	\$	14.97	5	36	38.37%	\$14	\$29
2015	\$3,31	\$40	38.37%	\$	15.35	\$	37	38,37%	\$14	\$30
2016	\$3.39	\$41	38,37%	S	15,73	\$	38	38.37%	\$15	\$30
2017	\$3,47	\$42	38.37%	\$	16.12	5	39	38.37%	\$15	\$31
2018	\$3.55	\$43	38.37%	\$	16.50	\$	40	38.37%	\$15	\$32
2019	\$3.64	\$44	38.37%	\$	16.88	5	41	38.37%	\$16	\$33
2020	\$3.73	\$45	38.37%	S	17.27	\$	42	38.37%	\$16	\$33
2021	\$3.81	\$46	38.37%	\$	17.65	\$	43	38.37%	\$16	\$34
2022	\$3.91	\$47	38.37%	\$	18.04	\$	44	38.37%	\$17	\$35
2023	\$4.00	\$48	38.37%	\$	18.42	5	45	38.37%	\$17	\$36
2024	\$4.10	\$49	38.37%	\$	18.80	5	46	38.37%	\$18	\$36

	Gas C	osts	
1	2	3	2*3
	Therms	Per Therm	Gas Supply
Year		Supply Cost	Cost
2005	150	1.1900	\$179
2006	150	\$1.2186	\$183
2007	150	\$1.2478	\$187
2008	150	\$1,2778	\$192
2009	150	\$1,3084	\$196
2010	150	\$1.3398	\$201
2011	150	\$1.3720	\$206
2012	150	\$1.4049	\$211
2013	150	\$1.4386	\$216
2014	150	\$1,4731	\$221
2015	150	\$1,5085	\$226
2016	150	\$1.5447	\$232
2017	150	\$1,5818	\$237
2018	150	\$1.6197	\$243
2019	150	\$1.6586	\$249
2020	150	\$1,6984	\$255
2021	150	\$1.7392	\$261
2022	150	\$1.7809	\$267
2023	150	\$1.8237	\$274
2024	150	\$1.8674	\$280

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Cost Effective Results

Appliance Type

Tankless Water Heating

			Benefits	i					Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1			· · · · · · · · · · · · · · · · · · ·					Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$536	\$450	\$36	\$1,022	\$950	(\$314)	\$400	\$36	\$196	\$62	\$45	\$1,375
2006	2	\$543	0	\$37	\$580	0	0	0	\$37	\$201	\$62	\$45	\$345
2007	3	\$550	0	\$38	\$588	0	0	0	\$38	\$206	\$62	\$45	\$350
2008	4	\$557	0	\$39	\$596	0	0	0	\$39	\$211	\$62	\$45	\$356
2009	5	\$564	0	\$40	\$604	0	0	0	\$40	\$216	\$62	\$45	\$362
2010	6	\$571	0	\$41	\$612	0	0	0	\$41	\$221	\$62	\$45	\$368
2011	7	\$578	0	\$42	\$620	0	0	0	\$42	\$226	\$62	\$45	\$375
2012	8	\$585	0	\$43	\$628	0	0	0	\$43	\$232	\$62	\$45	\$381
2013	9	\$592	0	\$44	\$636	0	0	0	\$44	\$237	\$62	\$45	\$388
2014	10	\$599	0	\$45	\$644	0	0	0	\$45	\$243	\$62	\$45	\$394
2015	11	\$607	0	\$46	\$652	0	0	0	\$46	\$249	\$62	\$45	\$401
2016	12	\$614	0	\$47	\$660	0	0	0	\$47	\$255	\$62	\$45	\$408
2017	13	\$621	0	\$48	\$669	0	0	0	\$48	\$261	\$62	\$45	\$416
2018	14	\$628	100	\$49	\$777	1,324	(438)	348	\$49	\$267	\$62	\$45	\$1,658
2019	15	\$635	0	\$50	\$685	0	0	0	\$50	\$274	\$62	\$45	\$431
2020	16	\$642	0	\$ 51	\$693	0	0	0	\$51	\$280	\$62	\$45	\$438
2021	17	\$649	0	\$53	\$702	0	0	0	\$53	\$287	\$62	\$45	\$446
2022	18	\$656	0	\$54	\$710	0	0	0	\$54	\$294	\$62	\$45	\$455
2023	19	\$663	0	\$55	\$718	0	0	0	\$55	\$301	\$62	\$45	\$463
2024	20	\$670	0	\$56	\$727	0	0	0	\$56	\$308	\$62	\$45	\$471

Present Value of Benefits \$6,621 Present Value of Costs \$5,147

Benefit/Cost 1.29
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Data

Appliance Type
Tankless Water Heating

 O&M expense
 2%
 PGA Gas Ra
 2%
 Customer Ch
 0

 Electric rates (fu
 2%
 PGA Base R
 0%

	Electric	KWH Cost - Ta	able 1	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
Α	В	С	D	B*C*(1+D)
2005	\$0.1020	4,773	10.00%	\$536
2006	\$0.1034	4,773	10.00%	\$543
2007	\$0.1047	4,773	10.00%	\$550
2008	\$0.1061	4,773	10.00%	\$557
2009	\$0.1074	4,773	10.00%	\$564
2010	\$0.1088	4,773	10.00%	\$571
2011	\$0.1101	4,773	10.00%	\$578
2012	\$0.1115	4,773	10.00%	\$585
2013	\$0.1128	4,773	10.00%	\$592
2014	\$0.1142	4,773	10.00%	\$599
2015	\$0.1156	4,773	10.00%	\$607
2016	\$0.1169	4,773	10.00%	\$614
2017	\$0.1182	4,773	10.00%	\$621
2018	\$0.1196	4,773	10.00%	\$628
2019	\$0.1209	4,773	10.00%	\$635
2020	\$0.1223	4,773	10.00%	\$642
2021	\$0.1236	4,773	10.00%	\$649
2022	\$0.1250	4,773	10.00%	\$656
2023	\$0.1263	4,773	10.00%	\$663
2024	\$0.1277	4,773	10.00%	\$670

		Gas Sur	ply Cost -	Table 2_		
	Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost	Year
	A	В	С	D	B*C*(1+D)	A
	2005	\$1.1900	150	10.00%	\$196	2005
	2006	\$1.2186	150	10.00%	\$201	2000
	2007	\$1.2478	150	10.00%	\$206	2007
	2008	\$1.2778	150	10.00%	\$211	2008
	2009	\$1.3084	150	10.00%	\$216	2009
	2010	\$1.3398	150	10.00%	\$221	2010
	2011	\$1.3720	150	10.00%	\$226	201
	2012	\$1.4049	150	10,00%	\$232	2012
	2013	\$1.4386	150	10.00%	\$237	2013
i	2014	\$1.4731	150	10.00%	\$243	2014
	2015	\$1.5085	150	10.00%	\$249	2015
İ	2016	\$1.5447	150	10.00%	\$255	2016
1	2017	\$1.5818	150	10.00%	\$261	2017
	2018	\$1.6197	150	10,00%	\$267	2018
i	2019	\$1.6586	150	10.00%	\$274	2019
	2020	\$1.6984	150	10.00%	\$280	2020
	2021	\$1.7392	150	10.00%	\$287	202
i	2022	\$1.7809	150	10.00%	\$294	202
	2023	\$1.8237	150	10.00%	\$301	2023

Gas Ene	rgy Charge	Table 3				Gas	s Customer C	harge - Tal	ole 3		
Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost	Year	Monthly Cust, Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro
В	. с	Đ	B*C*(1+D)	A	В	С	_D	E	D/E	G	C*(D
\$0.3767	150	10.00%	\$62	2005	\$10	\$120.00	150	443	33.86%	10.00%	
\$0.3767	150	10.00%	\$62	2006	\$10.00	\$120.00	150	443	33.86%	10.00%	;
\$0.3767	150	10.00%	\$62	2007	\$19.00	\$120.00	150	443	33.86%	10.00%	
\$0.3767	150	10.00%	\$62	2008	\$10.00	\$120.00	150	443	33.86%	10.00%	,
\$0.3767	150	10.00%	\$62	2009	\$10.00	\$120.00	150	443	33.86%	10.00%	,
\$0.3767	150	10.00%	\$62	2010	\$10.00	\$120.00	150	443	33.86%	10.00%	,
\$0,3767	150	10.00%	\$62	2011	\$10.00	\$120.00	150	443	33.86%	10.00%	
\$0,3767	150	10.00%	\$62	2012	\$10.00	\$120.00	150	443	33.86%	10.00%	
\$0.3767	150	10.00%	\$62	2013	\$10.00	\$120.00	150	443	33.86%	10.00%	
0.3767	150	10,00%	\$62	2014	\$10.00	\$120.00	150	443	33.86%	10.00%	
60,3767	150	10.00%	\$62	2015	\$10.00	\$120.00	150	443	33.86%	10.00%	
\$0,3767	150	10,00%	\$62	2016	\$10.00	\$120.00	150	443	33.86%	10.00%	
0.3767	150	10,00%	\$62	2017	\$10.00	\$120.00	150	443	33.86%	10.00%	
0.3767	150	10.00%	\$62	2018	\$10.00	\$120.00	150	443	33.86%	10.00%	,
0.3767	150	10.00%	\$62	2019	\$10.00	\$120.00	150	443	33.86%	10.00%	
0,3767	150	10.00%	\$62	2020	\$10.00	\$120.00	150	443	33.86%	10.00%	
0.3767	150	10.00%	\$62	2021	\$10.00	\$120.00	150	443	33.86%	10.00%	
0.3767	150	10.00%	\$62	2022	\$10.00	\$120.00	150	443	33.86%	10,00%	
\$0.3767	150	10.00%	\$62	2023	\$10.00	\$120.00	150	443	33.86%	10.00%	
\$0.3767	150	10.00%	\$62	2024	\$10.00	\$120.00	150	443	33.86%	10,00%	

Peoples Gas System Energy Conservation Program June 21, 2006

Residential New Construction Program
RIM Test and Participants Test Results

For

Heating Systems

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Results

Appliance Type

Heating System

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy Charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
11	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$67	\$212	\$48	\$327	\$212	\$30	\$24	\$350	\$616
2003	\$67	\$217	\$48	\$332	\$217	\$29	\$25	\$0	\$271
2004	\$67	\$222	\$48	\$337	\$222	\$28	\$26	\$0	\$275
2005	\$67	\$227	\$48	\$343	\$227	\$27	\$26	\$0	\$280
2006	\$67	\$233	\$48	\$348	\$233	\$26	\$27	\$0	\$285
2007	\$ 67	\$238	\$48	\$354	\$238	\$24	\$27	\$0	\$290
2008	\$67	\$244	\$48	\$359	\$244	\$23	\$28	\$0	\$296
2009	\$67	\$250	\$48	\$365	\$250	\$22	\$29	\$0	\$301
2010	\$67	\$256	\$48	\$371	\$256	\$22	\$29	\$0	\$307
2011	\$67	\$262	\$48	\$377	\$262	\$21	\$30	\$0	\$313
2012	\$67	\$269	\$48	\$384	\$269	\$20	\$31	\$0	\$319
2013	\$67	\$275	\$48	\$390	\$275	\$19	\$32	\$0	\$326
2014	\$67	\$282	\$48	\$397	\$282	\$18	\$33	\$0	\$332
2015	\$67	\$288	\$48	\$404	\$288	\$17	\$33	\$0	\$339
2016	\$67	\$295	\$48	\$410	\$295	\$17	\$34	\$0	\$346
2017	\$67	\$302	\$48	\$418	\$302	\$16	\$35	\$0	\$353
2018	\$67	\$310	\$48	\$425	\$310	\$15	\$36	\$0	\$361
2019	\$67	\$317	\$48	\$432	\$317	\$15	\$36	\$0	\$368
2020	\$67	\$325	\$48	\$440	\$325	\$14	\$37	\$0	\$376
2021	\$67	\$332	\$48	\$448	\$332	\$14	\$38	\$0	\$384

Present Value of Benefits

\$3,610

Present Value of Costs

\$3,314

Benefit/Cost	
Ratio	1.09

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Calculated data

2.80%

2.80% 4.40% 5.40%

Appliance Type Heating System

Table 1

PGA Rate Escalator Base Rate Escalator Electric Rate escalator 2.4% 0% 2.4%

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter Customer Charge - Gas Customer Charge - Electric Inflation factor

Table 2

0% 0% 2%

Revenue - Energy Charge

1	Revenue - Cos	t of Gas	
1	2	4	2*3
Year	Therms	PGA Rate	Total Rate
2005	178	\$1,1900	\$212
2006	178	\$1,2186	\$217
2007	178	\$1.2478	\$222
2008	178	\$1,2778	\$227
2009	178	\$1,3084	\$233
2010	178	\$1,3398	\$238
2011	178	\$1,3720	\$244
2012	178	\$1,4049	\$250
2013	178	\$1,4386	\$256
2014	178	\$1,4731	\$262
2015	178	\$1,5085	\$269
2016	178	\$1,5447	\$275
2017	178	\$1.5818	\$282
2018	178	\$1.6197	\$288
2019	178	\$1.6586	\$295
2020	178	\$1.6984	\$302
2021	178	\$1.7392	\$310
2022	178	\$1,7809	\$317
2023	178	\$1,8237	\$325
2024	178	\$1,8674	\$332

1	2	3	4	4*3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust, Chg
2005	\$10.00	\$120.00	40.18%	\$48
2006	\$10.00	\$120.00	40.18%	\$48
2007	\$10.00	\$120.00	40.18%	\$48
2008	\$10,00	\$120.00	40.18%	\$48
2009	\$10.00	\$120.00	40.18%	\$48
2010	\$10.00	\$120.00	40.18%	\$48
2011	\$10.0D	\$120.00	40.18%	\$48
2012	\$10.00	\$120.00	40.18%	\$48
2013	\$10.00	\$120.00	40.18%	\$48
2014	\$10,00	\$120.00	40.18%	\$48
2015	\$10.00	\$120.00	40.18%	\$48
2016	\$10.00	\$120.00	40.18%	\$48
2017	\$10,00	\$120.00	40.18%	\$48
2018	\$10.00	\$120.00	40.18%	\$48
2019	\$10.00	\$120.00	40.18%	\$48
2020	\$10.00	\$120.00	40.18%	\$48
2021	\$10.00	\$120.00	40.18%	\$48
2022	\$10.00	\$120.00	40.18%	\$48
2023	\$10.00	\$120.00	40,18%	\$4B
2024	\$10.00	\$120.00	40.18%	\$48

Investment Carrying Costs										
1	2	3	4	5	6	7	8	6*7*8		
	Supply	Developmen	Service		Customer	Ava Cost	Ratio of Therms	Carrying Chr		
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total			
2005	\$50	\$140	\$500	\$163	\$853	8.83%	40.18%	\$30		
2006	\$49	\$136	\$478	\$154	\$817	8.83%	40.18%	\$29		
2007	\$48	\$132	8457	\$146	\$783	8.83%	40.18%	\$28		
2008	\$47	\$128	\$437	\$138	\$750	8.83%	4D.18%	\$27		
2009	\$46	\$124	\$418	\$131	\$719	8.83%	40.18%	\$26		
2010	\$45	\$121	\$400	\$124	\$690	8.83%	40.18%	\$24		
2011	\$44	\$118	\$382	\$117	\$661	8,83%	40.18%	\$23		
2012	\$43	\$115	\$365	\$111	\$634	8.83%	40.18%	\$22		
2013	\$42	\$112	\$349	\$105	\$608	8.83%	40.18%	\$22		
2014	\$41	\$109	\$334	\$99	\$583	8.83%	40.18%	\$21		
2015	\$40	\$106	\$319	\$94	\$559	8.83%	40.18%	\$20		
2016	\$39	\$103	\$305	\$89	\$536	8.83%	40,18%	\$19		
2017	\$38	\$100	\$292	\$84	\$514	8.83%	40,18%	\$18		
2018	\$37	\$97	\$279	\$79	\$492	8.83%	40.18%	\$17		
2019	\$36	\$94	\$267	\$75	\$472	8.83%	40.18%	\$17		
2020	\$35	\$91	\$255	\$71	\$452	8.83%	40.18%	\$16		
2021	\$34	888	\$244	\$67	\$433	8.83%	40.18%	\$15		
2022	\$33	\$86	\$233	\$63	\$415	8.83%	40.18%	\$15		
2023	\$32	\$84	\$223	\$60	\$399	8.83%	40.18%	\$14		
2024	\$31	\$82	\$213	\$57	\$383	8.83%	40,18%	\$14		

			Inc	remo	ental Cu	stom	er Cos	ts		
1	2	3	4		5=3*4	6		7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Ct	ıstomer	0	8 M	Ratio Therms To	Majn	New Customer
Year	Cost	Adm. Cost	Total Consumed		Costs	C	ost	Total Consumed	Cost	_ Adm. & Main O&N
2005	\$2.61	\$31	40.18%	s	12.46	\$.	29	40.18%	\$12	\$24
2006	\$2.67	\$32	40.18%	\$	12.86	\$	30	40.18%	\$12	\$25
2007	\$2.74	\$33	40.18%	\$	13,26	\$	31	40.18%	\$12	\$26
2008	\$2.80	\$34	40.18%	\$	13.66	\$	31	40.18%	\$13	\$26
2009	\$2.87	\$34	40.18%	s	13,66	\$	32	40,18%	\$13	\$27
2010	\$2.94	\$35	40.18%	s	14.06	\$	33	40.18%	\$13	\$27
2011	\$3.01	\$36	40.18%	s	14.47	\$	34	40.18%	\$14	\$28
2012	\$3.08	\$37	40.18%	Ş	14.87	\$	35	40.18%	\$14	\$29
2013	\$3,16	\$38	40.18%	\$	15.27	\$	35	40.18%	\$14	\$29
2014	\$3.23	\$39	40.18%	\$	15.67	\$	36	40.18%	\$15	\$30
2015	\$3.31	\$40	40.18%	\$	16,07	\$	37	40.18%	\$15	\$31
2016	\$3,39	\$41	40.18%	s	16.47	\$	38	40.18%	\$15	\$32
2017	\$3,47	542	40.18%	\$	16.88	Ş	39	40.18%	\$16	\$33
2018	\$3.55	\$43	40.18%	\$	17.28	\$	40	40.18%	\$16	\$33
2019	53,64	\$44	40.18%	s	17,68	\$	41	40.18%	\$16	\$34
2020	\$3.73	\$45	40.18%	s	18.08	\$	42	40.18%	\$17	\$35
2021	\$3.61	\$46	40.18%	\$	18.48	\$	43	40.18%	\$17	236
2022	\$3.91	\$47	40.18%	\$	18.88	\$	44	40.18%	\$18	\$36
2023	\$4.00	\$48	40.18%	\$	19.29	\$	45	40.18%	\$18	\$37
2024	\$4.10	\$49	40.18%	s	19.69	\$	46	40.18%	\$18	\$38

	Gas	Costs	
1	2	3	2*3
	Therms	Per Therm	Gas Supply
Year		Supply Cost	Cost
2005	178	1.1900	\$212
2006	178	\$1.2186	\$217
2007	178	\$1.2478	\$222
2008	178	\$1.2778	\$227
2009	178	\$1.3084	\$233
2010	178	\$1.3398	\$238
2011	178	\$1,3720	\$244
2012	178	\$1,4049	\$250
2013	178	\$1,4386	\$256
2014	178	\$1.4731	\$262
2015	178	\$1.5085	\$269
2016	178	\$1,5447	\$275
2017	178	\$1.5818	\$282
2018	178	\$1.6197	\$288
2019	178	\$1.6586	\$295
2020	178	\$1.6984	\$302
2021	178	\$1.7392	\$310
2022	178	\$1.7809	\$317
2023	178	\$1.8237	\$325
2024	178	\$1.8674	\$332

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Cost Effective Results

Appliance Type

Heating System

			Benefits						Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$353	\$350	\$192	\$895	\$2,052	(\$3,850)	\$1,600	\$192	\$233	\$74	\$53	\$354
2006	2	\$358	0	\$197	\$555	0	0	0	\$197	\$239	\$74	\$53	\$562
2007	3	\$363	0	\$201	\$564	0	0	0	\$201	\$244	\$74	\$53	\$572
2008	4	\$368	0	\$206	\$574	0	0	0	\$206	\$250	\$74	\$53	\$583
2009	5	\$372	0	\$211	\$583	0	0	0	\$211	\$256	\$74	\$53	\$594
2010	6	\$377	0	\$216	\$593	0	0	0	\$216	\$262	\$74	\$53	\$605
2011	7	\$382	0	\$221	\$603	0	0	0	\$221	\$269	\$74	\$ 53	\$617
2012	8	\$386	0	\$227	\$613	0	0	0	\$227	\$275	\$74	\$53	\$629
2013	9	\$391	0	\$232	\$623	0	0	0	\$232	\$282	\$74	\$53	\$641
2014	10	\$396	0	\$238	\$633	0	0	0	\$238	\$288	\$74	\$53	\$653
2015	11	\$400	0	\$243	\$644	0	0	0	\$243	\$295	\$74	\$53	\$666
2016	12	\$405	0	\$249	\$654	0	0	0	\$249	\$302	\$74	\$ 53	\$678
2017	13	\$410	0	\$255	\$665	0	0	0	\$255	\$310	\$74	\$53	\$692
2018	14	\$414	100	\$261	\$776	2,860	(5,366)	2,021	\$261	\$317	\$74	\$53	\$220
2019	15	\$419	0	\$268	\$687	0	0	0	\$268	\$325	\$74	\$53	\$719
2020	16	\$424	0	\$274	\$698	0	0	0	\$274	\$333	\$74	\$53	\$733
2021	17	\$428	0	\$281	\$709	0	0	0	\$281	\$341	\$74	\$53	\$748
2022	18	\$433	0	\$287	\$720	0	0	0	\$287	\$349	\$74	\$53	\$763
2023	19	\$438	0	\$294	\$732	0	0	0	\$294	\$357	\$74	\$53	\$778
2024	20	\$442	0	\$301	\$744	0	0	0	\$301	\$366	\$74	\$53	\$794

Present Value \$6,399 of Benefits Present Value \$5,869 of Costs

Benefit/Cost 1.09
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Data

Appliance Type Heating System

Escalators 0.0% Electric rate: 2.4% Customer Ch O&M expense 2.4% 0.0% PGA Base R

	Electric P	CWH Cost - Ta	ble 1				Gas Su	pply Cost	- Table 2	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost		Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
A	В	С	D	B*C*(1+D)		A	В	С	D	B*C*(1+D)
2005	\$0.1020	3,150	10.00%	\$353		2005	\$1.1900	178	10.00%	\$233
2006	\$0.1034	3,150	10.00%	\$358		2006	\$1.2186	178	10.00%	\$239
2007	\$0.1047	3,150	10.00%	\$363		2007	\$1.2478	178	10.00%	\$244
2008	\$0,1061	3,150	10.00%	\$368		2008	\$1.2778	178	10.00%	\$250
2009	\$0.1074	3,150	10.00%	\$372		2009	\$1.3084	178	10.00%	\$256
2010	\$0.1088	3,150	10.00%	\$377		2010	\$1.3398	178	10.00%	\$262
2011	\$0.1101	3,150	10,00%	\$382		2011	\$1.3720	178	10.00%	\$269
2012	\$0.1115	3,150	10.00%	\$386		2012	\$1,4049	178	10.00%	\$275
2013	\$0.1128	3,150	10.00%	\$391		2013	\$1.4386	178	10.00%	\$282
2014	\$0.1142	3,150	10.00%	\$396		2014	\$1,4731	178	10,00%	\$288
2015	\$0.1155	3,150	10.00%	\$400		2015	\$1.5085	178	10.00%	\$295
2016	\$0.1169	3,150	10.00%	\$405		2016	\$1.5447	178	10.00%	\$302
2017	\$0.1182	3,150	10.00%	\$410		2017	\$1.5818	178	10.00%	\$310
2018	\$0.1196	3,150	10.00%	\$414		2018	\$1.6197	178	10.00%	\$317
2019	\$0.1209	3,150	10.00%	\$419	'	2019	\$1.6586	178	10,00%	\$325
2020	\$0.1223	3,150	10.00%	\$424		2020	\$1.6984	178	10.00%	\$333
2021	\$0.1236	3,150	10.00%	\$428		2021	\$1.7392	178	10.00%	\$341
2022	\$0.1250	3,150	10.00%	\$433		2022	\$1.7809	178	10.00%	\$349
2023	\$0.1263	3,150	10.00%	\$438		2023	\$1.8237	178	10.00%	\$357
2024	\$0.1277	3,150	10.00%	\$442		2024	\$1.8674	178	10.00%	\$366

	Gas En	ergy Charge - 1	Table 3		ĺ	_		Gas	s Customer C	harge - Tal	ole 3		
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost		Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	. С	D	B*C*(1+D)		A	В	С	D	E	D/E	G	C*(D/E)*(1+Z
2005	\$0.3767	178	10.00%	\$74		2005	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2006	\$0.3767	178	10,00%	\$74		2006	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2007	\$0.3767	178	10.00%	\$74		2007	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2008	\$0.3767	178	10.00%	\$74	Ì	2008	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2009	\$0.3767	178	10.00%	\$74		2009	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2010	\$0.3767	178	10.00%	\$74		2010	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2011	\$0,3767	178	10.00%	\$74		2011	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2012	\$0,3767	178	10.00%	\$74	Ì	2012	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2013	\$0.3767	178	10,00%	\$74		2013	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2014	\$0.3767	178	10.00%	\$74		2014	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2015	\$0.3767	178	10.00%	\$74		2015	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2016	\$0.3767	178	10.00%	\$74		2016	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2017	\$0.3767	178	10.00%	\$74		2017	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2018	\$0.3767	178	10.00%	\$74	Ì	2018	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2019	\$0,3767	178	10.00%	\$74		2019	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2020	\$0.3767	178	10.00%	\$74		2020	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2021	\$0.3767	178	10.00%	\$74		2021	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2022	\$0.3767	178	10.00%	\$74		2022	\$19.00	\$120.00	178	443	40.18%	10.00%	\$53
2023	\$0.3767	178	10.00%	\$74	-	2023	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2024	\$0.3767	178	10,00%	\$74		2024	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53

Peoples Gas System Energy Conservation Program June 21, 2006

Residential New Construction Program RIM Test and Participants Test Results

For

Clothes Drying Appliances

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Results

Appliance Type

Clothes Drying

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$19	\$60	\$14	\$92	\$60	\$9	\$7	\$100	\$175
2003	\$19	\$61	\$14	\$93	\$61	\$8	\$7	\$0	\$ 76
2004	\$19	\$62	\$14	\$95	\$62	\$8	\$7	\$0	\$77
2005	\$19	\$64	\$14	\$96	\$64	\$7	\$7	\$0	\$7 9
2006	\$19	\$65	\$14	\$98	\$65	\$7	\$7	\$0	\$80
2007	\$19	\$67	\$14	\$99	\$67	\$7	\$8	\$0	\$82
2008	\$19	\$69	\$14	\$101	\$69	\$7	\$8	\$0	\$83
2009	\$19	\$70	\$14	\$103	\$70	\$6	\$8	\$0	\$85
2010	\$19	\$72	\$14	\$104	\$72	\$6	\$8	\$0	\$86
2011	\$19	\$74	\$14	\$106	\$74	\$6	\$8	\$0	\$88
2012	\$19	\$75	\$14	\$108	\$75	\$6	\$ 9	\$0	\$90
2013	\$19	\$77	\$14	\$110	\$77	\$5	\$9	\$0	\$91
2014	\$ 19	\$79	\$14	\$111	\$79	\$5	\$9	\$0	\$93
2015	\$19	\$81	\$14	\$113	\$81	\$5	\$9	\$0	\$95
2016	\$19	\$83	\$14	\$115	\$83	\$5	\$10	\$0	\$ 97
2017	\$19	\$85	\$14	\$117	\$85	\$5	\$10	\$0	\$9 9
2018	\$19	\$87	\$14	\$119	\$87	\$4	\$10	\$0	\$101
2019	\$19	\$89	\$14	\$121	\$89	\$4	\$10	\$0	\$103
2020	\$19	\$91	\$14	\$124	\$91	\$4	\$10	\$0	\$106
2021	\$19	\$93	\$14	\$126	\$93	\$4	\$11	\$0	\$108

Present Value of Benefits

\$1,014

Present Value of Costs

\$932

Benefit/Cost
Ratio 1.09

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Calculated data

Appliance Type
Clothes Drying

 PGA Rate Escalator
 2.4%

 Base Rate Escalator
 0%

 Electric Rate escalator
 2.4%

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter 2.80% 2.80% 4.40% 5.40% Customer Charge - Gas Customer Charge - Electric Inflation factor 0% 0% 2%

Table 1

R	Revenue - Energy Charge									
1	2	3	2*3							
Year	Therms	Base Rate	Total Rate							
2005	50	\$0.3767	\$19							
2006	50	\$0.3767	\$19							
2007	50	\$0.3767	\$19							
2008	50	\$0,3767	\$19							
2009	50	\$0.3767	\$19							
2010	50	\$0.3767	\$19							
2011	50	\$0.3767	\$19							
2012	50	\$0.3767	\$19							
2013	50	\$0.3767	\$19							
2014	50	\$0.3767	\$19							
2015	50	\$0.3767	\$19							
2016	50	\$0,3767	\$19							
2017	50	\$0,3767	\$19							
2018	50	\$0.3767	\$19							
2019	50	\$0.3767	\$19							
2020	50	\$0.3767	\$19							
2021	50	\$0.3767	\$19							
2022	50	\$0.3767	\$19							
2023	50	\$0.3767	\$19							
2024	50	\$0.3767	\$19							

Revenue - Cost of Gas										
_1	2	4	2*3							
Year	Thems	PGA Rate	Total Rate							
2005	50	\$1,1900	\$60							
2006	50	\$1,2186	\$61							
2007	50	\$1,2478	\$62							
2008	50	\$1,2778	\$64							
2009	50	\$1,3084	\$65							
2010	50	\$1,3398	\$67							
2011	50	\$1,3720	\$69							
2012	50	\$1,4049	\$70							
2013	50	\$1,4386	\$72							
2014	50	\$1,4731	\$74							
2015	50	\$1,5085	\$75							
2016	50	\$1.5447	\$77							
2017	59	\$1.5818	\$79							
2018	50	\$1,6197	\$81							
2019	50	\$1.6586	\$83							
2020	50	\$1.6984	\$85							
2021	50	\$1,7392	\$87							
2022	50	\$1,7809	\$89							
2023	50	\$1.8237	\$91							
2024	50	\$1.8674	\$93							

1	2	3	4	4*3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust, Chg	To Total	Cust, Chg
2005	\$10.00	\$120.00	11.29%	\$14
2006	\$10.00	\$120,00	11.29%	\$14
2007	\$10.00	\$120,00	11.29%	\$14
2008	\$10.00	\$120.00	11.29%	\$14
2009	\$10.00	\$120.00	11.29%	\$14
2010	\$10,00	\$120.00	11.29%	\$14
2011	\$10.00	\$120.00	11.29%	\$14
2012	\$10.00	\$120.00	11,29%	\$14
2013	\$10.00	\$120.00	11.29%	\$14
2014	\$10.00	\$120.00	11.29%	\$14
2015	\$10,00	\$120.00	11.29%	\$14
2016	\$10.00	\$120.00	11.29%	\$14
2017	\$10.00	\$120.00	11.29%	\$14
2018	\$10.00	\$120.00	11.29%	\$14
2019	\$10.00	\$120.00	11.29%	\$14
2020	\$10,00	\$120.00	11.29%	\$14
2021	\$10.00	\$120.00	11.29%	\$14
2022	\$10.00	\$120.00	11.29%	\$14
2023	\$10.00	\$120,00	11.29%	\$14
2024	\$10.00	\$120.00	11.29%	\$14

			Inves	stment Car	rying Costs			
1	2	3	4	5	6	7	- 8	6*7*8
	Supply	Development	Service		Customer	Avg Cost	Ratio of Therms	Carrying Cho
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svc
2005	\$50	\$140	\$500	\$163	\$853	8.83%	11.29%	\$9
2006	\$49	\$136	\$478	\$154	\$817	8.83%	11.29%	\$8
2007	\$48	\$132	\$457	\$146	\$783	8.83%	11.29%	\$8
2008	\$47	\$128	\$437	\$138	\$750	8.83%	11,29%	\$7
2009	\$46	\$124	\$418	\$131	\$719	8.83%	11.29%	\$7
2010	\$45	\$121	\$400	\$124	\$690	8.83%	11.29%	\$7
2011	\$44	\$118	\$382	\$117	\$661	8.83%	11.29%	\$7
2012	\$43	\$115	\$365	\$111	\$634	8.83%	11.29%	\$6
2013	\$42	\$112	\$349	\$105	\$608	8.83%	11.29%	\$6
2014	\$41	\$109	\$334	299	\$583	8.83%	11.29%	\$6
2015	\$40	\$106	\$319	\$94	\$559	8.83%	11.29%	\$6
2016	\$39	\$103	\$305	\$89	\$536	8.83%	11.29%	\$5
2017	\$36	\$100	\$292	\$84	\$514	8.83%	11,29%	\$5
2018	\$37	\$97	\$279	\$79	\$492	8.83%	11.29%	\$5
2019	\$36	\$94	\$267	375	\$472	8.83%	11.29%	\$5
2020	\$35	\$91	\$255	871	\$452	8.83%	11.29%	\$5
2021	\$34	\$88	\$244	\$67	\$433	8.83%	11.29%	\$4
2022	\$33	\$86	\$233	\$63	\$415	8.83%	11.29%	54
2023	\$32	\$84	\$223	\$60	\$399	8.83%	11.29%	\$4
2024	\$31	\$82	\$213	\$57	\$383	8.83%	11,29%	\$4

			Incre	men	tal Cusi	tome	r Cost	S		
1	2	3	4		i=3*4		6	7	8≈6*7	5+8
	Adm.	Annual	Ratio Therms To	Çu	stomer	0	& M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cest	Total Consumed	(Costs	C	Cast	Total Consumed	Cost	Adm. & Main O&N
2005	\$2.61	\$31	11.29%	\$	3.50	\$	29	11.29%	\$3	\$7
2006	\$2.67	\$32	11.29%	\$	3.61	\$	30	11.29%	\$3	\$7
2007	\$2.74	\$33	11.29%	\$	3.72	\$	31	11.29%	\$3	\$7
2008	\$2.80	\$34	11.29%	\$	3.84	\$	31	11.29%	\$4	\$7
2009	\$2.87	\$34	11.29%	8	3.84	\$	32	11.29%	\$4	\$7
2010	\$2.94	\$35	11.29%	\$	3.95	\$	33	11.29%	\$4	\$8
2011	\$3.01	\$36	11.29%	\$	4.06	\$	34	11.29%	\$4	\$8
2012	\$3.08	\$37	11.29%	\$	4.18	\$	35	11.29%	\$4	\$8
2013	\$3.16	\$38	11.29%	S	4.29	\$	35	11.29%	\$4	\$8
2014	\$3.23	\$39	11.29%	\$	4.40	\$	36	11.29%	\$4	\$8
2015	\$3.31	\$40	11.29%	\$	4.51	\$	37	11.29%	\$4	\$9
2016	\$3.39	\$41	11.29%	\$	4.63	\$	38	11.29%	\$4	\$9
2017	\$3.47	\$42	11.29%	\$	4.74	\$	39	11.29%	\$4	\$9
2018	\$3.55	\$43	11.29%	\$	4.85	\$	40	11.29%	\$4	\$9
2019	\$3.64	\$44	11.29%	\$	4.97	\$	41	11,29%	\$5	\$10
2020	\$3.73	\$45	11.29%	\$	5.08	\$	42	11.29%	\$5	\$10
2021	\$3.81	\$46	11.29%	\$	5.19	\$	43	11.29%	\$5	\$10
2022	\$3.91	\$47	11.29%	\$	5.30	S	44	11.29%	\$5	\$10
2023	\$4.00	\$48	11.29%	\$	5.42	\$	45	11.29%	\$5	\$10
2024	\$4.10	\$49	11.29%	\$	5,53	\$	46	11.29%	\$5	\$11

ľable 5			
	Gas	Costs	
1	2	3	2*3
	Therms	Per Therrn	Gas Supply
Year		Supply Cost	Cost
2005	50	1.1900	\$60
2006	50	\$1.2186	\$61
2007	50	\$1.2478	\$62
2008	50	\$1.2778	\$64
2009	50	\$1.3084	\$65
2010	50	\$1.3398	\$67
2011	50	\$1.3720	\$69
2012	50	\$1.4049	\$70
2013	50	\$1.4386	\$72
2014	50	\$1.4731	\$74
2015	50	\$1.5085	\$75
2016	50	\$1.5447	\$77
2017	50	\$1.5818	\$79
2018	50	\$1.6197	\$81
2019	50	\$1,6586	\$83
2020	50	\$1.6984	\$85
2021	50	\$1.7392	\$87
2022	. 50	\$1.7809	\$89
2023	50	\$1.8237	\$91
2024	50	\$1.8674	\$93

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Cost Effective Results

Appliance Type

Clothes Drying

			Benefits						Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$164	\$100	\$36	\$300	\$379	(\$454)	\$300	\$36	\$65	\$21	\$15	\$362
2006	2	\$167	0	\$37	\$203	0	0	0	\$37	\$67	\$21	\$15	\$140
2007	3	\$169	0	\$38	\$207	0	0 _	0	\$38	\$69	\$21	\$15	\$142
2008	4	\$171	0	\$39	\$210	0	0	0	\$39	\$70	\$21	\$15	\$145
2009	5	\$173	0	\$40	\$213	0	0	0	\$40	\$72	\$21	\$15	\$147
2010	6	\$175	0	\$41	\$216	0	0	0	\$41	\$74	\$21	\$15	\$150
2011	7	\$177	0	\$42	\$219	0	0	0	\$42	\$75	\$21	\$15	\$153
2012	8	\$180	0	\$43	\$222	0	0	0	\$43	\$77	\$21	\$15	\$155
2013	9	\$182	0	\$44	\$225	0	0	0	\$44	\$79	\$21	\$15	\$158
2014	10	\$184	0	\$45	\$229	0	0	0	\$45	\$81	\$21	\$1 5	\$161
2015	11	\$186	0	\$46	\$232	0	0	0	\$46	\$83	\$ 21	\$ 15	\$164
2016	12	\$188	0	\$47	\$235	0	0	0	\$47	\$85	\$21	\$15	\$167
2017	13	\$191	0	\$48	\$238	0	0	0	\$48	\$87	\$21	\$15	\$170
2018	14	\$193	100	\$49	\$342	528	(633)	209	\$49	\$89	\$21	\$ 15	\$278
2019	15	\$195	0	\$50	\$245	0	0	0	\$50	\$91	\$21	\$15	\$177
2020	16	\$197	0	\$51	\$248	0	0	0	\$51	\$93	\$21	\$15	\$180
2021	17	\$199	0	\$53	\$252	0	0	0	\$53	\$96	\$21	\$15	\$184
2022	18	\$201	0	\$54	\$255	0	0	0	\$54	\$98	\$21	\$15	\$187
2023	19	\$204	0	\$55	\$259	0	0	0	\$55	\$100	\$21	\$15	\$191
2024	20	\$206	0	\$56	\$262	0	0	0	\$56	\$103	\$21	\$15	\$195

Present Value of Benefits \$2,312

Present Value of Costs \$1,781

Benefit/Cost 1.30
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Data

Appliance Type
Clothes Drying

 OSM expense
 2%
 PGA Gas Rates
 2%
 Customer Ch
 0%

 Electric rates {fu
 2%
 PGA Base Rate
 0%

		ctric KWH Cost -	Table (
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
<u>A</u>	В	С	D	B*C*(1+D)
2005	\$0.1020	1,465	10.00%	\$164
2006	\$0.1034	1,465	10.00%	\$167
2007	\$0.1047	1,465	10.00%	\$169
2008	\$0.1061	1,465	10.00%	\$171
2009	\$0.1074	1,465	10,00%	\$173
2010	\$0.1088	1,465	10.00%	\$175
2011	\$0.1101	1,465	10,00%	\$177
2012	\$0.1115	1,465	10.00%	\$180
2013	\$0.1128	1,465	10.00%	\$182
2014	\$0.1142	1,465	10.00%	\$184
2015	\$0.1155	1,465	10.00%	\$186
2016	\$0.1169	1,465	10.00%	\$188
2017	\$0.1182	1,465	10.00%	\$191
2018	\$0.1196	1,465	10.00%	\$193
2019	\$0.1209	1,465	10.00%	\$195
2020	\$0.1223	1,465	10.00%	\$197
2021	\$0.1236	1,465	10.00%	\$199
2022	\$0.1250	1,465	10.00%	\$201
2023	\$0.1263	1,465	10.00%	\$204
2024	\$0.1277	1,465	10.00%	\$206

	Gas Su	pply Cost	Table 2	
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
Α	В	С	D	B*C*(1+D)
2005	\$1.1900	50	10.00%	\$65
2006	\$1.2186	50	10.00%	\$67
2007	\$1.2478	50	10.00%	\$69
2008	\$1.2778	50	10.00%	\$70
2009	\$1.3084	50	10.00%	\$72
2010	\$1.3398	50	10.00%	\$74
2011	\$1.3720	50	10.00%	\$75
2012	\$1.4049	50	10.00%	\$77
2013	\$1.4386	50	10.00%	\$79
2014	\$1,4731	50	10.00%	\$81
2015	\$1.5085	50	10.00%	\$83
2016	\$1.5447	50	10.00%	\$85
2017	\$1.5818	50	10.00%	\$87
2018	\$1.6197	50	10.00%	\$89
2019	\$1.6586	50	10.00%	\$91
2020	\$1.6984	50	10.00%	\$93
2021	\$1.7392	50	10.00%	\$96
2022	\$1.7809	50	10.00%	892
2023	\$1.8237	50	10.00%	\$100

	Gas En	ergy Charge - T	abie 3	
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost
_A	.В	С	D	B*C*(1+D)
2005	\$0.3767	50	10.00%	\$21
2006	\$0.3767	50	10.00%	\$21
2007	\$0.3767	50	10.00%	\$21
2008	\$0.3767	50	10.00%	\$21
2009	\$0.3767	50	10.00%	\$21
2010	\$0.3767	50	10.00%	\$21
2011	\$0.3767	50	10.00%	\$21
2012	\$0.3767	50	10.00%	\$21
2013	\$0.3767	50	10.00%	\$21
2014	\$0,3767	50	10.00%	\$21
2015	\$0.3767	50	10.00%	\$21
2016	\$0.3767	50	10.00%	\$21
2017	\$0,3767	50	10.00%	\$21
2018	\$0.3767	50	10.00%	\$21
2019	\$0.3767	50	10.00%	\$21
2020	\$0.3767	50	10.00%	\$21
2021	\$0.3767	50	10.00%	\$21
2022	\$0.3767	50	10.00%	\$21
2023	\$0.3767	50	10.00%	\$21
2024	\$0.3767	50	10.00%	\$21

		Gas	s Customer C	harge - Tat	ole 3		
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	с	D	E	D/E	6	C*(D/E)*(1+Z
2005	\$10	\$120.00	50	443	11.29%	10.00%	\$15
2006	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2007	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2008	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2009	\$10.00	\$120.00	50	4 43	11.29%	10.00%	\$15
2010	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2011	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2012	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2013	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2014	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2015	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2016	\$10.00	\$120.00	50	443	11.29%	10,00%	\$15
2017	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2018	\$10.00	\$120.00	50	443	11.29%	10,00%	\$15
2019	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2020	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2021	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2022	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2023	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15
2024	\$10.00	\$120,00	50	443	11.29%	10.00%	\$15

Peoples Gas System Energy Conservation Program June 21, 2006

Residential New Construction Program
RIM Test and Participants Test Results

For

Cooking Appliances

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Results

	Ap	pli	anc	e Ty	ype
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Cooking

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$17	\$54	\$12	\$83	\$54	\$8	\$6	\$100	\$167
2003	\$17	\$55	\$12	\$84	\$55	\$7	\$6	\$0	\$68
2004	\$17	\$56	\$12	\$85	\$56	\$7	\$6	\$0	\$70
2005	\$17	\$57	\$12	\$87	\$57	\$7	\$7	\$0	\$71
2006	\$17	\$59	\$12	\$88	\$59	\$6	\$7	\$0	\$72
2007	\$17	\$60	\$12	\$89	\$60	\$6	\$7	\$0	\$73
2008	\$17	\$62	\$12	\$91	\$62	\$6	\$7	\$0	\$75
2009	\$17	\$63	\$12	\$92	\$63	\$6	\$7	\$0	\$76
2010	\$17	\$65	\$12	\$94	\$65	\$5	\$7	\$0	\$78
2011	\$17	\$66	\$12	\$95	\$66	\$5	\$8	\$0	\$79
2012	\$17	\$68	\$12	\$97	\$68	\$5	\$8	\$0	\$81
2013	\$17	\$70	\$12	\$99	\$70	\$5	\$8	\$0	\$82
2014	\$17	\$71	\$12	\$100	\$71	\$5	\$8	\$0	\$84
2015	\$17	\$73	\$12	\$102	\$73	\$4	\$8	\$0	\$86
2016	\$17	\$75	\$12	\$104	\$75	\$4	\$9	\$0	\$87
2017	\$17	\$76	\$12	\$106	\$76	\$4	\$9	\$0	\$89
2018	\$17	\$78	\$12	\$107	\$78	\$4	\$9	\$0	\$91
2019	\$17	\$80	\$ 12	\$109	\$80	\$4	\$9	\$0	\$93
2020	\$17	\$82	\$12	\$111	\$82	\$4	\$9	\$0	\$95
2021	\$17	\$84	\$12	\$113	\$84	\$3	\$10	\$0	\$97

Present Value of Benefits

\$913

Present Value of Costs \$848

Benefit/Cost	THE PARTY OF THE P	
Ratio		1.08

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program RIM Test - Calculated data

2.80%

2.80% 4.40% 5.40%

Appliance Type Cooking

PGA Rate Escalator Base Rate Escalator Electric Rate escalator

Depreciation Rate - Supply Main Depreciation Rate - Supply Main Depreciation Rate - Service Line Depreciation Rate - Meter Customer Charge - Gas Customer Charge - Electric Inflation factor

		nergy Char	
1	2	33	2*3
Year	Therms	Base Rate	Total Rate
2005	45	\$0.3767	\$17
2006	45	\$0.3767	\$17
2007	45	\$0.3767	317
2008	45	\$0.3767	\$17
2009	45	\$0.3767	\$17
2010	45	\$0.3767	\$17
2011	45	\$0.3767	\$17
2012	45	\$0.3767	\$17
2013	45	\$0.3767	\$17
2014	45	\$0.3767	\$17
2015	45	\$0.3767	\$17
2016	45	\$0.3767	\$17
2017	45	\$0.3767	\$17
2018	45	\$0.3767	\$17
2019	45	\$0.3767	\$17
2020	45	\$0.3767	\$17
2021	45	\$0.3767	\$17
2022	45	\$0.3767	\$17
2023	45	\$0.3767	\$17
2024	45	\$0,3767	\$17

Table 1a										
F	Revenue - Cost of Gas									
1	2	4	2*3							
	_									
Year	Therms	PGA Rate	Total Rate							
2005	45	\$1,1900	\$54							
2006	45	\$1.2186	\$55							
2007	45	\$1.2478	\$56							
2008	45	\$1,2778	\$57							
2009	45	\$1.3084	\$59							
2010	45	\$1,3398	\$60							
2011	45	\$1,3720	\$62							
2012	45	\$1,4049	\$63							
2013	45	\$1,4386	\$65							
2014	45	\$1,4731	\$66							
2015	45	\$1.5085	\$68							
2016	45	\$1.5447	\$70							
2017	45	\$1,5818	\$71							
2018	45	\$1,6197	\$73							
2019	45	\$1,6586	\$75							
2020	45	\$1,6984	\$76							
2021	45	\$1,7392	\$78							
2022	45	\$1,7809	\$80							
2023	45	\$1.8237	\$82							
2024	45	\$1.8674	\$84							

	Revo	nue - Custom	er Charge	
1	2	3	4	4*3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust, Chg	To Total	Cust. Chg
2005	\$10.00	\$120,00	10.16%	\$12
2006	\$10,00	\$120.00	10.16%	\$12
2007	\$10.00	\$120.00	10.16%	\$12
2008	\$10.00	\$120.00	10.16%	\$12
2009	\$10.00	\$120,00	10.16%	\$12
2010	\$10.00	\$120.00	10.16%	\$12
2011	\$10.00	\$120,00	10.16%	\$12
2012	\$10.00	\$120,00	10.16%	\$12
2013	\$10.00	\$120.00	10.16%	\$12
2014	\$10.00	\$120,00	10,16%	\$12
2015	\$10,00	\$120,00	10.16%	\$12
2016	\$10.00	\$120,00	10.16%	\$12
2017	\$10.00	\$120.00	10.16%	\$12
2018	\$10.00	\$120,00	10,16%	\$12
2019	\$10.00	\$120.00	10.16%	\$12
2020	\$10.00	\$120,00	10.16%	\$12
2021	\$10.00	\$120.00	10.16%	\$12
2022	\$10.00	\$120,00	10,16%	\$12
2023	\$10.00	\$120.00	10.16%	\$12
2024	\$10.00	\$120.00	10.16%	\$12

Υa	b	le	3

			Inve	estment Ca	rrying Costs			
1	2	3	4	5	- 6	7	8	6*7*8
	Supply	Development	Service		Customer	Avg Cost	Ratio of Therms	Carrying Ch
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svo
2005	\$50	\$140	\$500	\$163	\$853	8.83%	10.16%	\$8
2006	\$49	\$136	\$478	\$154	\$817	8.83%	10.16%	\$7
2007	\$48	\$132	\$457	\$146	\$783	8.83%	10.16%	\$7
2008	\$47	\$128	3437	\$138	\$750	8.83%	10,16%	\$7
2009	\$46	\$124	\$418	\$131	\$719	8.83%	10,16%	\$6
2010	\$45	\$121	3400	\$124	\$690	8.83%	10.16%	\$6
2011	\$44	\$118	\$382	\$117	\$661	8.83%	10,16%	\$6
2012	\$43	\$115	\$365	\$111	\$634	8.83%	10 16%	\$6
2013	\$42	\$112	\$349	\$105	\$608	8.83%	10.16%	\$5
2014	\$41	\$109	\$334	\$99	\$583	8,83%	10.16%	\$5
2015	\$4D	\$106	\$319	\$94	\$559	8.83%	10.16%	\$5
2016	\$39	\$103	\$305	\$89	\$536	8.83%	10.16%	\$5
2017	\$38	\$100	\$292	\$84	\$514	8.83%	10.16%	\$5
2018	\$37	\$97	\$279	\$79	\$492	8.83%	10.16%	\$4
2019	\$36	\$94	\$267	\$75	\$472	8.83%	10,16%	\$4
2020	\$35	\$91	\$255	\$71	\$452	8.83%	10.16%	\$4
2021	\$34	\$88	\$244	\$67	\$433	8.83%	10.16%	\$4
2022	\$33	\$86	\$233.	\$63	\$415	8.83%	10.16%	\$4
2023	\$32	\$84	\$223	\$60	\$399	8.83%	10,16%	\$4
2024	\$31	\$82	\$213	\$57	\$383	8.83%	10.16%	\$3

			ìnc	reme	ental Cu	iston	ner Cos	sts		
1	2	3	4	5	=3~4		6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Cu	stomer	0	& M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed		Costs		Cost	Total Consumed	Cost	Adm. & Main O&N
2005	\$2.61	\$31	10.16%	5	3.15	\$	29	10.16%	\$3	\$6
2006	\$2.67	\$32	10.16%	5	3.25	\$	30	10.16%	\$3	\$6
2007	\$2.74	\$33	10.16%	\$	3.35	\$	31	10.16%	\$3	\$6
2008	\$2.80	\$34	10,16%	S	3,45	\$	31	10.16%	\$3	\$7
2009	\$2.87	\$34	10,16%	5	3,45	\$	32	10.16%	\$3	\$7
2010	\$2.94	\$35	10.16%	\$	3.56	\$	33	10.16%	\$3	\$7
2011	\$3.01	\$36	10.16%	\$	3.66	\$	34	10.16%	\$3	\$7
2012	\$3.08	\$37	10.16%	\$	3,76	\$	35	10.16%	\$4	\$7
2013	\$3,16	\$38	10,16%	\$	3,86	\$	35	10.16%	\$4	\$7
2014	\$3.23	\$39	10.16%	\$	3.96	\$	36	10.16%	\$4	\$8
2015	\$3.31	\$40	10.16%	\$	4.06	\$	37	10.16%	\$4	\$8
2016	\$3.39	\$41	10.16%	S	4.16	\$	38	10.16%	\$4	\$8
2017	\$3.47	\$42	10.16%	\$	4.27	\$	39	10.16%	\$4	\$8
2018	\$3.55	\$43	10.16%	\$	4.37	\$	40	10.16%	\$4	\$8
2019	\$3.64	\$44	10,16%	3	4.47	\$	41	10,16%	\$4	\$9
2020	\$3.73	\$45	10.16%	\$	4.57	\$	42	10.16%	\$4	\$9
2021	\$3.81	\$46	10,16%	\$	4.67	\$	43	10.16%	\$4	\$9
2022	\$3,91	\$47	10.16%	S	4.77	\$	44	10.16%	\$4	\$9
2023	\$4.00	\$48	10,16%	\$	4.88	\$	45	10,16%	\$5	\$9
2024	\$4.10	\$49	10.16%	\$	4.98	\$	46	10,16%	\$5	\$10

Gas Costs										
1	2	3	2*3							
	Therms	Commodity Gas	Gas Supply							
Year	_	Supply Cost	Cost							
2005	45	1.1900	\$54							
2006	45	\$1.2186	\$55							
2007	45	\$1,2478	\$56							
2008	45	\$1.2778	\$57							
2009	45	\$1,3084	\$59							
2010	45	\$1.3398	\$60							
2011	45	\$1.3720	\$62							
2012	45	\$1.4049	\$63							
2013	45	\$1.4386	\$65							
2014	45	\$1.4731	\$66							
2015	45	\$1.5085	\$68							
2016	45	\$1.5447	\$70							
2017	45	\$1.5818	\$71							
2018	45	\$1.6197	\$73							
2019	45	\$1,6586	\$75							
2020	45	\$1.6984	\$76							
2021	45	\$1,7392	578							
2022	45	\$1,7809	\$80							
2023	45	\$1.8237	\$82							
2024	45	\$1,8674	\$84							

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Cost Effective Results

Appliance Type

Cooking

			Benefits		Costs								
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$147	\$100	\$36	\$283	\$449	(\$574)	\$350	\$36	\$59	\$19	\$13	\$352
2006	2	\$149	0	\$37	\$186	0	0	0	\$37	\$60	\$19	\$13	\$129
2007	3	\$151	0	\$38	\$189	0	0	0	\$38	\$62	\$19	\$13	\$132
2008	4	\$153	0	\$39	\$191	0	0	0	\$39	\$63	\$19	\$13	\$134
2009	5	\$155	0	\$40	\$194	0	0	0	\$40	\$65	\$19	\$13	\$136
2010	6	\$157	0	\$41	\$197	0	0	0	\$41	\$66	\$19	\$13	\$139
2011	7	\$159	0	\$42	\$200	0	0	0	\$42	\$68	\$19	\$13	\$141
2012	8	\$161	0	\$43	\$203	0	0	0	\$43	\$70	\$19	\$13	\$144
2013	9	\$163	0	\$44	\$206	0	0	0	\$44	\$71	\$19	\$13	\$147
2014	10	\$165	0	\$45	\$209	0	0	0	\$45	\$73	\$19	\$13	\$150
2015	11	\$166	0	\$46	\$212	0	0	0	\$46	\$75	\$19	\$13	\$152
2016	12	\$168	0	\$47	\$215	0	0	0	\$47	\$76	\$19	\$13	\$155
2017	13	\$170	0	\$48	\$218	0	0	0	\$48	\$78	\$19	\$13	\$158
2018	14	\$172	100	\$49	\$321	626	(800)	279	\$49	\$80	\$19	\$13	\$266
2019	15	\$174	0	\$50	\$224	0	0	0	\$50	\$82	\$19	\$13	\$164
2020	16	\$176	0	\$51	\$228	0	0	0	\$51	\$84	\$19	\$13	\$168
2021	17	\$178	0	\$53	\$231	0	0	0	\$53	\$86	\$19	\$13	\$171
2022	18	\$180	0	\$54	\$234	0	0	0	\$54	\$88	\$19	\$13	\$174
2023	19	\$182	0	\$55	\$237	0	0	0	\$55	\$90	\$19	\$13	\$177
2024	20	\$184	0	\$56	\$240	0	0	0	\$56	\$92	\$19	\$13	\$181

Present Value of Benefits \$2,126

Present Value sf Costs \$1,669

Benefit/Cost 1.27
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential New Construction Program Participants Test - Data

Appliance Type
Cooking

 O&M expense
 2%
 PGA Gas Ra
 2%
 Customer CF
 0%

 Electric rates (fu
 2%
 PGA Base R
 0%

	Electric	KWH Cost - Ta	able 1	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
_A	В	С	D	B*C*(1+D)
2005	\$0.1020	1,310	10.00%	\$147
2006	\$0.1034	1,310	10.00%	\$149
2007	\$0.1047	1,310	10.00%	\$151
2008	\$0,1061	1,310	10.00%	\$153
2009	\$0.1074	1,310	10.00%	\$155
2010	\$0,1088	1,310	10,00%	\$157
2011	\$0.1101	1,310	10.00%	\$159
2012	\$0.1115	1,310	10.00%	\$161
2013	\$0.1128	1,310	10.00%	\$163
2014	\$0.1142	1,310	10.00%	\$165
2015	\$0.1155	1,310	10.00%	\$166
2016	\$0.1169	1,310	10.00%	\$168
2017	\$0.1182	1,310	10.00%	\$170
2018	\$0.1196	1,310	10.00%	\$172
2019	\$0.1209	1,310	10.00%	\$174
2020	\$0.1223	1,310	10.00%	\$176
2021	\$0.1236	1,310	10.00%	\$178
2022	\$0.1250	1,310	10.00%	\$180
2023	\$0,1263	1,310	10.00%	\$182
2024	\$0,1277	1,310	10.00%	\$184

	Gas Supply Cost - Table 2								
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost					
A	В	С	D	B*C*(1+D)					
2005	\$1.1900	45	10.00%	\$59					
2006	\$1.2186	45	10.00%	\$60					
2007	\$1.2478	45	10.00%	\$62					
2008	\$1.2778	45	10.00%	\$63					
2009	\$1.3084	45	10.00%	\$65					
2010	\$1.3398	45	10.00%	\$66					
2011	\$1.3720	45	10.00%	\$68					
2012	\$1.4049	45	10.00%	\$70					
2013	\$1.4386	45	10.00%	\$71					
2014	\$1.4731	45	10.00%	\$73					
2015	\$1.5085	45	10.00%	\$75					
2016	\$1.5447	45	10.00%	\$76					
2017	\$1.5818	45	10.00%	\$78					
2018	\$1,6197	45	10.00%	\$80					
2019	\$1.6586	45	10.00%	\$82					
2020	\$1.6984	45	10.00%	\$84					
2021	\$1.7392	45	10.00%	\$86					
2022	\$1.7809	45	10.00%	\$88					
2023	\$1.8237	45	10.00%	\$90					
2024	\$1.8674	45	10.00%	\$92					

Gas Energy Charge - Table 3								
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost				
Α	B	c	<u>D</u>	B*C*(1+D)				
2005	\$0.3767	45	10.00%	\$19				
2006	\$0.3767	45	10.00%	\$19				
2007	\$0.3767	45	10.00%	\$19				
2008	\$0.3767	45	10.00%	\$19				
2009	\$0.3767	45	10,00%	\$19				
2010	\$0.3767	45	10.00%	\$19				
2011	\$0.3767	45	10.00%	\$19				
2012	\$0.3767	4 5	10.00%	\$19				
2013	\$0.3767	45	10.00%	\$19				
2014	\$0.3767	45	10.00%	\$19				
2015	\$0,3767	45	10.00%	\$19				
2016	\$0.3767	45	10.00%	\$19				
2017	\$0.3767	45	10.00%	\$19				
2018	\$0.3767	45	10.00%	\$19				
2019	\$0.3767	45	10,00%	\$19				
2020	\$0.3767	45	10.00%	\$19				
2021	\$0.3767	45	10.00%	\$19				
2022	\$0.3767	45	10.00%	\$19				
2023	\$0.3767	45	10.00%	\$19				
2024	\$0.3767	45	10.00%	\$19				

Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
A	В	С	D	E	D/E	G	C*(D/E)*(1+Z
2005	\$10	\$120.00	45	443	10.16%	10.00%	\$13
2006	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2007	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2008	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2009	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2010	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2011	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2012	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2013	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2014	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2015	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2016	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2017	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2018	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2019	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2020	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2021	\$10,00	\$120.00	45	443	10.16%	10.00%	\$13
2022	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2023	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2024	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Replacement Program Summary of RIM Test and Participants Test Results

	Proposed <u>Allowance</u>	Participants Test	RIM Test
Gas Storage Tank Water Heating	\$525	1.38	1.02
Gas Tankless Water Heating	\$525	1.27	1.00
Gas Heating	\$625	1.08	1.00
Gas Clothes Drying	\$100	1.25	1.08
Gas Cooking	\$100	1.22	1.07

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Replacement Program RIM Test and Participants Test Results

For

Storage Tank Water Heating

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Results

Appliance Type

Storage Tank Water Heating

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		9.5.
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge	Gas	Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$64	\$202	\$46	\$312	\$202	\$32	\$23	\$525	\$782
2003	\$64	\$207	\$46	\$317	\$207	\$31	\$24	\$0	\$262
2004	\$64	\$212	\$46	\$322	\$212	\$29	\$24	\$0	\$266
2005	\$64	\$217	\$46	\$327	\$217	\$28	\$25	\$0	\$271
2006	\$64	\$222	\$46	\$333	\$222	\$27	\$25	\$0	\$275
2007	\$64	\$228	\$46	\$338	\$228	\$26	\$26	\$0	\$280
2008	\$64	\$233	\$46	\$343	\$233	\$25	\$27	\$0	\$285
2009	\$64	\$239	\$46	\$349	\$239	\$24	\$27	\$0	\$290
2010	\$64	\$245	\$46	\$355	\$245	\$23	\$28	\$0	\$296
2011	\$64	\$250	\$46	\$361	\$250	\$22	\$29	\$0	\$301
2012	\$64	\$256	\$46	\$367	\$256	\$21	\$30	\$0	\$307
2013	\$64	\$263	\$46	\$373	\$263	\$20	\$30	\$0	\$313
2014	\$64	\$269	\$46	\$379	\$269	\$19	\$31	\$0	\$319
2015	\$64	\$275	\$46	\$385	\$275	\$19	\$32	\$0	\$326
2016	\$64	\$282	\$46	\$392	\$282	\$18	\$33	\$0	\$332
2017	\$64	\$289	\$46	\$399	\$289	\$17	\$33	\$0	\$339
2018	\$64	\$296	\$46	\$406	\$296	\$17	\$34	\$0	\$346
2019	\$64	\$303	\$46	\$413	\$303	\$16	\$35	\$0	\$353
2020	\$64	\$310	\$46	\$420	\$310	\$15	\$36	\$0	\$361
2021	\$64	\$317	\$46	\$428	\$317	\$15	\$36	\$0	\$369

Present Value of Benefits

\$3,448

Present Value of Costs

\$3,366

Benefit/Cost	
Ratio	1.02

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Calculated data

Appliance Type

		4	Ratio of Therms	Consumed	38,37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38,37%	38.37%	38.37%	38 3782	38 17%	38.37%	38.37%	38,37%	38.37%	38.37%
- Gas - Electric	rge			Annual Cust Cha	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120,00	\$120.00	\$120.00	\$120.00	\$120,00	\$120.00	\$120.00	\$120,00	\$120.00	\$120.00	\$120,00	\$120.00
Customer Charge - Gas Castomer Charge - Electric inflation factor	Revenue - Customer Charge	2		Chargeoffic	\$10.00	\$10,00	\$10.00	\$10.00 \$10.00	510.00	\$10.00	\$10.00	516.00	\$10.00	\$10.00	510.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10,00	\$10.00
Table 2	Revenue -	-		Year	2005	2006	2007	2008	2010	2011	2012	2013	2014	2012	2012	2018	2019	2020	2021	2022	2023	2024
2.80% 2.80% 4.10% 5.40%																						
7 7 7 T	_	Τ		ate					_						_							7
		7		ř	0 \$202					\$233					\$ \$269						277	
Main	st of Gas			PGA Rate	\$1.1900	\$1.2478	\$1.2778	\$1.3084	\$1,3398	\$1.3720	\$1,4049	\$1.4380	\$1,5085	\$1,5447	\$1,5818	\$1,6197	\$1,6586	\$1.6984	\$1,7392	\$1.7809	71 8674	
Supply Main Development Service Line Meter	Revenue - Cost of Gas			Therms	170	17.	170	170	170	170	2,5	2 6	170	170	170	170	170	0/1	2 6	27.	2 5	
Depreciation Rate - Supply Main Depreciation Rate - Development Most Depreciation Rate - Service Line Depreciation Rate - Meer Table 1s	1 Re			Year	2002	2007	2008	2009	2010	2011	2012	2014	2015	2016	2017	2018	5002	2020	2022	2022	2024	
2.4%																						
ating ntor alstor	2.3		1	\$64 \$64	\$64	264	295	3 3	104	. 3	264	\$64	\$64	200	5 3	264	264	\$64	\$64	264	\$64	
Storage Tank Water Heating PCA Rate Excustor Base Rate Escustor Electric Rate excustor	Revenue - Energy Charge		Boen Dade	\$0.3767	\$0.3767	\$0.3767	\$0.3767	\$0.3767	\$0,3767	\$0.3767	\$0,3767	\$0,3767	\$0.3767	\$0.3767	\$0.3767	\$0,3767	\$0.3767	\$0.3767	\$0.3767	\$0,3767	\$0.3767	
age Tan	evenue -		Therme	170	170	2.	2 5	2.2	170	170	170	170	2 5	2 5	170	170	170	170	170	170	170	
Stor.			Year	2005	2006	2007	2000	2010	201	2012	2013	2014	2015	2017	2018	2019	2020	2021	2022	2023	2024	

0% 0% 2.4%

1	2	۳	7	5=3-4		9	7	2-9=8	5+8
	Adm.	Annual	Ratio Therms To	Custome	,	N S C	Patio Thorms Ta	1	
ear	Cost	Adm Cost	Total Consumed	Corte			Trans	THE TANK	New Customer
100			Dalling Consoning	Custs	ļ	Cost	lotal Consumed	Š	Adm. & Main O&M
9	37.0	Ē	38.37%	5 11.90	\$	59	38.37%	\$11	223
3	25.67	\$35	38.37%	\$ 12.	\$ 82	30	38.37%	512	763
4	\$2.74	\$33	38.37%	\$ 12.6	299	31	38.37%	\$12	
2008	\$2.80	834	38.37%	\$ 13.05	35	£	38.37%	\$12	\$25
60	\$2.87	\$34	38.37%	\$ 13.05	8	32	38.37%	\$12	\$25
2	22.94	\$38	38.37%	\$ 13,4	\$	33	38.37%	\$13	5
=	\$3.01	\$36	38.37%	\$ 13,81	*	34	38.37%	213	2 5
12	\$3,08	237	38.37%	\$ 14.20	9	35	38.37%	513	15
2	\$3.16	\$38	38.37%	5 14.5	9	35	38.37%	514	\$2B
7	53.23	\$39	38.37%	\$ 14.5	's	36	38.37%	514	2,5
5	53.31	240	38.37%	\$ 15.3	\$ \$	37	38 37%	214	420
16	\$3,39	241	38.37%	\$ 15.7	\$ 5	88	38.37%	515	9 5
17	\$3.47	\$42	38.37%	\$ 16,1	9	39	38 37%	12	2 5
18	\$3.55	\$43	38,37%	\$ 16.5	9	4	38 17%	4	1 5
19	\$3.64	244	38.37%	\$ 16.8	9	. 14	38 17%	2 5	7 5
20	\$3,73	\$45	38.37%	\$ 17.2		. 4	38 37%	45	2 5
21	\$3.81	\$46	38.37%	S 17.6	9	4	38 37%	219	3 5
22	\$3.91	\$47	38.37%	5 18.0		4	7.8 37%	2 5	200
23	24.00	\$48	38.37%	\$ 18.4	ب د	45	38 17%	. 5	2 2
24	54 10	640	28 37%	2 188		2 5	20,12,00		974

			IIIC	merchielled custoffer costs	Storner Cos	2		
	2	3	4	5=3-4	9	1	8=6*7	8+5
	Adm.	Annual	Ratio Therms To	Customer	Mago	Datio Thorms Ta	1	
34	Cost	Adm Cost	Total Consumed	, and	1	O COLUMN	The same	INEW CUSTOMER
١	100		Dallinguo into	Costs	500	lotal Consumed	500	Adm. & Main O&M
2	97.0	5	38.37%	2 11.90	\$ 29	38,37%	\$11	563
œ	\$2.67	\$35	38.37%	\$ 12.28	30	3.8 3.7%	543	
2	\$2.74	\$33	38.37%	\$ 12.66		20E C 0 E	7 0	77.
2	\$2 BD		10000	8 1	,	36.37%	312	\$24
2 !	35.00	5	38.37%	5 13.05	3	38.37%	\$12	\$25
2	22.87	\$34	38.37%	\$ 13.05	32	38.37%	512	525
	\$2.94	\$38	38.37%	\$ 13.43	5 33	38 27%	513	
_	\$3.01	\$36	38.37%	5 13.81		18 37%		7 !
	80 63	753	70 J. O. C.			30.37 %	2	\$27
	9	ž	30.37.76	07.41	32	38.37%	\$13	223
2	\$3.16	838	38.37%	S 14.58	\$ 35	38.37%	514	\$2B
4	53.23	839	38,37%	\$ 14.97	36	38.37%	818	
'n	\$3,31	240	38.37%	\$ 15.35	22	78 370	5	-
u	\$3.30	5	78 2787	66.33		20.00	5	920
, ,	000	ţ .	20.5776	5/G	38	38.37%	\$15	\$30
_	\$3.47	\$42	38.37%	\$ 16.12	39	38,37%	\$15	23
80	\$3.55	\$43	38,37%	\$ 16.50	\$ 40	38.37%	515	ŝ
2019	23.6	244	38.37%	\$ 16.88	\$	38.37%	216	5
0	\$3,73	\$45	38.37%	\$ 17.27	\$ 42	38.37%	5.16	265
	\$3.81	\$46	38 37%	\$ 17.65		2010 010		3 3
,	\$2.05	273	70 27 PK		? :	20.37 /8	9	454
		Ì.	20.27.76	90.04	4	38.37%	\$17	\$35
	24.00	\$48	38.37%	\$ 18.42	\$ 45	38.37%	\$17	536
4	24 10	640	10 17th		:			

Gass Suspiry

Coost

Coost

State

St

Supply Cost 1,1907 1,1907 1,1907 1,1308 1,13

Year 2005 2006 2008 2008 2008 2011 2011 2011 2012 2015 2015 2015 2016 2017 2016 2017 2018 2017 2018 2018 2018 2018 2018 2017 2018 2016

Gas Costs

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Cost Effective Results

Appliance Type

Storage Tank Water Heating

			Benefits						Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment Cost	Gas Installation Costs	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$536	\$525	\$36	\$1,097	\$259	(\$314)	\$550	\$36	\$223	\$70	\$51	\$875
2006	2	\$543	0	\$37	\$580	0	0	0	\$37	\$228	\$70	\$51	\$386
2007	3	\$550	0	\$38	\$588	0	0	0	\$38	\$233	\$70	\$51	\$392
2008	4	\$557	0	\$39	\$596	0	0	0	\$39	\$239	\$70	\$51	\$399
2009	5	\$564	0	\$40	\$604	0	0	0	\$40	\$245	\$70	\$51	\$405
2010	6	\$571	0	\$41	\$612	0	0	0	\$41	\$251	\$70	\$51	\$412
2011	7	\$578	0	\$42	\$620	0	0	0	\$42	\$257	\$70	\$51	\$419
2012	8	\$585	0	\$43	\$628	0	0	0	\$43	\$263	\$70	\$51	\$426
2013	9	\$592	0	\$44	\$636	0	0	0	\$44	\$269	\$70	\$51	\$434
2014	10	\$599	0	\$45	\$644	0	0	0	\$45	\$275	\$70	\$ 51	\$441
2015	11	\$607	0	\$46	\$652	0	0	0	\$46	\$282	\$70	\$51	\$449
2016	12	\$614	0	\$47	\$660	0	0	0	\$47	\$289	\$70	\$51	\$457
2017	13	\$621	0	\$48	\$669	0	0	0	\$48	\$296	\$70	\$51	\$465
2018	14	\$628	100	\$49	\$777	361	(438)	558	\$49	\$303	\$70	\$51	\$954
2019	15	\$635	0	\$50	\$685	0	0	0	\$50	\$310	\$70	\$51	\$481
2020	16	\$642	0	\$51	\$693	0	0	0	\$51	\$318	\$70	\$51	\$490
2021	17	\$649	0	\$53	\$702	0	0	0	\$ 53	\$325	\$70	\$ 51	\$499
2022	18	\$656	0	\$54	\$710	0	0	0	\$54	\$333	\$70	\$ 51	\$508
2023	19	\$663	0	\$55	\$718	0	0	0	\$55	\$341	\$70	\$51	\$517
2024	20	\$670	0	\$56	\$727	0	0	0	\$56	\$349	\$70	\$51	\$527

Present Value of Benefits \$6,690

Present Value of Costs \$4,836

Benefit/Cost 1.38
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Data

Appliance Type
Storage Tank Water Heating

O&M expense 2.4% PGA Gas Rates 2.4% Customer Charge 0% Electric rates (fu 2.4% PGA Base Rate 0.0%

	Liectric	KWH Cost - T	and I	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
A	В	C	D	B*C*(1+D)
2005	\$0.1020	4,773	10%	\$536
2006	\$0.1034	4,773	10%	\$543
2007	\$0.1047	4,773	10%	\$550
2008	\$0.1061	4,773	10%	\$557
2009	\$0.1074	4,773	10%	\$564
2010	\$0.1088	4,773	10%	\$571
2011	\$0.1101	4,773	10%	\$578
2012	\$0.1115	4,773	10%	\$585
2013	\$0.1128	4,773	10%	\$592
2014	\$0.1142	4,773	10%	\$599
2015	\$0.1155	4,773	10%	\$607
2016	\$0.1169	4,773	10%	\$614
2017	\$0.1182	4,773	10%	\$621
2018	\$0.1196	4,773	10%	\$628
2019	\$0.1209	4,773	10%	\$635
2020	\$0.1223	4,773	10%	\$642
2021	\$0.1236	4,773	10%	\$649
2022	\$0.1250	4,773	10%	\$656
2023	\$0.1263	4,773	10%	\$663
2024	\$0.1277	4,773	10%	\$670

	Gas Supply	Cost - Tabl	e 2	
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
A	В	С	D	B*C*(1+D)
2005	\$1.1900	170	10%	\$223
2006	\$1,2186	170	10%	\$228
2007	\$1.2478	170	10%	\$233
2008	\$1,2778	170	10%	\$239
2009	\$1,3084	170	10%	\$245
2010	\$1.3398	170	10%	\$251
2011	\$1.3720	170	10%	\$257
2012	\$1,4049	170	10%	\$263
2013	\$1,4386	170	10%	\$269
2014	\$1.4731	170	10%	\$275
2015	\$1.5085	170	10%	\$282
2016	\$1.5447	170	10%	\$289
2017	\$1.5818	170	10%	\$296
2018	\$1.6197	170	10%	\$303
2019	\$1,6586	170	10%	\$310
2020	\$1.6984	170	10%	\$318
2021	\$1.7392	170	10%	\$325
2022	\$1.7809	170	10%	\$333
2023	\$1.8237	170	10%	\$341
2024	\$1.8674	170	10%	\$349

	Gas Ene	rgy Charge	- Table 3	
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost
Α_	В	С	D	B*C*(1+D)
2005	\$0.3767	170	10%	\$70
2006	\$0.3767	170	10%	\$70
2007	\$0.3767	170	10%	\$70
2008	\$0.3767	170	10%	\$70
2009	\$0.3767	170	10%	\$70
2010	\$0.3767	170	10%	\$70
2011	\$0.3767	170	10%	\$70
2012	\$0.3767	170	10%	\$70
2013	\$0.3767	170	10%	\$70
2014	\$0.3767	170	10%	\$70
2015	\$0.3767	170	10%	\$70
2016	\$0.3767	170	10%	\$70
2017	\$0.3767	170	10%	\$70
2018	\$0.3767	170	10%	\$70
2019	\$0.3767	170	10%	\$70
2020	\$0.3767	170	10%	\$70
2021	\$0.3767	170	10%	\$70
2022	\$0.3767	170	10%	\$70
2023	\$0.3767	170	10%	\$70
2024	\$0.3767	170	10%	\$70

			Gas Custom	Total			
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	С	D	Ε	D/E	G	C*(D/E)*(1+2
2005	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2006	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2007	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2008	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2009	\$10,00	\$120.00	170	443	38.37%	10%	\$51
2010	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2011	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2012	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2013	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2014	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2015	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2016	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2017	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2018	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2019	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2020	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2021	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2022	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2023	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2024	\$10.00	\$120.00	170	443	38.37%	10%	\$51

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Replacement Program RIM Test and Participants Test Results

For

Tankless Water Heating

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Results

Appliance Type

Tankless Water Heating

		•••							
	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$57	\$179	\$46	\$281	\$179	\$32	\$23	\$525	\$759
2003	\$57	\$183	\$46	\$285	\$183	\$31	\$24	\$0	\$237
2004	\$57	\$187	\$46	\$290	\$187	\$29	\$24	\$0	\$241
2005	\$57	\$192	\$46	\$294	\$192	\$28	\$25	\$0	\$245
2006	\$57	\$196	\$46	\$299	\$196	\$27	\$25	\$0	\$249
2007	\$57	\$201	\$46	\$304	\$201	\$26	\$26	\$0	\$253
2008	\$57	\$206	\$46	\$308	\$206	\$25	\$27	\$0	\$257
2009	\$57	\$211	\$46	\$313	\$211	\$24	\$27	\$0	\$262
2010	\$57	\$216	\$46	\$318	\$216	\$23	\$28	\$0	\$267
2011	\$57	\$221	\$46	\$324	\$221	\$22	\$29	\$0	\$272
2012	\$57	\$226	\$46	\$329	\$226	\$21	\$30	\$0	\$277
2013	\$57	\$232	\$46	\$334	\$232	\$20	\$30	\$0	\$282
2014	\$57	\$237	\$46	\$340	\$237	\$19	\$31	\$0	\$288
2015	\$57	\$243	\$46	\$346	\$243	\$19	\$32	\$0	\$293
2016	\$57	\$249	\$46	\$351	\$249	\$18	\$33	\$0	\$299
2017	\$57	\$255	\$46	\$357	\$255	\$17	\$33	\$0	\$305
2018	\$57	\$261	\$46	\$363	\$261	\$17	\$34	\$0	\$312
2019	\$57	\$267	\$46	\$370	\$267	\$16	\$35	\$0	\$318
2020	\$57	\$274	\$46	\$376	\$274	\$15	\$36	\$0	\$324
2021	\$57	\$280	\$46	\$383	\$280	\$15	\$36	\$0	\$331

Present Value Present Value of Benefits \$3,095 of Costs \$3,087

Ratio	1.00

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Calculated data

Appliance Type
Tankless Water Heating

PGA Rate Escalator 2% Base Rate Escalator 0% Electric Rate escalator 2%

2% 0% 2% Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter 2.80% 2.80% 4.40% 5.40% Customer Charge - Gas Customer Charge - Electric Inflation factor 0% 0% 2%

_ R	evenue -	Energy Cha	rge
1	. 2	3	2-3
Year	Therms	Base Rate	Total Rate
2005	150	\$0.3767	\$57
2006	150	\$0.3767	\$57
2007	150	\$0.3767	\$57
2008	150	\$0.3767	\$57
2009	150	\$8.3767	\$57
2010	150	\$0.3767	\$57
2011.	150	\$0.3767	\$57
2012	150	\$0.3767	\$57
2013	150	\$0.3767	\$57
2014	150	\$0,3767	\$57
2015	150	\$0.3767	\$57
2016	150	\$0.3767	\$57
2017	150	\$0.3767	\$57
2018	150	\$0.3767	\$57
2019	150	\$0,3767	\$57
2020	150	\$0.3767	\$57
2021	150	\$0.3767	\$57
2022	150	\$0.3767	\$57
2023	150	\$0.3767	\$57
2024	150	\$0,3767	\$57

	Revenue - Co:			
1	2	4	2*3	
Year	Therms	PGA Rate	Total Rate	
2005	150	\$1,1900	\$179	
2006	150	\$1.2186	\$183	
2007	150	\$1.2478	\$187	
2008	150	\$1.2778	\$192	
2009	150	\$1.3084	\$196	
2010	150	\$1,3398	\$201	
2011	150	\$1.3720	\$206	
2012	150	\$1,4049	\$211	
2013	150	\$1.4386	\$216	
2014	150	\$1.4731	\$221	
2015	150	\$1.5085	\$226	
2016	150	\$1.5447	\$232	
2017	150	\$1,5818	\$237	
2018	150	\$1.6197	\$243	
2019	150	\$1.6586	\$249	
2020	150	\$1.6984	\$255	
2021	150	\$1.7392	\$261	
2022	150	\$1.7809	\$267	
2023	150	\$1.8237	\$274	
2024	150	\$1.8674	\$280	

1	2	3	4	4*3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust, Chg
2005	\$10.00	\$120.00	38.37%	\$46
2006	\$10.00	\$120.00	38.37%	\$46
2007	\$10.00	\$120.00	38.37%	\$46
2008	\$10.00	\$120.00	38.37%	\$46
2009	\$10.00	\$120.00	38.37%	\$46
2010	\$10.00	\$120.00	38.37%	\$46
2011	\$10.00	\$120.00	38.37%	\$46
2012	\$10.00	\$120.00	38.37%	\$46
2013	\$10.00	\$120.00	38.37%	\$46
2014	\$10.00	\$120.00	38.37%	\$46
2015	\$10.00	\$120.00	38.37%	\$46
2016	\$10.00	\$120.00	38.37%	\$46
2017	\$10.00	\$120.00	38.37%	\$46
2018	\$10.00	\$120.00	38.37%	\$46
2019	\$10.00	\$120.00	38.37%	\$46
2020	\$10.00	\$120.00	38.37%	\$46
2021	\$10.00	\$120.00	38.37%	\$46
2022	\$10.00	\$120,00	38,37%	\$46
2023	\$10.00	\$120.00	38.37%	\$46
2024	\$10.00	\$120.00	38.37%	\$46

			In	vestment C	arrying Cos	ts		
1	2	3	4	5	6	. 7	8	6*7*8
	Supply	Developmen	Service		Customer	Avg Cost	Ratio of Therms	Carrying Cho
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svo
2005	\$0	\$280	\$500	\$163	\$943	8.83%	38.37%	\$32
2006	50	\$272	\$478	\$154	\$904	8.83%	38.37%	\$31
2007	\$0	\$264	\$457	\$146	\$867	8.83%	38.37%	\$29
2008	\$0	\$257	\$437	\$138	\$832	8.83%	38.37%	\$28
2009	SO	\$250	\$418	\$131	\$799	8.83%	38.37%	\$27
2010	\$0	\$243	\$400	\$124	\$767	8.83%	38,37%	\$26
2011	\$0	\$236	\$382	\$117	\$735	8.83%	38.37%	\$25
2012	\$0	\$229	\$365	\$111	\$705	8.83%	38.37%	\$24
2013	\$0	\$223	\$349	\$105	\$677	8.83%	38.37%	\$23
2014	\$0	\$217	\$334	\$99	\$650	8.83%	38.37%	\$22
2015	\$0	\$211	\$319	\$94	\$624	8.83%	38.37%	\$21
2016	\$0	\$205	\$305	\$89	\$599	8.83%	38.37%	\$20
2017	\$0	\$199	\$292	584	\$575	8.83%	38.37%	\$19
2018	\$0	\$193	\$279	\$79	\$551	8.83%	38.37%	\$19
2019	\$0	S188	\$267	\$75	\$530	8.83%	38.37%	\$18
2020	SO	\$183	\$255	\$71	\$509	8.83%	38.37%	\$17
2021	SO	\$178	\$244	\$67	\$489	8.83%	38.37%	\$17
2022	30	\$173	\$233	\$63	\$469	8.83%	38.37%	\$16
2023	\$0	\$168	\$223	\$60	\$451	8.83%	38.37%	\$15
2024	\$0	5163	\$213	\$57	\$433	8.83%	38.37%	\$15

			Increm	ient	al Custo	ome	r Cost	5		
1	3	3	4		5=3*4	_	6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	C	istomer	С	& M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed		Costs		Cost	Total Consumed	Cost	Adm. & Main O&M
2005	\$2,61	\$31	38.37%	\$	11.90	\$	29	38.37%	\$11	\$23
2006	\$2.67	\$32	38.37%	\$	12,28	\$	30	38.37%	\$12	\$24
2007	\$2.74	\$33	38.37%	\$	12.66	\$	31	38,37%	\$12	\$24
2008	\$2.80	\$34	38,37%	5	13.05	\$	31	38.37%	\$12	\$25
2009	\$2.87	\$34	38.37%	S	13.05	\$	32	38.37%	\$12	\$25
2010	\$2.94	\$35	38.37%	\$	13,43	\$	33	38.37%	\$13	\$26
2011	\$3.01	\$36	38,37%	\$	13.81	\$	34	38,37%	\$13	\$27
2012	\$3.08	\$37	38.37%	\$	14.20	\$	35	38.37%	\$13	\$27
2013	\$3.16	\$38	38,37%	\$	14.58	\$	35	38.37%	\$14	\$28
2014	\$3.23	\$39	38.37%	\$	14.97	\$	36	38.37%	\$14	\$29
2015	\$3,31	540	38.37%	\$	15,35	\$	37	38.37%	\$14	\$30
2016	\$3,39	541	38.37%	s	15.73	\$	38	38.37%	\$15	\$30
2017	\$3.47	\$42	38.37%	\$	16.12	\$	39	38.37%	\$15	\$31
2018	\$3.55	\$43	38.37%	S	16,50	5	40	38.37%	\$15	\$32
2019	\$3,64	\$44	38.37%	s	16,88	\$	41	38.37%	\$16	\$33
2020	\$3,73	\$45	38.37%	s	17.27	\$	42	38.37%	\$16	\$33
2021	\$3.81	\$46	38.37%	s	17,65	5	43	38.37%	\$16	\$34
2022	\$3,91	\$47	38.37%	\$	18.04	5	44	38,37%	\$17	\$35
2023	\$4.00	\$48	38,37%	\$	18.42	\$	45	38.37%	\$17	\$36
2024	\$4.10	349	38.37%	s	18.60	s	46	38.37%	\$18	\$36

Table 2

	Gas C	Costs	
1	2*3		
	Therms	Per Therm	Gas Suppl
Year		Supply Cost	Cost
2005	150	1.1900	\$179
2006	150	\$1.2186	\$183
2007	150	\$1.2478	\$187
2008	150	\$1.2778	\$192
2009	150	\$1,3084	\$196
2010	150	\$1.3398	\$201
2011	150	\$1,3720	\$206
2012	150	51.4049	\$211
2013	150	\$1.4386	\$216
2014	150	\$1.4731	\$221
2015	150	\$1.5085	\$226
2016	150	\$1.5447	\$232
2017	150	\$1.5818	\$237
2018	150	\$1.6197	\$243
2019	150	\$1,6586	\$249
2020	150	\$1.6984	\$255
2021	150	\$1.7392	\$261
2022	150	\$1,7809	\$267
2023	150	\$1.8237	\$274
2024	150	\$1.8674	\$280

Peoples Gas System - Energy Conservation Filing 2006 Residential Applance Replacement Program Participants Test - Cost Effective Results

Appliance Type

Tankless Water Heating

			Benefits						Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment Cost	Gas Installation Costs	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$536	\$525	\$36	\$1,097	\$ 95 0	(\$314)	\$500	\$36	\$196	\$ 62	\$45	\$1,475
2006	2	\$543	0	\$37	\$580	0	0	0	\$37	\$201	\$62	\$45	\$345
2007	3	\$550	0	\$38	\$588	0	0	0	\$38	\$206	\$62	\$45	\$350
2008	4	\$557	0	\$39	\$596	0	0	0	\$39	\$211	\$62	\$45	\$356
2009	5	\$564	0	\$40	\$604	0	0	0	\$40	\$216	\$62	\$45	\$362
2010	6	\$571	0	\$41	\$612	0	0	0	\$41	\$221	\$62	\$45	\$368
2011	7	\$578	0	\$42	\$620	0	0	0	\$42	\$226	\$62	\$45	\$375
2012	8	\$585	0	\$43	\$628	0	0	0	\$43	\$232	\$62	\$ 45	\$381
2013	9	\$592	0	\$44	\$636	0	0	0	\$44	\$237	\$62	\$45	\$388
2014	10	\$599	0	\$45	\$644	0	0	0	\$45	\$243	\$62	\$45	\$394
2015	11	\$607	0	\$46	\$652	0	0	0	\$46	\$249	\$62	\$45	\$401
2016	12	\$614	0	\$47	\$660	0	0	0	\$47	\$255	\$62	\$45	\$408
2017	13	\$621	0	\$48	\$669	0	0	0	\$48	\$261	\$62	\$45	\$416
2018	14	\$628	100	\$49	\$777	1,324	(438)	488	\$49	\$267	\$62	\$45	\$1,797
2019	15	\$635	0	\$50	\$685	0	0	0	\$50	\$274	\$62	\$45	\$431
2020	16	\$642	0	\$51	\$693	0	0	0	\$51	\$280	\$62	\$45	\$438
2021	17	\$649	0	\$53	\$702	0	0	0	\$53	\$287	\$62	\$45	\$446
2022	18	\$656	0	\$54	\$710	0	0	0	\$54	\$294	\$62	\$45	\$455
2023	19	\$663	0	\$55	\$718	0	0	0	\$55	\$301	\$62	\$45	\$463
2024	20	\$670	0	\$56	\$727	0	0	0	\$56	\$308	\$62	\$45	\$471

Present Value of Benefits \$6,690

Present Value of Costs \$5,287

Benefit/Cost	1.27
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Data

		L

- IzoO	Gas Supply		Electric KWH C		
		%0			
1		%d	A 988B ADY	%Z	Electric rates (fu
%0	Customer Ct	%Z	eЯ ≳so Aoq	%7	esneqxe M&O

Cust Charge	Zax & Fees	Appliance to IstoT	emnent -	leunnA emnedT	Срагде	Cust	Хеяг
C*(D/E)*(1+Z	Ð	3/0	- š	ď	5	8	Ą
S45	10.00%	%98.EE	443	190	\$120.00	or\$	5002
Str\$	%00'01	%98°EE	443	150	\$150.00	00.01\$	2005
\$42	%00.01	%98.EE	6443	120	\$150.00	\$10.00	2002
Str\$	%00.01	%98.88	5pp	120	\$150.00	\$10.00	2008
9 7 \$	%00 [.] 01	%98.EE	Epp	120	\$120.00	00.01\$	\$002
\$45	%00°01	%98.EE	644	091	\$150,00	00'01\$	5010
9 †\$	%00°01	33.86%	443	120	\$150.00	\$10.00	2011
\$48	10.00%	%98.EE	443	120	\$150.00	\$10.00	ZOIS
57\$	%00°01	%98.EE	6443	120	\$150.00	\$10.00	2013
\$42	10.00%	%98°C£	6443	150	\$120,00	\$10.00	5014
St/\$	%00°01	%98.EE	6443	120	\$150,00	210.00	5015
242	%00°01	%98.EE	5443	120	\$150.00	\$10.00	9102
\$45	%00.01	%98.EE	5443	051	\$120.00	00.01\$	2102
S7 \$	%00°01	33.86%	6443	150	\$150.00	\$10.00	8102
57\$	%00.01	%98°EE	443	120	\$150.00	\$10.00	5019
\$42	%00°01	%98.EE	6443	120	\$150.00	00.01\$	2020
S7\$	%00°01	%98.EE	5443	150	\$150.00	\$10.00	2021
\$4\$	%00.01	%98.EE	6443	150	\$150.00	\$10.00	2022
S7\$	10.00%	%98.EE	Epp	120	\$120,00	\$10.00	2023
S\$\$	%00.01	%98.EE	8443	120	\$120.00	00.01\$	2024

Gas Customer Charge - Table 3

Year Rate Per Annual Tax & Gas Cost							
B _* C _* (1+D	Lees	С Дувшиг пгец	Them	Year			
79\$	10.00%	160	797£.0\$	2002			
29\$	%00 .01	150	\$0.3767	2006			
Z9\$	%00.01	120	Z9ZE:0\$	2002			
Z9\$	%00.01	150	\$0.3767	2008			
Z9\$	%00°0£	120	\$0.3767	5003			
79\$	%00 [.] 01	120	\$0.3767	2010			
79 \$	%00.0t	120	\$0.3767	2011			
79 \$	%00.01	150	Z9ZE'0\$	2012			
79\$	%00.01	051	797E.0\$	5013			
Z9 \$	%00.01	120	Z9ZE:0\$	2014			
Z9 \$	%00.01	120	Z9ZE'0\$	2015			
Z9 \$	%00.01	120	797£.0\$	2012			
79\$	%00.01	150	7975.0\$	2102			
Z9\$	%00'01	150	7976.08	2018			
79\$ 79\$	%00.01 %00.01	120	797E.0\$	2020			
29\$	%00.01	981	7975.0\$	3051			
29\$	%00.01	150	1975.0\$	2022			
Z9\$	%00.01	150	797E.0\$	2023			
79\$	%00.01	051	\$975.0\$	202¢			

soე seg	2 SIGE I	- feost - Annual Therms used	Therm Cost	Year
B*C*(1+C	đ	Э	8	V
961\$	%00 [°] 01	150	0061.18	2002
102\$	%00.01	150	\$1,2186	9002
907\$	%00 [°] 01	150	8725.18	Z00Z
\$511	10.00%	120	8172.18	2008
\$518	%00.01	150	\$1,3084	500S
122\$	*00.01	120	8666.13	2010
\$556	%00.01	150	\$1.3720	1102
\$535	%00.01	120	\$1.4049	2012
\$237	%00.01	150	3854.1\$	2013
\$543	%00.01	150	1674.18	2014
6ÞZ\$	10.00%	091	\$802.1\$	5012
\$528	%00°0\$	120	ZÞÞ9"1\$	2016
\$261	%00.01	150	\$185.1\$	2017
2567	%00.01	ışı	7619.18	8102
\$274	%00.01	120	9899.1\$	\$019
\$580	%00.01	150	1869.1\$	5050
182\$	10.00%	120	2667.18	1202
\$294	%00.01	120	6087.12	2022
\$301	400.01	150	\$1.8237	2023
\$308	%00.01	120	b788.18	2024

*** virt-old		KWH Cost - Ta Annual KWH used	Unit KWH	Year
			Cost	
\$230 B.C.(1+C	10.00%	4,773	80.1020	400S
£12\$	10.00%	£77,4	\$01,0\$	2006
\$220	%00.01	£11,4	7401.0\$	7002
£99\$	%00.0t	ይፕፕ,4	1901.0\$	8008
\$2 94	%00.01	£77,A	\$2010\$	600S
149\$	%00.01	£77,4	\$801.0\$	2010
872\$	10.00%	£77,b	1011.0\$	1102
\$282	%00°01	£77,4	\$111.0\$	Stos
Z69\$	%00 [.] 01	£77,4	8211.0\$	5102
665\$	10.00%	£77,4	Z11170\$	5102
£09 \$	%00:01	ETT, A	9911.0\$	\$107
\$£9\$	%00°01	£77,4	6911.0\$	9102
129\$	%00:01	£773	\$811.0\$	2102
879\$	%00.01	£77,4	9611.0\$	8102
989\$	40.00%	£77,4	\$0°,1°00	6102
Z#9\$	10.00%	£77,4	\$0.1223	5050
679\$	%00.01	£77,4	\$0.1236	12021
\$929	40.00%	£77.4	\$0:1520	2022
\$99\$	10.00%	£77,4	20.1263	2023

Appliance Type
Tankless Water Heating

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Replacement Program RIM Test and Participants Test Results

For

Heating Systems

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Results

Αp	plia	nce	<u>Type</u>

Heating System

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy Charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$67	\$212	\$48	\$327	\$212	\$33	\$24	\$625	\$894
2003	\$67	\$217	\$48	\$332	\$217	\$32	\$25	\$0	\$274
2004	\$67	\$222	\$48	\$337	\$222	\$31	\$26	\$0	\$278
2005	\$67	\$227	\$48	\$343	\$227	\$30	\$26	\$0	\$283
2006	\$67	\$233	\$48	\$348	\$233	\$28	\$27	\$0	\$288
2007	\$67	\$238	\$48	\$354	\$238	\$27	\$27	\$0	\$293
2008	\$67	\$244	\$48	\$359	\$244	\$26	\$28	\$0	\$298
2009	\$67	\$250	\$48	\$365	\$250	\$25	\$29	\$0	\$304
2010	\$67	\$256	\$48	\$371	\$256	\$24	\$29	\$0	\$310
2011	\$67	\$262	\$48	\$377	\$262	\$23	\$30	\$0	\$316
2012	\$67	\$269	\$48	\$384	\$269	\$22	\$31	\$0	\$322
2013	\$67	\$275	\$48	\$390	\$275	\$21	\$32	\$0	\$328
2014	\$67	\$282	\$48	\$397	\$282	\$20	\$33	\$0	\$334
2015	\$67	\$288	\$48	\$404	\$288	\$20	\$33	\$0	\$341
2016	\$67	\$295	\$48	\$410	\$295	\$19	\$34	\$0	\$348
2017	\$67	\$302	\$48	\$418	\$302	\$18	\$35	\$0	\$355
2018	\$67	\$310	\$48	\$425	\$310	\$17	\$36	\$0	\$363
2019	\$67	\$317	\$48	\$432	\$317	\$17	\$36	\$0	\$370
2020	\$67	\$325	\$48	\$440	\$325	\$16	\$37	\$0	\$378
2021	\$67	\$332	\$48	\$448	\$332	\$15	\$38	\$0	\$386

 Present Value
 Present Value

 of Benefits
 \$3,610
 of Costs
 \$3,594

Ratio	1.00
· · · · · · · · · · · · · · · · · · ·	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Calculated data

Appliance Type Heating System

> PGA Rate Escalator 2.4% Base Rate Escalator Electric Rate escalator

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter 2.80% 2.80% 4.40% 5.40% Customer Charge - Gas Customer Charge - Electric Inflation factor

R	Revenue - Cost of Gas									
1	2	4	2*3							
Year	Therms	PGA Rate	Total Rate							
2005	178	\$1,1900	\$212							
2006	178	\$1.2186	\$217							
2007	178	\$1.2478	\$222							
2008	178	\$1.2778	\$227							
2009	178	\$1.3084	\$233							
2010	178	\$1,3398	\$238							
2011	178	\$1,3720	\$244							
2012	176	\$1.4049	\$250							
2013	178	\$1,4386	\$256							
2014	178	\$1,4731	\$262							
2015	178	\$1,5085	\$269							
2016	178	\$1.5447	\$275							
2017	- 178	\$1,5818	\$282							
2018	178	\$1,6197	\$288							
2019	178	\$1,6586	\$295							
2020	178	\$1,6984	\$302							
2021	178	\$1,7392	\$310							
2022	17B	\$1,7809	\$317							
2023	178	\$1,8237	\$325							
2024	178	\$1.8674	\$332							

_1	2	3	4	4-3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust. Cho
2005	\$10.00	\$120.00	40.18%	\$48
2006	\$10.00	\$120.00	40.18%	\$48
2007	\$10.00	\$120.00	40.18%	\$48
2008	\$10.00	\$120.00	40.18%	\$48
2009	\$10.00	\$120.00	40.18%	\$48
2010	\$10.00	\$120.00	40.18%	\$48
2011	\$10.00	\$120.00	40.18%	\$48
2012	\$10.00	\$120.00	40.18%	\$48
2013	\$10.00	\$120.00	40.18%	\$48
2014	\$10.00	\$120.00	40.18%	\$48
2015	\$10.00	\$120.00	40.18%	\$48
2016	\$10.00	\$120.00	40.18%	\$48
2017	\$10.00	\$120.00	40.18%	3 48
2018	\$10.00	\$120.00	40.18%	\$48
2019	\$10.00	\$120.00	40.18%	548
2020	\$10.00	\$120.00	40.18%	\$48
2021	\$10.00	\$120.00	40.18%	\$48
2022	\$10.00	\$120.00	40 18%	\$48
2023	\$10.00	\$120.00	40.18%	\$48
2024	\$10.00	\$120.00	40.18%	\$48

	Investment Carrying Costs											
_1	2	3	4	5	6	7	. 8	6-7-8				
	Supply	Development	Service		Customer	Avg Cost	Ratio of Therms	Carrying Cho				
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svc				
2005	\$0	\$280	\$500	\$163	\$943	8.83%	40.18%	\$33				
2006	SO	\$272	\$478	\$154	\$904	8.83%	48.18%	\$32				
2007	\$0	5264	\$457	\$146	\$867	8.83%	40.18%	\$31				
2008	\$0	\$257	\$437	\$138	\$832	8.83%	40.18%	\$30				
2009	\$0	\$250	\$418	\$131	\$799	8.83%	40.18%	\$28				
2010	\$0	\$243	\$400	\$124	\$767	8.83%	40,18%	\$27				
2011	\$0	\$236	\$382	\$117	\$735	8.83%	40.18%	\$26				
2012	\$0	\$229	\$365	\$111	\$705	8.83%	40.18%	\$25				
2013	50	\$223	\$349	\$105	\$677	8.83%	40.18%	\$24				
2014	\$0	\$217	\$334	\$99	\$650	8,83%	40.18%	\$23				
2015	\$0	\$211	\$319	\$94	\$624	8.83%	40,18%	\$22				
2016	50	\$205	\$305	\$89	\$599	8.83%	40.18%	\$21				
2017	50	\$199	\$292	\$84	\$575	8.83%	40.18%	\$20				
2018	\$0	\$193	\$279	\$79	\$551	8.83%	40.18%	\$20				
2019	\$0	\$188	\$267	\$75	\$530	8.83%	40.18%	\$19				
2020	\$0	\$183	5255	\$71	\$509	8.83%	40,18%	\$18				
2021	\$0	\$178	\$244	\$67	\$489	8.83%	40.18%	517				
2022	\$0	\$173	\$233	\$63	\$469	8.83%	40.18%	\$17				
2023	\$0	\$168	\$223	260	\$451	8.83%	40.18%	\$16				
2024	30	\$163	\$213	\$57	\$433	8.83%	40.18%	\$15				

Incremental Customer Costs										
_1	2	3	4		5=3*4		6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	C	ustomer		O&M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed		Costs		Cost	Total Consumed	Cost	Adm. & Main O&A
2005	\$2.61	\$31	40.18%	\$	12.46	\$	29	40.18%	\$12	\$24
2006	\$2.67	\$32	40.18%	s	12.86	\$	30	40.18%	\$12	\$25
2007	\$2.74	\$33	40.18%	s	13.26	\$	31	40.18%	\$12	\$26
2008	\$2.80	\$34	40.18%	5	13.66	\$	31	40.18%	\$13	\$26
2009	\$2.87	\$34	40.18%	S	13.66	ş	32	40.18%	\$13	\$27
2010	\$2.94	\$35	40.18%	\$	14.06	\$	33	40.18%	\$13	\$27
2011	\$3,01	\$36	40.18%	\$	14.47	\$	34	40.18%	\$14	\$28
2012	\$3.08	\$37	40.18%	\$	14.87	\$	35	40.18%	\$14	\$29
2013	\$3,16	\$38	40.18%	ş	15.27	\$	35	40.18%	\$14	\$29
2014	\$3,23	\$39	40.18%	s	15.67	\$	36	40.18%	\$15	\$30
2015	\$3.31	\$40	40.18%	\$	16.07	\$	37	40.18%	\$15	\$31
2016	\$3.39	\$41	40.18%	\$	16.47	\$	38	40.18%	\$15	\$32
2017	\$3.47	\$42	40,18%	5	16.88	\$	39	40.18%	\$16	\$33
2018	\$3.55	\$43	40.18%	\$	17.28	\$	40	40.18%	\$16	\$33
2019	\$3,64	\$44	40.18%	\$	17.68	\$	41	40.18%	\$16	\$34
2020	\$3.73	\$45	40.18%	\$	18.08	\$	42	40.18%	517	\$35
2021	\$3.81	\$46	40.18%	S	18.48	5	43	40.18%	\$17	\$36
2022	\$3.91	\$47	40.18%	s	18.88	\$	44	40.18%	\$18	\$36
2023	\$4.00	548	40.18%	\$	19.29	\$	45	40,18%	\$18	\$37
2024	\$4.10	\$49	40.18%	s	19.69	\$	46	40.18%	\$18	\$38

Gas Costs									
1	ž	3	2*3						
	Therms	Per Therm	Gas Supply						
Year		Supply Cost	Cost						
2005	178	1.1900	\$212						
2006	178	\$1.2186	\$217						
2007	178	\$1.2478	\$222						
2008	178	\$1.2778	\$227						
2009	178	\$1.3084	\$233						
2010	178	\$1.3398	\$238						
2011	178	\$1.3720	\$244						
2012	178	\$1.4049	\$250						
2013	178	\$1,4386	\$256						
2014	178	\$1.4731	\$262						
2015	178	\$1.5085	\$269						
2016	178	\$1,5447	\$275						
2017	178	\$1.5818	\$282						
2018	178	\$1.6197	\$288						
2019	178	\$1.6586	\$295						
2020	178	\$1.6984	\$302						
2021	178	\$1.7392	\$310						
2022	178	\$1.7809	\$317						
2023	178	\$1.8237	\$325						
2024	178	\$1.8674	\$332						

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Cost Effective Results

Appliance Type

Heating System

Benefits							Costs						
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment Cost	Gas Installtion Costs	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$353	\$625	\$192	\$1,170	\$2,052	(\$3,850)	\$1,800	\$192	\$233	\$74	\$53	\$554
2006	2	\$358	0	\$197	\$555	0	0	0	\$197	\$239	\$74	\$53	\$562
2007	3	\$363	0	\$201	\$564	0	0	0	\$201	\$244	\$74	\$53	\$572
2008	4	\$368	0	\$206	\$574	0	0	0	\$206	\$250	\$74	\$53	\$583
2009	5	\$372	0	\$211	\$583	0	0	0	\$211	\$256	\$74	\$53	\$594
2010	6	\$377	0	\$216	\$593	0	0	0	\$216	\$262	\$74	\$53	\$605
2011	7	\$382	0	\$221	\$603	0	0	0	\$221	\$269	\$74	\$53	\$617
2012	8	\$386	0	\$227	\$613	0	0	0	\$227	\$275	\$74	\$53	\$629
2013	9	\$391	0	\$232	\$623	0	0	0	\$232	\$282	\$74	\$53	\$641
2014	10	\$396	0	\$238	\$633	0	0	0	\$238	\$288	\$74	\$53	\$653
2015	11	\$400	0	\$243	\$644	0	0	0	\$243	\$295	\$74	\$53	\$666
2016	12	\$405	0	\$249	\$654	0	0	0	\$249	\$302	\$74	\$53	\$678
2017	13	\$410	0	\$255	\$665	0	0	0	\$255	\$310	\$74	\$53	\$692
2018	14	\$414	100	\$261	\$776	2,860	(5,366)	2,300	\$261	\$317	\$74	\$53	\$499
2019	15	\$419	0	\$268	\$687	0	0	0	\$268	\$325	\$74	\$53	\$719
2020	16	\$424	0	\$274	\$698	0	0	0	\$274	\$333	\$74	\$53	\$733
2021	17	\$428	0	\$281	\$709	0	0	0	\$281	\$341	\$74	\$53	\$748
2022	18	\$433	0	\$287	\$720	0	0	0	\$287	\$349	\$74	\$53	\$763
2023	19	\$438	0	\$294	\$732	0	0	0	\$294	\$357	\$74	\$53	\$778
2024	20	\$442	0	\$301	\$744	0	0	0	\$301	\$366	\$74	\$53	\$794

Present Value \$6,653 of Benefits Present Value \$6,149 of Costs

Benefit/Cost	1.08
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Data

Appliance Type
Heating System

Escalators	0.0%	Electric rate:	2.4%	Customer Ch	0%	
O&M expense	2.4%	PGA Base R	0.0%			

Electric KWH Cost - Table 1						
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost		
Α	В	С	D	B*C*(1+D)		
2005	\$0.1020	3,150	10.00%	\$353		
2006	\$0.1034	3,150	10.00%	\$358		
2007	\$0.1047	3,150	10,00%	\$363		
2008	\$0.1061	3,150	10.00%	\$368		
2009	\$0.1074	3,150	10.00%	\$372		
2010	\$0.1088	3,150	10.00%	\$377		
2011	\$0.1101	3,150	10.00%	\$382		
2012	\$0.1115	3,150	10.00%	\$386		
2013	\$0.1128	3,150	10.00%	\$391		
2014	\$0.1142	3,150	10.00%	\$396		
2015	\$0.1155	3,150	10.00%	\$400		
2016	\$0.1169	3,150	10.00%	\$405		
2017	\$0.1182	3,150	10.00%	\$410		
2018	\$0.1196	3,150	10.00%	\$414		
2019	\$0,1209	3,150	1D.DD%	\$419		
2020	\$0.1223	3,150	10.00%	\$424		
2021	\$0.1236	3,150	10.00%	\$428		
2022	\$0.1250	3,150	16.00%	\$433		
2023	\$0.1263	3,150	10.00%	\$438		
2024	\$0,1277	3,150	10,00%	\$442		

	_	Gas Su	pply Cost	- Table 2	
	Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
L	Α	В	С	D	B*C*(1+D)
	2005	\$1.1900	178	10.00%	\$233
	2006	\$1.2186	178	10.00%	\$239
	2007	\$1.2478	178	10.00%	\$244
	2008	\$1.2778	178	10.00%	\$250
	2009	\$1.3084	178	10.00%	\$256
	2010	\$1.3398	178	10.00%	\$262
	2011	\$1.3720	178	10.00%	\$269
	2012	\$1.4049	178	10.00%	\$275
	2013	\$1.4386	178	10.00%	\$282
	2014	\$1.4731	178	10.00%	\$288
	2015	\$1.5085	178	10.00%	\$295
	2016	\$1.5447	178	10.00%	\$302
	2017	\$1.5818	178	10.00%	\$310
	2018	\$1.6197	178	10.00%	\$317
	2019	\$1.6586	178	10.00%	\$325
	2020	\$1.6984	178	10.00%	\$333
	2021	\$1.7392	178	10.00%	\$341
	2022	\$1,7809	178	10.00%	\$349
	2023	\$1,8237	178	10.00%	\$357
	200 A	04.0074	.70	40.000/	****

	Gas Energy Charge - Table 3							
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost				
Α	В	С	D	B*C*(1+D)				
2005	\$0.3767	178	10.00%	\$74				
2006	\$0.3767	178	10.00%	\$74				
2007	\$0.3767	178	10.00%	\$74				
2008	\$0.3767	178	10.00%	\$74				
2009	\$0.3767	178	10.00%	\$74				
2010	\$0.3767	178	10.00%	\$74				
2011	\$0.3767	178	10.00%	\$74				
2012	\$0.3767	178	10.00%	\$74				
2013	\$0.3767	178	10.00%	\$74				
2014	\$0.3767	178	10.00%	\$74				
2015	\$0.3767	178	10.00%	\$74				
2016	\$0.3767	178	10.00%	\$74				
2017	\$0.3767	178	10.00%	\$74				
2018	\$0.3767	178	10.00%	\$74				
2019	\$0.3767	178	10.00%	\$74				
2020	\$0.3767	. 178	10.00%	\$74				
2021	\$0.3767	178	10.00%	\$74				
2022	\$0.3767	178	10.00%	\$74				
2023	\$0.3767	178	10.00%	\$74				
2024	\$0.3767	178	10.00%	\$7.4				

Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	8	СС	o o	Ε	D/E	G	C*(D/E)*(1+Z
2005	\$10.00	\$120,00	178	443	40.18%	10.00%	\$53
2006	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2007	\$10.00	\$i20,00	178	443	40.18%	10.00%	\$53
2008	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2009	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2010	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2011	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2012	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2013	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2014	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2015	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2016	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2017	\$10.00	\$120,00	178	443	40.18%	10.00%	\$53
2018	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2019	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2020	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2021	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2022	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2023	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
2024	\$10.00	\$120.00	178	443	40 18%	10.00%	\$53

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Replacement Program
RIM Test and Participants Test Results

For

Clothes Drying Appliances

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Results

App	lian	ce T	ype

Cllothes Drying

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$19	\$60	\$14	\$92	\$60	\$9	\$7	\$100	\$176
2003	\$19	\$61	\$14	\$93	\$61	\$9	\$7	\$0	\$77
2004	\$19	\$62	\$14	\$95	\$62	\$9	\$7	\$0	\$78
2005	\$19	\$64	\$14	\$96	\$64	\$8	\$7	\$0	\$80
2006	\$19	\$65	\$14	\$98	\$65	\$8	\$7	\$0	\$81
2007	\$19	\$67	\$14	\$99	\$67	\$8	\$8	\$0	\$82
2008	\$19	\$69	\$14	\$101	\$69	\$7	\$8	\$0	\$84
2009	\$19	\$70	\$14	\$103	\$70	\$7	\$8	\$0	\$85
2010	\$19	\$72	\$14	\$104	\$72	\$7	\$8	\$0	\$87
2011	\$19	\$74	\$14	\$106	\$74	\$6	\$8	\$0	\$89
2012	\$19	\$75	\$14	\$108	\$75	\$6	\$9	\$0	\$90
2013	\$19	\$77	\$14	\$110	\$77	\$6	\$9	\$0	\$92
2014	\$19	\$ 79	\$14	\$111	\$79	\$6	\$9	\$0	\$94
2015	\$19	\$81	\$14	\$113	\$81	\$5	\$9	\$0	\$96
2016	\$19	\$83	\$14	\$115	\$83	\$5	\$10	\$0	\$98
2017	\$19	\$85	\$14	\$117	\$85	\$5	\$10	\$0	\$100
2018	\$19	\$87	\$14	\$119	\$87	\$5	\$10	\$0	\$102
2019	\$19	\$89	\$14	\$121	\$89	\$5	\$10	\$0	\$104
2020	\$ 19	\$91	\$14	\$124	\$91	\$4	\$10	\$0	\$106
2021	\$ 19	\$93	\$14	\$126	\$93	\$4	\$11	\$0	\$108

Present Value of Benefits \$1,014 Present Value of Costs \$940

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Calculated data

Appliance Type Clothes Drying

PGA Rate Escalator Base Rate Escalator Electric Rate escalator 2.4% 0% 2.4%

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter

2.80% 2.80% 4.40% 5.40%

Customer Charge - Gas Customer Charge - Electric Inflation factor

Table 1

R	Revenue - Energy Charge							
1	2	3	2.3					
Year	Therms	Base Rate	Total Rate					
2005	50	\$0.3767	\$19					
2006	50	\$0.3767	\$19					
2007	50	\$0.3767	\$19					
2008	50	\$0,3767	\$19					
2009	50	\$0.3767	\$19					
2010	50	\$0.3767	\$19					
2011	50	\$0,3767	\$19					
2012	50	\$0.3767	\$19					
2013	50	30.3767	\$19					
2014	50	\$0.3767	\$19					
2015	50	\$0.3767	\$19					
2016	50	50.3767	\$19					
2017	50	\$0.3767	\$19					
2018	50	\$0.3767	\$19					
2019	50	\$0.3767	\$19					
2020	50	\$0,3767	\$19					
2021	50	\$0.3767	\$19					
2022	50	\$0.3767	\$19					
2023	50	\$0,3767	\$19					
2024	50	\$0,3767	\$19					

Revenue - Co	st of Gas	
2	4	2*3
Therms	PGA Rate	Total Rate
50	\$1,1900	\$60
50	\$1.2186	\$61
50	\$1.2478	\$62
50	\$1.2778	\$64
50	\$1.3084	\$65
50	\$1.3398	\$67
50	\$1.3720	\$69
50	\$1,4049	\$70
50	\$1,4386	\$72
50	\$1,4731	\$74
50	\$1,5085	\$75
50	\$1,5447	\$77
50	\$1,5818	\$79
50	\$1.6197	\$81
50	\$1.6586	\$83
50	\$1,6984	\$85
50	\$1,7392	\$87
50	\$1,7809	\$89
50	\$1.8237	\$91
50	\$1,8674	\$93
	7hems 50 50 50 50 50 50 50 50 50 50 50 50 50	Therms PGA Pate 50 \$1,1900 50 \$1,2166 50 \$1,2478 50 \$1,2778 50 \$1,3084 50 \$1,3398 50 \$1,3720 50 \$1,4080 50 \$1,4080 50 \$1,4080 50 \$1,5080 50 \$1,5080 50 \$1,5080 50 \$1,5080 50 \$1,5080 50 \$1,5080 50 \$1,5080 50 \$1,5080 50 \$1,7382 50 \$1,7382 50 \$1,7389

1.	2	. 3	4	4*3
			Ratio of	
*			Thems	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust. Chq
2005	\$10.00	\$120.00	11.29%	\$14
2006	\$10.00	\$120.00	11.29%	\$14
2007	\$10.00	\$120,00	11.29%	\$14
2008	\$10.00	\$120.00	11.29%	\$14
2009	\$10.00	\$120.00	11.29%	\$14
2010	\$10.00	\$120.00	11.29%	\$14
2011	\$10.00	\$120.00	11.29%	\$14
2012	\$10.00	\$120.00	11.29%	\$14
2013	\$10.00	\$120.00	11.29%	314
2014	\$10,00	\$120.00	11.29%	\$14
2015	\$10.00	\$120.00	11.29%	\$14
2016	\$10.00	\$120.00	11.29%	\$14
2017	\$10.00	\$120.00	11.29%	\$14
2018	\$10.00	\$120.00	11.29%	\$14
2019	\$10.00	\$120.00	11.29%	\$14
2020	\$10,00	\$120.00	11.29%	\$14
2021	\$10.00	\$120.00	11.29%	\$14
2022	\$10.00	\$120.00	11.29%	\$14
2023	\$10.00	\$120,00	11.29%	514
2024	\$10.00	\$120.00	11.29%	\$14

Investment Carrying Costs									
. 1	2	3	4	5	6	7	В	6-7-8	
	Supply	Development	Service		Cristomer	Avg Cost	Ratio of Therms	Carrying Chg	
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svc	
2005	30	\$280	\$500	\$163	\$943	8,83%	11,29%	\$9	
2006	30	\$272	\$478	\$154	\$904	8.83%	11.29%	\$9	
2007	\$0	\$264	\$457	S146	\$867	8,83%	11.29%	\$9	
2008	\$0	\$257	\$437	\$138	\$832	8.83%	11.29%	\$8	
2009	30	\$250	\$418	\$131	\$799	8.83%	11.29%	\$8	
2010	\$0	\$243	\$400	5124	\$767	8,83%	11,29%	\$8	
2011	\$0	\$236	\$382	\$117	\$735	8.83%	11,29%	\$7	
2012	\$0	\$229	\$365	\$111	\$705	8,83%	11.29%	\$7	
2013	\$0	\$223	5349	\$105	\$677	8,83%	11.29%	\$7	
2014	\$0	\$217	\$334	\$99	\$650	8.83%	11.29%	\$6	
2015	\$0	\$211	\$319	\$94	\$624	8,83%	11.29%	\$6	
2016	\$0	\$205	\$305	\$89	\$599	8.83%	11.29%	\$6	
2017	\$0	\$199	\$292	\$84	\$575	8.83%	11.29%	\$6	
2018	30	\$193	\$279	\$79	\$551	8,83%	11,29%	\$5	
2019	50	\$188	\$267	\$75	\$530	8.83%	11.29%	\$5	
2020	50	\$183	\$255	571	\$509	8,83%	11.29%	\$5	
2021	\$0	\$178	\$244	\$67	\$489	8.83%	11.29%	\$5	
2022	30	\$173	\$233	\$63	\$469	8.83%	11,29%	\$5	
2023	\$0	\$168	\$223	\$60	\$451	8.83%	11.29%	\$4	
2024	20	\$163	\$213	\$57	\$433	8 83%	11.29%	\$4	

			Incre	emen	tal Cus	ton	ner Costs			
1	2	3	4		=3*4		6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Cu	stomer		0 & M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed	(Costs		Cost	Total Consumed	Cost	Adm. & Main O&M
2005	\$2.61	\$31	11.29%	5	3.50	\$	29	11.29%	\$3	\$7
2006	\$2.67	\$32	11.29%	S	3.61	5	30	11.29%	53	\$7
2007	\$2.74	\$33	11.29%	\$	3.72	\$	31	11.29%	\$3	\$7
2008	\$2.80	534	11.29%	\$	3.84	Ş	31	11.29%	S4	\$7
2009	\$2.87	\$34	11.29%	\$	3.84	\$	32	11.29%	\$4	\$7
2010	\$2.94	\$35	11,29%	\$	3.95	\$	33	11.29%	\$4	\$8
2011	53,01	\$36	11.29%	5	4.06	\$	34	11.29%	54	\$8
2012	\$3.08	\$37	11.29%	\$	4 18	\$	35	11.29%	54	\$8
2013	\$3.16	\$38	11.29%	S	4.29	\$	35	11.29%	54	\$8
2014	\$3,23	\$39	11.29%	\$	4.40	\$	36	11.29%	\$4	\$8
2015	\$3.31	\$40	11.29%	\$	4.51	\$	37	11.29%	54	\$9
2016	\$3.39	\$41	11.29%	\$	4.63	\$	38	11.29%	\$4	\$9
2017	\$3.47	\$42	11.29%	S	4.74	5	39	11.29%	\$4	\$9
2018	\$3.55	\$43	11.29%	\$	4.85	5	40	11.29%	\$4	\$9
2019	\$3,64	\$44	11,29%	\$	4.97	s	41	11.29%	\$5	\$10
2020	\$3.73	\$45	11.29%	s	5.08	\$	42	11.29%	\$5	\$10
2021	\$3.81	\$46	11,29%	S	5.19	s	43	11.29%	\$5	\$10
2022	\$3.91	\$47	11.29%	S	5.30	s	44	11.29%	\$5	\$10
2023	\$4.00	548	11.29%	\$	5.42	s	45	11.29%	\$5	\$10
2024	34.10	349	11.29%	5	5.53	Š	46	11,29%	\$5	511

	Gas	Costs	
1	2	3	2 3
	Therms	Per Therm	Gas Supply
Year		Supply Cost	Cost
2005	50	1.1900	\$60
2006	50	\$1.2186	\$61
2007	50	\$1.2478	\$62
2008	50	\$1.2778	\$64
2009	50	\$1,3084	\$65
2010	50	\$1.3398	\$67
2011	50	\$1.3720	\$69
2012	50	\$1,4049	\$70
2013	50	\$1.4386	\$72
2014	50	\$1,4731	\$74
2015	50	\$1,5085	\$75
2016	50	\$1.5447	\$77
2017	50	\$1.5818	\$79
2018	50	\$1,6197	\$81
2019	50	\$1,6536	\$83
2020	50	\$1.6984	\$85
2021	50	\$1.7392	\$87
2022	50	\$1.7809	\$89
2023	50	\$1.8237	\$91
2024	50	\$1,8674	593

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Cost Effective Results

Appliance Type

Clothes Drying

			Benefits	i					Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment Cost	Gas Installation Costs	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$164	\$100	\$36	\$300	\$379	(\$454)	\$350	\$36	\$65	\$21	\$15	\$412
2006	2	\$167	0	\$37	\$203	0	0	0	\$37	\$67	\$21	\$15	\$140
2007	3	\$169	0	\$38	\$207	0	0	0	\$38	\$69	\$21	\$15	\$142
2008	4	\$171	0	\$39	\$210	0	0	0	\$39	\$70	\$21	\$15	\$145
2009	5	\$173	0	\$40	\$213	0	0	0	\$40	\$72	\$21	\$15	\$147
2010	6	\$175	0	\$41	\$216	0	0	0	\$41	\$74	\$21	\$15	\$150
2011	7	\$177	0	\$42	\$219	0	0	0	\$42	\$75	\$21	\$15	\$153
2012	8	\$180	0	\$43	\$222	0	0	0	\$43	\$77	\$21	\$15	\$155
2013	9	\$182	0	\$44	\$225	0	0	0	\$44	\$79	\$21	\$15	\$158
2014	10	\$184	0	\$45	\$229	0	0	0	\$45	\$81	\$21	\$15	\$161
2015	11	\$186	0	\$46	\$232	0	0	0	\$46	\$83	\$21	\$15	\$164
2016	12	\$188	0	\$47	\$235	0	0	0	\$47	\$85	\$21	\$15	\$167
2017	13	\$191	0	\$48	\$238	0	0	0	\$48	\$87	\$21	\$15	\$170
2018	14	\$193	100	\$49	\$342	528	(633)	279	\$49	\$89	\$21	\$15	\$348
2019	15	\$195	0	\$50	\$245	0	0	0	\$50	\$91	\$21	\$15	\$177
2020	16	\$197	0	\$51	\$248	0	0	0	\$51	\$93	\$21	\$15	\$180
2021	17	\$199	0	\$53	\$252	0	0	0	\$53	\$96	\$21	\$ 15	\$184
2022	18	\$201	0	\$54	\$255	0	0	0	\$54	\$98	\$21	\$15	\$187
2023	19	\$204	0	\$55	\$259	0	0	0	\$55	\$100	\$21	\$15	\$191
2024	20	\$206	0	\$56	\$262	0	0	0	\$56	\$103	\$21	\$15	\$195

Present Value of Benefits \$2,312

Present Value of Costs \$1,851

Benefit/Cost	1.25
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Data

Appliance Type
Clothes Drying

O&M expense	2%	PGA Gas Rates	2%	Customer Ch	0%
Electric rates (fu	2%	PGA Base Rate	0%		

Electric KWH Cost - Table 1								
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost				
A	В	С	D	B*C*(1+D)				
2005	\$0.1020	1,465	10.00%	\$164				
2006	\$0.1034	1,465	10.00%	\$167				
2007	\$0.1047	1,465	10.00%	\$169				
2008	\$0.1061	1,465	10.00%	\$171				
2009	\$0.1074	1,465	10.00%	\$173				
2010	\$0.1088	1,465	10.00%	\$175				
2011	\$0.1101	1,465	10.00%	\$177				
2012	\$0,1115	1,465	10.00%	\$180				
2013	\$0.1128	1,465	10.00%	\$182				
2014	\$0.1142	1,465	10.00%	\$184				
2015	\$0.1155	1,465	10.00%	\$186				
2016	\$0.1169	1,465	10.00%	\$188				
2017	\$0.1182	1,465	10.00%	\$191				
2018	\$0.1196	1,465	10.00%	\$193				
2019	\$0.1209	1,465	10.00%	\$195				
2020	\$0.1223	1,465	10.00%	\$197				
2021	\$0.1236	1,465	10.00%	\$199				
2022	\$0.1250	1,465	10.00%	\$201				
2023	\$0.1263	1,465	10.00%	\$204				
2024	\$0.1277	1,465	10.00%	\$206				

Gas Supply Cost - Table 2							
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost			
A	В	C	Đ	B*C*(1+D)			
2005	\$1.1900	50	10.00%	\$65			
2006	\$1.2186	50	10.00%	\$67			
2007	\$1.2478	50	10.00%	\$69			
2008	\$1.2778	50	10.00%	\$70			
2009	\$1.3084	50	10.00%	\$72			
2010	\$1.3398	50	10.00%	\$74			
2011	\$1.3720	50	10.00%	\$75			
2012	\$1.4049	50	10.00%	\$77			
2013	\$1,4386	50	10.00%	\$79			
2014	\$1.4731	50	10.00%	\$81			
2015	\$1.5085	50	10.00%	\$83			
2016	\$1.5447	50	10,00%	\$85			
2017	\$1.5818	50	10.00%	\$87			
2018	\$1.6197	50	10.00%	\$89			
2019	\$1,6586	50	10.00%	\$91			
2020	\$1.6984	50	10.00%	\$93			
2021	\$1.7392	50	10.00%	\$96			
2022	\$1.7809	50	10.00%	\$98			
2023	\$1.8237	50	10.00%	\$100			
2024	\$1.8674	50	10,00%	\$103			

Gas Energy Charge - Table 3								
Year	Rate Per Therm	Annuał Therms used	Tax & Fees	Gas Cost				
Α	В	С	D	B*C*(1+D				
2005	\$0.3767	50	10.00%	\$21				
2006	\$0.3767	50	10.00%	\$21				
2007	\$0.3767	50	10.00%	\$21				
2008	\$0.3767	50	10.00%	\$21				
2009	\$0.3767	50	10.00%	\$21				
2010	\$0.3767	50	10.00%	\$21				
2011	\$0.3767	50	10.00%	\$21				
2012	\$0.3767	50	10.00%	\$21				
2013	\$0.3767	50	10.00%	\$21				
2014	\$0.3767	50	10.00%	\$21				
2015	\$0.3767	50	10.00%	\$21				
2016	\$0.3767	50	10.00%	\$21				
2017	\$0.3767	50	10.00%	\$21				
2018	\$0.3767	50	10.00%	\$21				
2019	\$0.3767	50	10.00%	\$21				
2020	\$0.3767	50	10.00%	\$21				
2021	\$0.3767	50	10.00%	\$21				
2022	\$0.3767	50	10.00%	\$21				
2023	\$0.3767	50	10.00%	\$21				
2024	\$0,3767	50	10.00%	\$21				

	Gas Customer Charge - Table 3									
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge			
Α	В	С	D	E	D/E	G	C*(D/E)*(1+Z			
2005	\$10	\$120.00	50	443	11.29%	10.00%	\$15			
2006	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2007	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2008	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2009	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2010	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2011	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2012	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2013	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2014	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2015	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2016	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2017	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2018	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2019	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2020	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2021	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2022	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2023	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			
2024	\$10.00	\$120.00	50	443	11.29%	10.00%	\$15			

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Replacement Program RIM Test and Participants Test Results

For

Cooking Appliances

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Results

Appliance Type

Cooking

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$17	\$54	\$12	\$83	\$54	\$8	\$6	\$100	\$168
2003	\$17	\$55	\$12	\$84	\$55	\$8	\$6	\$0	\$69
2004	\$17	\$56	\$12	\$85	\$56	\$8	\$6	\$0	\$70
2005	\$17	\$57	\$12	\$87	\$57	\$7	\$7	\$0	\$72
2006	\$17	\$59	\$12	\$88	\$59	\$7	\$7	\$0	\$73
2007	\$17	\$60	\$12	\$89	\$60	\$7	\$7	\$0	\$74
2008	\$17	\$62	\$12	\$91	\$62	\$7	\$ 7	\$0	\$75
2009	\$17	\$63	\$12	\$92	\$63	\$6	\$7	\$0	\$77
2010	\$17	\$65	\$12	\$94	\$65	\$6	\$7	\$0	\$78
2011	\$17	\$66	\$12	\$95	\$66	\$6	\$8	\$0	\$80
2012	\$17	\$68	\$12	\$97	\$68	\$6	\$8	\$0	\$81
2013	\$17	\$70	\$12	\$99	\$70	\$5	\$8	\$0	\$83
2014	\$17	\$71	\$12	\$100	\$71	\$ 5	\$8	\$0	\$85
2015	\$17	\$73	\$12	\$102	\$73	\$ 5	\$8	\$0	\$86
2016	\$17	\$75	\$12	\$104	\$75	\$5	\$9	\$0	\$88
2017	\$17	\$76	\$12	\$106	\$76	\$5	\$9	\$0	\$90
2018	\$17	\$78	\$12	\$107	\$78	\$4	\$9	\$0	\$92
2019	\$17	\$80	\$12	\$109	\$80	\$4	\$9	\$0	\$94
2020	\$17	\$82	\$12	\$111	\$82	\$4	\$9	\$0	\$96
2021	\$17	\$84	\$12	\$113	\$84	\$4	\$10	\$0	\$98

Present Value Present Value of Benefits \$913 of Costs \$855

Ratio 1.07

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program RIM Test - Calculated data

0% 0% 2%

0)	27.3 55.5 55.5 55.5 55.5 55.5 55.5 55.5 5	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2.88% 4.48% 4.44% 5.40% Table 2 Revenue -C R	2.80% Customer Charge- 4.80% Inflation factor 5.40% Table 2 Revenue - Customer Charge
E 1 1 1	331 33 33 33 33 33 33 33 33 33 33 33 33	273 273 273 273 274 856 856 856 856 856 857 857 857	2.3 (319. Total Pale 1.5.) (2.3 (3.6.) (3.6.	2 380% 4 440% 4 40% 4 4	2.80% Customer Charge 4.40% Inflation factor I

venue -	Revenue - Customer Charge	arge		
-	2	3	4	4.3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust, Chg	To Total	Cust. Cha
2002	\$10.00	\$120.00	10,16%	\$12
2006	\$10.00	\$120.00	10.16%	\$12
2007	\$10.00	\$120.00	10.16%	\$12
2008	\$10.00	\$120.00	10.16%	\$12
2009	\$10.00	\$120.00	10.16%	\$12
2010	\$10.00	\$120.00	10.16%	\$12
2011	\$10.00	\$120.00	10.16%	\$12
2012	\$10.00	\$120.00	10.16%	\$12
2013	\$10.00	\$120.00	10.16%	\$12
2014	\$10.00	\$120.00	10.16%	\$12
2015	\$10.00	\$120.00	10.16%	\$12
2016	\$10.00	\$120.00	10.15%	\$12
2017	\$10.00	\$120.00	10.16%	\$12
2018	\$10.00	\$120.00	10.16%	\$12
2019	\$10.00	\$120.00	10.15%	\$12
2020	\$10.00	\$120.00	10.16%	\$12
2021	\$10,00	\$120.00	10.16%	\$12
2022	\$10.00	\$120.00	10.16%	\$12
2023	\$10.00	\$120.00	10.16%	\$12
2024	\$10.00	\$120.00	10.16%	\$12

			Incre	incrementaal Customer Costs	2	inel Co.			
-	2	3	4	5=3*4		9	7	8=6°7	5+8
	Adm.	Annual	Ratio Therms To	Customer		0.8 M	Ratio Therms To	Main	New Custome
Year	Cost	Adm. Cost	Adm. Cost Total Consumed	Costs		Cost	Total Consumed	Cost	Adm. & Main O.8
2005	\$2.61	\$31	10.16%	\$ 3.15	n	53	10.16%	E	88
2006	52.67	\$32	10.16%	\$ 3.25	v	30	10.16%	S	\$6
2007	\$2.74	233	10.16%	\$ 3.35	49	33	10.16%	S	9\$
2008	\$2.80	\$34	10.16%	\$ 3,45	v	2	10.16%	S	27
2009	\$2.87	534	10.16%	\$ 3.45	v	32	10.16%	S	2.5
2010	\$2.94	\$35	10,16%	3.56	57	33	10.16%	24	\$7
2011	53.01	\$36	10.16%	3.66	47	ਲ	10.16%	S	25
2012	\$3.08	\$37	10.18%	5 3.76	s	55	10.16%	\$	22
2013	\$3.16	\$38	10.16%	\$ 3.86	49	35	10.16%	R	\$7
2014	\$3,23	839	10,16%	5 3.96	v,	36	10.16%	X,	88
2015	\$3.31	240	10.16%	5 4.06	s	37	10.16%	33	85
2016	\$3.39	241	10,16%	5 4.16	•	38	10.16%	z	885
2017	\$3.47	\$42	10.16%	5 4.27	•	33	10.16%	z	\$8
2018	\$3.55	£	10.16%	\$ 4,37	v	40	10.16%	ā	28
2019	\$3.64	\$44	10,16%	\$ 4.47	v	4	10.16%	ž	6\$
2020	\$3.73	\$45	10.16%	\$ 4.57	s	42	10.16%	3	\$3
2021	53.81	S46	10.16%	\$ 4.67	s	43	10.16%	3	6\$
2022	53,91	247	10.16%	\$ 4.77	s	\$	10.16%	З	53
2023	\$4.00	248	10.16%	\$ 4.88	"	45	10.16%	\$5	8
2024	\$4.10	549	10.16%	5 4,98	v	46	10.16%	\$2	\$10

					Incr	ementaal	Incrementaal Customer Costs	Costs			
8	8-4-9		2	m	4	5=3-4	9		7	1-9=B	8+5
Ratio of Therms	Camying Chg		Adm.	Annual	Ratio Therms To	Customer	0.8M	_	Ratio Therms To	Main	New Customer
Consumed To Total	Mains & Svc	Year	Cost	Adm. Cost	Total Consumed	Costs	Cost		Total Consumed	S	Adm. & Main O&M
10.16%	\$\$	2005	\$2.61	\$31	10.16%	\$ 3.15	s	1	10.16%	B	98
10.16%	88	2006	52.67	\$32	10.16%	\$ 3.25	· v		16%	R	. 58
10.16%	85	2007	\$2.74	\$33	10.16%	\$ 3.35		•	10,16%	S	. %
10.16%	25	2008	\$2.80	\$34	10.16%	\$ 3.45		31 10.	16%	R	. 25
10,16%	25	2009	\$2.87	534	10.16%	\$ 3.45		32 10	16%	×	i is
10.16%	lā	2010	\$2.94	\$35	10,16%	5 3.56	**	33 10.	16%	12	. 55
10.16%	57	2011	\$3.01	\$36	10.16%	3.66	**	34 10	10.16%	S	LS
10.16%	\$6	2012	\$3.08	\$37	10.18%	3,76	5	10.	16%	24	25
10.16%	26	2013	\$3.16	\$38	10.16%	\$ 3.86	89	35 10	16%	S	. 15
10.16%	Se	2014	\$3,23	\$39	10,16%	5 3.96		36 10.	16%	3	25
10.16%	96	2015	\$3.31	\$40	10.16%	\$ 4.06		.01 78	16%	3	85
10.16%	×	2016	\$3.39	\$41	10.16%	5 4.16	.,	10.	16%	Z	85
10.15%	12	2017	\$3.47	\$42	10.16%	\$ 4.27	.,	10.	16%	3	828
10.16%	ş	2018	\$3,55	\$43	10.16%	\$ 4,37	5	10.	16%	š	85
10.16%	55	2019	\$3.64	\$44	10,16%	\$ 4.47		.01 10	16%	ž	S.
10.16%	55	2020	\$3.73	\$45	10.16%	\$ 4.57		10.	16%	3	53
10.16%	\$4	2021	53.81	346	10.16%	\$ 4.67		.01 10	10.16%	3	65
10.16%	\$4	2022	\$3,91	247	10.16%	\$ 4.77	,	10.	10.16%	я	\$
10.16%	z	2023	\$4.00	248	10.16%	\$ 4.88		10.	0.16%	\$5	50
10.16%	25	2024	\$4.10	549	10.16%	\$ 4,98	8	.01	0.16%	\$2	\$10

Customer Customer Sept. 289.43 Sept. 289.44 Sept. 289.45
Table 4

Investment Carrying Costs

Table 3

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Cost Effective Results

Appliance Type

Cooking

			Benefits						Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1		1						Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$147	\$100	\$36	\$283	\$449	(\$574)	\$400	\$36	\$59	\$19	\$13	\$402
2006	2	\$149	0	\$37	\$186	0	0	0	\$37	\$60	\$19	\$13	\$129
2007	3	\$151	0	\$38	\$189	0	0	0	\$38	\$62	\$19	\$13	\$132
2008	4	\$153	0	\$39	\$191	0	0	0	\$39	\$63	\$19	\$13	\$134
2009	5	\$155	0	\$40	\$194	0	0	0	\$40	\$65	\$19	\$13	\$136
2010	6	\$157	0	\$41	\$197	0	0	0	\$41	\$66	\$19	\$ 13	\$139
2011	7	\$159	0	\$42	\$200	0	0	0	\$42	\$68	\$19	\$13	\$141
2012	8	\$161	0	\$43	\$203	0	0	0	\$43	\$70	\$19	\$13	\$144
2013	9	\$163	0	\$44	\$206	0	0	0	\$44	\$71	\$19	\$13	\$147
2014	10	\$165	0	\$45	\$209	0	0	0	\$45	\$73	\$19	\$13	\$150
2015	11	\$166	0	\$46	\$212	0	0	0	\$46	\$75	\$19	\$13	\$152
2016	12	\$168	0	\$47	\$215	0	0	0	\$47	\$76	\$19	\$13	\$155
2017	13	\$170	0	\$48	\$218	0	0	0	\$48	\$78	\$19	\$13	\$158
2018	14	\$172	100	\$49	\$321	626	(800)	348	\$49	\$80	\$19	\$13	\$335
2019	15	\$174	0	\$50	\$224	0	0	0	\$50	\$82	\$ 19	\$13	\$164
2020	16	\$176	0	\$51	\$228	0	0	0	\$51	\$84	\$19	\$13	\$168
2021	17	\$178	0	\$53	\$231	0	0	0	\$53	\$86	\$19	\$13	\$171
2022	18	\$180	0	\$54	\$234	0	0	0	\$54	\$88	\$19	\$13	\$174
2023	19	\$182	0	\$55	\$237	0	0	0	\$55	\$90	\$19	\$13	\$177
2024	20	\$184	0	\$56	\$240	0	0	0	\$56	\$92	\$19	\$13	\$181

Present Value 52,126

Present Value 51,739

Benefit/Cost	1.22
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Replacement Program Participants Test - Data

Appliance Type
Cooking

 O&M expense
 2%
 PGA Gas Ra
 2%
 Customer C1
 0%

 Electric rates (fu
 2%
 PGA Base R
 0%

	Electric	KWH Cost - Ta	able 1	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
Α	В	СС	_ D	B*C*(1+D)
2005	\$0.1020	1,310	10.00%	\$147
2006	\$0.1034	1,310	10.00%	\$149
2007	\$0.1047	1,310	10.00%	\$151
2008	\$0.1061	1,310	10.00%	\$153
2009	\$0.1074	1,310	10.00%	\$155
2010	\$0.1088	1,310	10.00%	\$157
2011	\$0.1101	1,310	10.00%	\$159
2012	\$0.1115	1,310	10.00%	\$161
2013	\$0.1128	1,310	10.00%	\$163
2014	\$0.1142	1,310	10.00%	\$165
2015	\$0.1155	1,310	10.00%	\$166
2016	\$0.1169	1,310	10.00%	\$168
2017	\$0.1182	1,310	10.00%	\$170
2018	\$0.1196	1,310	10.00%	\$172
2019	\$0.1209	1,310	10.00%	\$174
2020	\$0.1223	1,310	10.00%	\$176
2021	\$0.1236	1,310	10.00%	\$178
2022	\$0.1250	1,310	10.00%	\$180
2023	\$0.1263	1,310	10.00%	\$182
2024	\$0,1277	1,310	10.00%	\$184

	Gas Su	pply Cost	Table 2	
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
A	8	С	D	B*C*(1+D)
2005	\$1.1900	45	10.00%	\$59
2006	\$1.2186	45	10.00%	\$60
2007	\$1.2478	45	10.00%	\$62
2008	\$1.2778	45	10.00%	\$63
2009	\$1.3084	45	10.00%	\$65
2010	\$1,3398	45	10.00%	\$66
2011	\$1.3720	45	10.00%	\$68
2012	\$1.4049	45	10.00%	\$70
2013	\$1.4386	45	10.00%	\$71
2014	\$1.4731	45	10.00%	\$73
2015	\$1.5085	45	10.00%	\$75
2016	\$1.5447	4 5	10.00%	\$76
2017	\$1.5818	45	10.00%	\$78
2018	\$1.6197	45	10.00%	\$80
2019	\$1.6586	45	10.00%	\$82
2020	\$1.8984	45	10.00%	\$84
2021	\$1.7392	45	10.00%	\$86
2022	\$1.7809	45	10.00%	\$88
2023	\$1.8237	45	10.00%	\$90
2024	\$1.8674	45	10.00%	\$92

	Gas Energy Charge - Table 3								
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost					
Α	В	с	D	B*C*(1+D)					
2005	\$0.3767	45	10.00%	\$19					
2006	\$0.3767	45	10.00%	\$19					
2007	\$0.3767	45	10.00%	\$19					
2008	\$0.3767	45	10.00%	\$19					
2009	\$0.3767	45	10.00%	\$19					
2010	\$0.3767	45	10.00%	\$19					
2011	\$0.3767	45	10.00%	\$19					
2012	\$0.3767	4 5	10.00%	\$19					
2013	\$0.3767	45	10.00%	\$19					
2014	\$0.3767	45	10.00%	\$19					
2015	\$0.3767	45	10.00%	\$19					
2016	\$0.3767	45	10.00%	\$19					
2017	\$0.3767	45	10.00%	\$19					
2018	\$0.3767	45	10.00%	\$19					
2019	\$0.3767	45	10,00%	\$19					
2020	\$0.3767	45	10.00%	\$19					
2021	\$0.3767	45	10.00%	\$19					
2022	\$0.3767	45	10.00%	\$19					
2023	\$0.3767	45	10.00%	\$19					
2024	\$0.3767	45	10.00%	\$19					

		Gas	Customer Cl		ole 3		
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	С	D	Ę	D/E	G	C*(D/E)*(1+2
2005	\$10	\$120.00	45	443	10.16%	10.00%	\$13
2006	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2007	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2008	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2009*	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2010	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2011	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2012	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2013	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2014	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2015	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2016	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2017	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2018	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2019	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2020	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2021	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2022	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2023	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2024	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Retention Program Summary of RIM Test and Participants Test Results

	Proposed <u>Allowance</u>	Participants Test	RIM Test
Gas Storage Tank Water Heating	\$350	1.45	1.28
Gas Tankless Water Heating	\$450	1.32	1.24
Gas Heating	\$350	1.12	1.29
Gas Clothes Drying	\$100	1.41	1.29
Gas Cooking	\$100	1.39	1.27

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Retention Program RIM Test and Participants Test Results

For

Storage Tank Water Heating

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Results

Appliance Type
Storage Tank Water Heating

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge	Gas	Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$64	\$202	\$46	\$312	\$202	\$0	\$0	\$350	\$552
2003	\$64	\$207	\$46	\$317	\$207	\$0	\$0	\$0	\$207
2004	\$64	\$212	\$46	\$322	\$212	\$0	\$0	\$0	\$212
2005	\$64	\$217	\$46	\$327	\$217	\$0	\$0	\$0	\$217
2006	\$64	\$222	\$46	\$333	\$222	\$0	\$0	\$0	\$222
2007	\$64	\$228	\$46	\$338	\$228	\$0	\$0	\$0	\$228
2008	\$64	\$233	\$46	\$343	\$233	\$0	\$0	\$0	\$233
2009	\$64	\$239	\$46	\$349	\$239	\$0	\$0	\$0	\$239
2010	\$64	\$245	\$46	\$355	\$245	\$0	\$0	\$0	\$245
2011	\$64	\$250	\$46	\$361	\$250	\$0	\$0	\$0	\$250
2012	\$64	\$256	\$46	\$367	\$256	\$0	\$0	\$0	\$256
2013	\$64	\$263	\$46	\$373	\$263	\$0	\$0	\$0	\$263
2014	\$64	\$269	\$46	\$379	\$269	\$0	\$0	\$0	\$269
2015	\$64	\$275	\$46	\$385	\$275	\$0	\$0	\$0	\$275
2016	\$64	\$282	\$46	\$392	\$282	\$0	\$0	\$0	\$282
2017	\$64	\$289	\$46	\$399	\$289	\$0	\$0	\$0	\$289
2018	\$64	\$296	\$46	\$406	\$296	\$0	\$0	\$0	\$296
2019	\$ 64	\$303	\$46	\$413	\$303	\$0	\$0	\$0	\$303
2020	\$64	\$310	\$46	\$420	\$310	\$0	\$0	\$0	\$310
2021	\$64	\$317	\$46	\$428	\$317	\$0	\$0	\$0	\$317

Present Value of Benefits

\$3,448

Present Value of Costs

\$2,691

Benefit/Cost	
Ratio	1.28

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Calculated data

0% 0% 2.4%

Customer Charge - Gas Customer Charge - Electric Inflation factor

Table 2

		84	5 0																							
	eating	calator	scalator escalator			2*3	Total Rate	\$64	\$64	\$64	\$64	\$64	\$64	\$64	\$64	\$64	3 3	\$64	\$64	\$64	\$64	264	\$64	\$64	264	864
Appliance Type	Tank Water Heating	PGA Rate Escalator	Base Rate Escalator Electric Rate escalator		Energy charge	е	Base Rate	\$0.3767	\$0.3767	\$0.3767	\$0.3767	\$0.3767	\$0.3767	\$0.3767	50.3767	\$0.3767	\$0.3767	\$0.3767	\$0.3767	\$0,3767	\$0,3767	\$6.3767	\$0,3767	\$0.3767	50.3767	50.3767
Applian					Revenue - Er	2	Therms	170	170	170	170	170	170	170	170	5,1	170	170	170	170	170	170	170	170	170	170
	Storage			Table 1		-	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024

scalator scalator escalator	2.4% 0.0% 2.4%	Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter Depreciation Rate - Meter	supply Main Sevelopment Ma Service Line Aeter	. <u>e</u>		2.80% 2.80% 4.40% 5.40%	
		Table 1a					
afe		R	Revenue - Cost of Gas	of Gas			
E,		-	2	4	2*3		
Total Rate		Year	Therms	PGA Rate	Total Rate		
\$64		2005	170	\$1.1900	\$202		
\$64		2006	170	\$1.2186	\$207		
\$64		2007	170	\$1.2478	\$212		
\$64		2008	170	\$1,2778	\$217		
\$64		2009	170	\$1,3084	\$222		
\$64		2010	170	\$1,3398	\$228		
\$64		2011	170	\$1.3720	\$233		
\$64		2012	170	\$1,4049	\$239		
\$64		2013	170	\$1.4386	\$245		
\$64		2014	170	\$1,4731	\$250		
\$64		2015	170	\$1.5085	\$256		
\$64		2016	170	\$1.5447	\$263		
\$64		2017	170	\$1,5818	\$269		
\$64		2018	170	\$1,6197	\$275		
\$64		2019	170	\$1,6586	\$282		
\$64		2020	170	\$1.6984	\$289		
\$64		2021	170	\$1,7392	\$296		
\$64		2022	170	\$1,7809	\$303		
264		2023	170	\$1.8237	\$310		
864		2024	170	\$1.8674	\$317		

er charge	4	Ratio of	Therms	Consumed	To Total	38.37%	38.37%	38,37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38,37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%	38.37%
Revenue - Customer chamo	3			Annual	Cust. Chq	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120,00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00
Rev	2			Customer	Charge/Mo	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10,00	\$10.00	\$10.00	210.00
	-				Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
					ate.																				
	2*3				۲	\$202	5207	5212	\$217	\$222	\$228	\$233	\$239	\$245	\$250	\$256	\$263	\$269	\$275	\$282	\$289	\$256	\$303	\$310	\$317
t of Gas	4 2.3				a																	\$1,7392 \$296			\$1.8674 \$317
Revenue - Cost of Gas	2 4 2-3				15 PGA Rate	\$1.1900	\$1.2186	\$1.2478	\$1.2778	\$1,3084	\$1,3398	\$1.3720	\$1,4049	\$1.4386	\$1,4731	\$1.5085	\$1.5447	\$1.5818	\$1,6197	\$1,6586	\$1.6984	\$1,7392	\$1,7809	\$1.8237	

			Incr	incremental customer costs	Stomer Co.	515		
-	2	3	Ą	5=3*4	9	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Customer	0.8 M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed	Costs	Cost	Total Consumed	Cost	Adm. & Main O&M
2002	20.00	20	38.37%		s	38.37%	80	\$0
2006	20.00	95	38.37%	•5	•	38.37%	80	80
2007	\$0.00	SO	38.37%	•	,	38.37%	S	So
2008	\$0.00	SO	38.37%	•	,	38.37%	S	\$0
2009	\$0.00	So	38.37%	9	·	38.37%	8	95
2010	\$0.00	20	38.37%		,	38.37%	SO	\$
2011	80.00	20	38.37%	S	,	38.37%	SO	Ş
2012	80.00	\$0	38.37%	S	•	38.37%	S	95
2013	30.00	80	38.37%			38.37%	0\$	80
2014	\$0.00	8	38.37%		,	38.37%	20	80
2015	\$0.00	80	38,37%	,	,	38.37%	S	\$0
2016	\$0.00	S	38.37%	· S	•	38.37%	So	80
2017	\$0.00	20	38.37%	, so	•	38.37%	So	\$0
2018	20.00	S	38.37%	,	,	38.37%	8	80
2019	\$0.00	30	38.37%	S	s	38.37%	20	\$0
2020	20.00	20	38.37%	, s	,	38,37%	20	0\$
2021	\$0.00	80	38.37%	2	,	38.37%	93	\$0
2022	20.00	SO	38.37%	·	•	38.37%	8	25
2023	\$0.00	20	38.37%		•	38.37%	80	\$0
2024	80.00	20	38.37%		,	38.37%	So	95

Year 2005 2006 2007 2008 2008 2009 2010 2011 2012 2014 2014 2015 2015 2015 2015 2015 2018 2018 2020 2020 2023 2023 2023 2023

Table 4

Investment Carrying Costs

luci	Incremental Customer Costs	S	tomer	SoS.	2				Gas	Gas Costs
4	5=3*4	4	9		7	2-9=8	5+8	-	2	le.
herms To	Customer	ner	0 & M	×	Ratio Therms To	Main	New Customer		Therms	PerT
consumed	Costs	s	Cost	76	Total Consumed	Cost	Adm, & Main O&M	Year		Supply
.37%	s		s		38.37%	20	80	2005	170	1.19
.37%	40	i	•	,	38.37%	20	os S	2006	170	\$1.2
.37%	so.		s		38.37%	8	20	2007	170	51.24
37%	ω	,	v,	,	38.37%	ŝ	80	2008	170	\$1.2
.37%	w	,	v	,	38.37%	S	\$0	2009	170	\$1,36
.37%	69	,	.,	,	38.37%	S	25	2010	170	\$13
37%	s		'n		38.37%	SO	0\$	2011	170	\$13
37%	s	,	•>	,	38.37%	S	0\$	2012	170	51.40
37%	s	,	٠,		38.37%	20	80	2013	170	\$1.4
37%	ø	,	•		38.37%	20	80	2014	170	\$1.47
37%	s		s		38.37%	S	80	2015	170	\$1,50
.37%	s	,	٠,		38.37%	S	80	2016	170	\$1.54
37%	s	,	s,		38.37%	SS	\$00	2017	170	\$1.56
37%	v		s		38.37%	8	80	2018	170	51.6
37%	S	,	s	,	38.37%	S	\$0	2019	170	\$1.65
.37%	vi	,	۰,	,	38,37%	98	08	2020	170	51.6
.37%	s	,	s	,	38.37%	S	\$0	2021	170	51.73
.37%	s	,	s	,	38.37%	S	0\$	2022	170	51.78
.37%	(A	,	•		38.37%	80	0\$	2023	170	\$1.82
.37%	s		s	1	38.37%	SO	80	2024	170	\$1.86

Supply Cost 11900 Cost 12166 St 12166 St 12166 St 12166 St 12178 St 12188 S

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Cost Effective Results

Appliance Type

Storage Tank Water Heating

			Benefits	S					Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Costs	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$536	\$350	\$36	\$922	\$259	(\$314)	\$250	\$36	\$223	\$70	\$51	\$575
2006	2	\$543	0	\$37	\$580	0	0	0	\$37	\$228	\$70	\$51	\$386
2007	3	\$550	0	\$38	\$588	0	0	0	\$38	\$233	\$70	\$51	\$392
2008	4	\$557	0	\$39	\$596	0	0	0	\$39	\$239	\$70	\$51	\$399
2009	5	\$564	0	\$40	\$604	0	0	0	\$40	\$245	\$70	\$51	\$405
2010	6	\$571	0	\$41	\$612	0	0	0	\$41	\$251	\$70	\$ 51	\$412
2011	7	\$578	0	\$42	\$620	0	0	0	\$42	\$257	\$70	\$51	\$419
2012	8	\$585	0	\$43	\$628	0	0	0	\$43	\$263	\$70	\$51	\$426
2013	9	\$592	0	\$44	\$636	0	0	0	\$44	\$269	\$70	\$51	\$434
2014	10	\$599	0	\$45	\$644	0	0	0	\$45	\$275	\$70	\$51	\$441
2015	11	\$607	0	\$46	\$652	0	0	0	\$46	\$282	\$70	\$51	\$449
2016	12	\$614	0	\$47	\$660	0	0	0	\$47	\$289	\$70	\$51	\$457
2017	13	\$621	0	\$48	\$669	0	0	0	\$48	\$296	\$70	\$51	\$465
2018	14	\$628	100	\$49	\$777	361	(438)	348	\$49	\$303	\$70	\$51	\$745
2019	15	\$635	0	\$50	\$685	0	0	0	\$50	\$310	\$70	\$51	\$481
2020	16	\$642	0	\$51	\$693	0	0	0	\$51	\$318	\$70	\$51	\$490
2021	17	\$649	0	\$53	\$702	0	0	0	\$53	\$325	\$70	\$51	\$499
2022	18	\$656	0	\$54	\$710	0	0	0	\$54	\$333	\$70	\$51	\$508
2023	19	\$663	0	\$55	\$718	0	0	0	\$55	\$341	\$70	\$51	\$517
2024	20	\$670	0	\$56	\$727	0	0	0	\$56	\$349	\$70	\$51	\$527

Present Value of Benefits

\$6,528

Present Value of Costs \$4,487

Benefit/Cost	1.45
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Data

Appliance Type

Storage Tank Water Heating

O&M expense	2.4%	PGA Gas Rates	2.4%	Customer Charge	0%
Electric rates (fe	2.4%	PGA Base Rate	0.0%		

	Electric	KWH Cost - T	able 1	
Year	Unit KWH Cost	Annual XWH used	Tax & Fees	Electric Cost
A	B	С	D	B*C*(1+D)
2005	\$0.1020	4,773	10%	\$536
2006	\$0.1034	4,773	10%	\$543
2007	\$0.1047	4,773	10%	\$550
2008	\$0.1061	4,773	10%	\$557
2009	\$0.1074	4,773	10%	\$564
2010	\$0.1088	4,773	10%	\$571
2011	\$0.1101	4,773	10%	\$578
2012	\$0.1115	4,773	10%	\$585
2013	\$0.1128	4,773	10%	\$592
2014	\$0.1142	4,773	10%	\$599
2015	\$0.1155	4,773	10%	\$607
2016	\$0,1169	4,773	10%	\$614
2017	\$0.1182	4,773	10%	\$621
2018	\$0.1196	4,773	10%	\$628
2019	\$0.1209	4,773	10%	\$635
2020	\$0.1223	4,773	10%	\$642
2021	\$0.1236	4,773	10%	\$649
2022	\$0.1250	4,773	10%	\$656
2023	\$0.1263	4,773	10%	\$663
2024	\$0.1277	4,773	10%	\$670

	Gas Supply	Cost - Tabl	e 2	
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
Α	В	С	D	B*C*(1+D)
2005	\$1.1900	170	10%	\$223
2006	\$1.2186	170	10%	\$228
2007	\$1.2478	170	10%	\$233
2008	\$1.2778	170	10%	\$239
2009	\$1.3084	170	10%	\$245
2010	\$1.3398	170	10%	\$251
2011	\$1.3720	170	10%	\$257
2012	\$1.4049	170	10%	\$263
2013	\$1.4386	170	10%	\$269
2014	\$1.4731	170	10%	\$275
2015	\$1.5085	170	10%	\$282
2016	\$1.5447	170	10%	\$289
2017	\$1.5818	170	10%	\$296
2018	\$1.6197	170	10%	\$303
2019	\$1.6586	170	10%	\$310
2020	\$1.6984	170	10%	\$318
2021	\$1.7392	170	10%	\$325
2022	\$1.7809	170	10%	\$333
2023	\$1.8237	170	10%	\$341
2024	\$1.8674	170	10%	\$349

	Gas Ene	rgy Charge	- Table 3	
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost
A	В	С	D	B*C*(1+D
2005	\$0,3767	170	10%	\$70
2006	\$0.3767	170	10%	\$70
2007	\$0.3767	170	10%	\$70
2008	\$0.3767	170	10%	\$70
2009	\$0.3767	170	10%	\$70
2010	\$0.3767	170	10%	\$70
2011	\$0.3767	170	10%	\$70
2012	\$0.3767	170	10%	\$70
2013	\$0.3767	170	10%	\$70
2014	\$0.3767	170	10%	\$70
2015	\$0.3767	170	10%	\$70
2016	\$0.3767	170	10%	\$70
2017	\$0.3767	170	10%	\$70
2018	\$0.3767	170	10%	\$70
2019	\$0,3767	170	10%	\$70
2020	\$0.3767	170	10%	\$70
2021	\$0.3767	170	10%	\$70
2022	\$0.3767	170	10%	\$70
2023	\$0.3767	170	10%	\$70
2024	\$0.3767	170	10%	\$70

			Gas Custom	er Charge -	Table 4		
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	c	D	E	D/E	G	C*(D/E)*(1+Z)
2005	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2006	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2007	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2008	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2009	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2010	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2011	\$10.00	\$120.00	170	443	38,37%	10%	\$51
2012	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2013	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2014	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2015	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2016	\$10.00	\$120,00	170	443	38.37%	10%	\$51
2017	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2018	\$10.00	\$120,00	170	443	38,37%	10%	\$51
2019	\$10.00	\$120.00	170	443	38 37%	10%	\$51
2020	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2021	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2022	\$10.00	\$120.00	170	443	38.37%	10%	\$51
2023	\$10,00	\$120.00	170	443	38.37%	10%	\$51
2024	\$10.00	\$120.00	170	443	38.37%	10%	\$51

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Retention Program
RIM Test and Participants Test Results

For

Tankless Water Heating

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Results

Appliance Type

Tankless Water Heating

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$57	\$179	\$46	\$281	\$179	\$0	\$0	\$450	\$629
2003	\$57	\$183	\$46	\$285	\$183	\$0	\$0	\$0	\$183
2004	\$57	\$187	\$46	\$290	\$187	\$0	\$0	\$0	\$187
2005	\$57	\$192	\$46	\$294	\$192	\$0	\$0	\$0	\$192
2006	\$57	\$196	\$46	\$299	\$196	\$0	\$0	\$0	\$196
2007	\$57	\$201	\$46	\$304	\$201	\$0	\$0	\$0	\$201
2008	\$57	\$206	\$46	\$308	\$206	\$0	\$0	\$0	\$206
2009	\$57	\$211	\$46	\$313	\$211	\$0	\$0	\$0	\$211
2010	\$57	\$216	\$46	\$318	\$216	\$0	\$0	\$0	\$216
2011	\$57	\$221	\$46	\$324	\$221	\$0	\$0	\$0	\$221
2012	\$57	\$226	\$46	\$329	\$226	\$0	\$0	\$0	\$226
2013	\$57	\$232	\$46	\$334	\$232	\$0	\$0	\$0	\$232
2014	\$57	\$237	\$46	\$340	\$237	\$0	\$0	\$0	\$237
2015	\$57	\$243	\$46	\$346	\$243	\$0	\$0	\$0	\$243
2016	\$57	\$249	\$46	\$351	\$249	\$0	\$0	\$0	\$249
2017	\$57	\$255	\$46	\$357	\$255	\$0	\$0	\$0	\$255
2018	\$57	\$261	\$46	\$363	\$261	\$0	\$0	\$0	\$261
2019	\$57	\$267	\$46	\$370	\$267	\$0	\$0	\$0	\$267
2020	\$57	\$274	\$46	\$376	\$274	\$0	\$0	\$0	\$274
2021	\$57	\$280	\$46	\$383	\$280	\$0	\$0	\$0	\$280

\$3,095

Present Value of Benefits

Present Value of Costs \$2,505

Benefit/Cost Ratio 1.24

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Calculated Data

9% 2%

Customer Charge - Gas Customer Charge - Electric Inflation factor

Revenue - Customer Charge

Tankle	ss W	Appliance Type Tankless Water Heating	ating				
	4 10 10	PGA Rate Escalator Base Rate Escalator Electric Rate escalator	alator calator sscalator	2% 0% 2%	Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter Depreciation Rate - Meter	Supply Main Development Ma Service Line Meter	. <u>e</u>
Table 1					Table 1a		
Revent	ne - E	Revenue - Energy Charge	rge			Revenue - Cost of Gas	st of G
-	2	6	2.3			2	
Year The	Therms	Base Rate	Total Rate		Year	Thomas	0
Ī	120	\$0.3767	\$57	1	2005	150	S1 1900
_	20	20.3767	\$57		2006	150	\$12186
	20	\$0.3767	\$57		2007	150	\$1.2478
	8 5	\$0.3767	257		2008	150	\$1.2778
2003	20 5	\$0.3767	224		2009	150	\$1,3084
	2 %	50.3767	255		2010	150	\$1.3398
,	20	50.3767	24.5		2011	150	\$1,3720
	20	\$0,3767	\$57		2012	150	\$1.4049
_	20	\$0.3767	\$57		2014	150	\$1.4731
_	20	\$0.3767	\$57		2015	150	\$1,5085
_	20	\$0,3767	\$57		2016	150	\$1.5447
	0	\$0.3767	\$57		2017	150	\$1.5818
	0 1	20.3767	\$27		2018	150	\$1.6197
9000	9 9	50.3767	227		2019	150	\$1.6586
2020	.	20.3767	224		2020	150	\$1.6984
	2 :	30.5767	/00		2021	150	\$1,7392
	2 !	\$0.3767	227		2022	150	\$1.7809
	0 0	50767	227		2023	150	\$1.8237
2024 150	٥	20.3767	257		r.uc	031	64 0074

	Table 2		-		Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2.80% 2.80% 4.40% 5.40%																									
			2.3		lotal Kate	\$179	\$183	\$187	\$192	\$196	\$201	\$206	\$211	\$216	\$221	\$226	\$232	\$237	\$243	\$249	\$255	\$261	\$267	\$274	\$280
		t of Gas	٧		PGA Kate	51,1900	\$1.2186	\$1.2478	\$1.2778	\$1,3084	\$1,3398	\$1,3720	\$1,4049	\$1,4386	\$1,4731	\$1,5085	\$1.5447	\$1.5818	\$1.6197	\$1.6586	\$1.6984	\$1,7392	\$1.7809	\$1.8237	\$1.8674
pply Main welopment Mair rvice Line ster		Revenue - Cost of Gas	2	į	merms	051	120	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter	Fable 1a	α	-	, -	lear soco	Zons	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2% 0% 2%																									
5			r	R ap			. !		-	_	_			_	-	-				_	_			_	

Prorated Character Charact

Annual Chg Court Chg S120 DG S

	ĺ		Incret	nental Cus	Incremental Customer Costs	S		
-	2	3	4	5=3*4	9	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Customer	0.8 M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Adm. Cost Total Consumed	Costs	Cost	Total Consumed	Cost	Adm. & Main O&M
2005	\$0.00	S	38.37%	\$		38.37%	SS	\$0
2006	20.00	20	38.37%		,	38.37%	\$0	05
2007	\$0.00	\$0	38.37%		•	38.37%	S	80
2008	80.00	20	38.37%	S	•	38,37%	8	205
2009	\$0.00	20	38.37%	S		38.37%	30	95
2010	\$0.00	20	38.37%		,	38.37%	9	S
2011	\$0.00	0\$	38.37%	,	,	38.37%	200	. 5
2012	\$0,00	SO	38.37%		•	38,37%	80	os.
2013	\$0.00	\$0	38.37%	•	•	38.37%	30	S
014	80.00	20	38.37%	9	•	38.37%	20	S
015	\$0.00	20	38.37%	. 8	,	38,37%	\$0	0\$
2016	30.00	So	38.37%	•	,	38.37%	.00	· 5
2017	80.00	8	38.37%		,	38.37%	S	os S
2018	80.00	\$0	38.37%	,	,	38.37%	SO	9
2019	\$0.00	20	38.37%		s	38.37%	SO.	S
2020	\$0.00	20	38,37%	,	·	38.37%	8	: 8
2021	\$0.00	20	38.37%	S	,	38.37%	0\$	S
2022	\$0.00	20	38.37%		,	38,37%	20	ŝ
2023	\$0.00	80	38.37%		s	38.37%	S	20
2024	20.00	So	38.37%			38,37%	S	\$0

Supply D

Year 2005 2006 2007 2008 2009 2009 2009 2001 2011 2012 2012 2013 2014 2015 2015 2015 2015 2022 2022 2023 2023 2024

	lable 5			
		Gas Costs	osts	
	-	2	3	2-3
rstorner		Therms	Per Therm	Gas Supply
ain O&M	Year		Supply Cost	Cost
	2005	150	1.1900	\$179
_	2006	150	\$1.2186	\$183
_	2007	150	\$1.2478	\$187
_	2008	150	\$1.2778	\$192
_	2009	150	\$1,3084	\$196
_	2010	150	\$1,3398	\$201
_	2011	150	\$1.3720	\$206
_	2012	150	\$1.4049	\$211
_	2013	150	\$1,4386	\$216
_	2014	150	\$1,4731	\$221
_	2015	150	\$1,5085	\$226
_	2016	150	\$1,5447	\$232
	2017	150	\$1,5818	\$237
_	2018	150	\$1.6197	\$243
	2019	150	\$1.6586	\$249
_	2020	150	\$1,6984	\$255
_	2021	150	51,7392	\$261
	2022	150	\$1,7809	\$267
_	2023	150	\$1,8237	\$274
-	2024	150	\$1 1674	\$280

Table 5

ment Carrying Costs

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Cost Effective Results

Appliance Type

Tankless Water Heating

			Benefits	i					Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Costs	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
	, , , , , , , , , , , , , , , , , , ,	Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$536	\$450	\$36	\$1,022	\$950	(\$314)	\$250	\$36	\$196	\$62	\$45	\$1,225
2006	2	\$543	0	\$37	\$580	0	0	0	\$37	\$201	\$62	\$45	\$345
2007	3	\$550	0	\$38	\$588	0	0	0	\$38	\$206	\$62	\$45	\$350
2008	4	\$557	0	\$39	\$596	0	0	0	\$39	\$211	\$62	\$45	\$356
2009	5	\$564	0	\$40	\$604	0	0	0	\$40	\$216	\$62	\$45	\$362
2010	6	\$571	0	\$41	\$612	0	0	0	\$41	\$221	\$62	\$45	\$368
2011	7	\$578	0	\$42	\$620	0	0	0	\$42	\$226	\$62	\$45	\$375
2012	8	\$585	0	\$43	\$628	0	0	0	\$43	\$232	\$62	\$45	\$381
2013	9	\$592	0	\$44	\$636	0	0	0	\$44	\$237	\$62	\$45	\$388
2014	10	\$599	0	\$45	\$644	0	0	0	\$4 5	\$243	\$62	\$45	\$394
2015	11	\$607	0	\$46	\$652	0	0	0	\$46	\$249	\$62	\$45	\$401
2016	12	\$614	0	\$47	\$660	0	0	0	\$47	\$255	\$62	\$45	\$408
2017	13	\$621	0	\$48	\$669	0	0	0	\$48	\$261	\$62	\$45	\$416
2018	14	\$628	100	\$49	\$777	1,324	(438)	348	\$49	\$267	\$62	\$45	\$1,658
2019	15	\$635	0	\$50	\$685	0	0	0	\$50	\$274	\$62	\$45	\$431
2020	16	\$642	0	\$ 51	\$693	0	0	0	\$51	\$280	\$62	\$45	\$438
2021	17	\$649	0	\$53	\$702	0	0	0	\$53	\$287	\$62	\$45	\$446
2022	18	\$656	0	\$54	\$710	0	0	0	\$54	\$294	\$62	\$45	\$455
2023	19	\$663	0	\$55	\$718	0	0	0	\$55	\$301	\$62	\$45	\$463
2024	20	\$670	0	\$56	\$727	0	0	0	\$56	\$308	\$62	\$45	\$471

Present Value of Benefits \$6,621

Present Value of Costs \$5,008

Benefit/Cost	1.32
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Data

Appliance Type Tankless Water Heating

 O8M expense
 2%
 PGA Gas Ra
 2%
 Customer Ct
 0%

 Electric rates (fu
 2%
 PGA Base R
 0%

	Electric	KWH Cost - T	able 1	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost
Α	В	_с	D	B*C*(1+D)
2005	\$0.1020	4,773	10.00%	\$536
2006	\$0.1034	4,773	10.00%	\$543
2007	\$0.1047	4,773	10.00%	\$550
2008	\$0.1061	4,773	10.00%	\$557
2009	\$0.1074	4,773	10.00%	\$564
2010	\$0.1088	4,773	10.00%	\$571
2011	\$0.1101	4,773	10.00%	\$578
2012	\$0.1115	4,773	10.00%	\$585
2013	\$0.1128	4,773	10.00%	\$592
2014	\$0.1142	4,773	10.00%	\$599
2015	\$0.1155	4,773	10.00%	\$607
2016	\$0.1169	4,773	10.00%	\$614
2017	\$0.1182	4,773	10,00%	\$621
2018	\$0,1196	4,773	10.00%	\$628
2019	\$0.1209	4,773	10.00%	\$635
2020	\$0.1223	4,773	10.00%	\$642
2021	\$0.1236	4,773	10.00%	\$649
2022	\$0.1250	4,773	10.00%	\$656
2023	\$0.1263	4,773	10,00%	\$663
2024	\$0.1277	4,773	10.00%	\$670

	Gas Sup	ply Cost -	Table 2	
Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
Α	В	С	D	B*C*(1+D)
2005	\$1.1900	150	10.00%	\$196
2006	\$1.2186	150	10.00%	\$201
2007	\$1.2478	150	10.00%	\$206
2008	\$1.2778	150	10.00%	\$211
2009	\$1.3084	150	10.00%	\$216
2010	\$1.3398	150	10.00%	\$221
2011	\$1.3720	150	10.00%	\$226
2012	\$1.4049	150	10.00%	\$232
2013	\$1,4386	150	10.00%	\$237
2014	\$1.4731	150	10.00%	\$243
2015	\$1.5085	150	10.00%	\$249
2016	\$1,5447	150	10.00%	\$255
2017	\$1.5818	150	10.00%	\$261
2018	\$1.6197	150	10.00%	\$267
2019	\$1.6586	150	10.00%	\$274
2020	\$1.6984	150	10.00%	\$280
2021	\$1.7392	150	10.00%	\$287
2022	\$1.7809	150	10.00%	\$294
2023	\$1.8237	150	10.00%	\$301
2024	\$1,8674	150	10.00%	\$308

	Gas En	ergy Charge -	Table 3	
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost
Α	В	c_	D	B*C*(1+D)
2005	\$0.3767	150	10.00%	\$62
2006	\$0.3767	150	10.00%	\$62
2007	\$0.3767	150	10.00%	\$62
2008	\$0.3767	150	10.00%	\$62
2009	\$0.3767	150	10.00%	\$62
2010	\$0.3767	150	10.00%	\$62
2011	\$0.3767	150	10.00%	\$62
2012	\$0.3767	150	10.00%	\$62
2013	\$0.3767	150	10.00%	\$62
2014	\$0.3767	150	10.00%	\$62
2015	\$0.3767	150	10.00%	\$62
2016	\$0.3767	150	10.00%	\$62
2017	\$0.3767	150	10,00%	\$62
2018	\$0.3767	150	10.00%	\$62
2019	\$0,3767	150	10.00%	\$62
2020	\$0,3767	150	10.00%	\$62
2021	\$0.3767	150	10.00%	\$62
2022	\$0.3767	150	10.00%	\$62
2023	\$0.3767	150	10.00%	\$62
2024	\$0.3767	_ 150	10.00%	\$62

Year	Monthly Cust. Charge	Annual Cust, Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
Α	В	С	D	E	D/E	G	C*(D/E)*(1+Z)
2005	\$10	\$120.00	150	443	33,86%	10.00%	\$45
2006	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2007	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2008	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2009	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2010	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2011	\$10.00	\$120.00	150	443	33.36%	10.00%	\$45
2012	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2013	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2014	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2015	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2016	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2017	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2018	\$10.00	\$120.00	150	443	33,86%	10.00%	\$45
2019	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2020	\$10.00	\$120.00	150	443	33,86%	10.00%	\$45
2021	\$10.00	\$120.00	150	443	33,86%	10.00%	\$45
2022	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2023	\$10.00	\$120.00	150	443	33.86%	10.00%	\$45
2024	\$10,00	\$120.00	150	443	33.86%	10.00%	\$45

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Retention Program
RIM Test and Participants Test Results

For

Heating Systems

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Results

Appliance Type

Heating System

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy Charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$67	\$212	\$48	\$327	\$212	\$0	\$0	\$350	\$562
2003	\$67	\$217	\$48	\$332	\$217	\$0	\$0	\$0	\$217
2004	\$67	\$222	\$48	\$337	\$222	\$0	\$0	\$0	\$222
2005	\$67	\$227	\$48	\$343	\$227	\$0	\$0	\$0	\$227
2006	\$67	\$233	\$48	\$348	\$233	\$0	\$0	\$0	\$233
2007	\$67	\$238	\$48	\$354	\$238	\$0	\$0	\$0	\$238
2008	\$67	\$244	\$48	\$359	\$244	\$0	\$0	\$0	\$244
2009	\$67	\$250	\$48	\$365	\$250	\$0	\$0	\$0	\$250
2010	\$67	\$256	\$48	\$371	\$256	\$0	\$0	\$0	\$256
2011	\$ 67	\$262	\$48	\$377	\$262	\$0	\$0	\$0	\$262
2012	\$67	\$269	\$48	\$384	\$269	\$0	\$0	\$0	\$269
2013	\$67	\$275	\$48	\$390	\$275	\$0	\$0	\$0	\$275
2014	\$67	\$282	\$48	\$397	\$282	\$0	\$0	\$0	\$282
2015	\$67	\$288	\$48	\$404	\$288	\$0	\$0	\$0	\$288
2016	\$67	\$295	\$48	\$410	\$295	\$0	\$0	\$0	\$295
2017	\$67	\$302	\$48	\$418	\$302	\$0	\$0	\$0	\$302
2018	\$67	\$310	\$48	\$425	\$310	\$0	\$0	\$0	\$310
2019	\$67	\$317	\$48	\$432	\$317	\$0	\$0	\$0	\$317
2020	\$67	\$325	\$48	\$440	\$325	\$0	\$0	\$0	\$325
2021	\$67	\$332	\$48	\$448	\$332	\$0	\$0	\$0	\$332

Present Value		Present Value	
of Benefits	\$3,610	of Costs	\$2,802

Benefit/Cost	
Benefit/Cost Ratio	1.29

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Calculated data

Appliance Type Heating System

> PGA Rate Escalator 2.4% Base Rate Escalator Electric Rate escalator

0% 2.4%

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter

2.80% 2.80% 4.40% 5.40% Customer Charge - Gas Customer Charge - Electric Inflation factor

Table 1

Revenue - Energy charge								
1	2	3	2.3					
Year	Therms	Base Rate	Total Rate					
2005	178	\$0.3767	\$67					
2006	178	\$0.3767	\$67					
2007	178	\$0.3767	\$67					
2008	178	\$0,3767	\$67					
2009	178	\$0.3767	\$67					
2010	178	\$0.3767	\$67					
2011	178	\$0,3767	\$67					
2012	178	\$0.3767	\$67					
2013	178	\$0.3767	\$67					
2014	178	\$0,3767	\$67					
2015	178	\$0.3767	\$67					
2016	178	\$0,3767	\$67					
2017	178	\$0,3767	\$67					
2018	178	50.3767	\$67					
2019	178	\$0.3767	\$67					
2020	178	\$0,3767	\$67					
2021	178	\$0.3767	\$67					
2022	178	\$0.3767	\$67					
2023	178	\$0,3767	\$67					
2024	178	\$0,3767	\$67					

Revenue - Cost of Gas									
1	2	4	2-3						
Year	Therms	PGA Rate	Total Rate						
2005	178	\$1.1900	\$212						
2006	178	\$1.2186	\$217						
2007	178	\$1.2478	\$222						
2008	178	\$1.2778	\$227						
2009	178	\$1.3084	\$233						
2010	178	\$1.3398	\$238						
2011	178	\$1,3720	\$244						
2012	178	\$1,4049	\$250						
2013	178	\$1.4386	\$256						
2014	178	\$1.4731	\$262						
2015	178	\$1.5085	\$269						
2016	178	\$1,5447	\$275						
2017	178	\$1.5818	\$282						
2018	178	\$1.6197	\$288						
2019	178	\$1,6586	\$295						
2020	178	\$1.6984	\$302						
2021	178	\$1,7392	\$310						
2022	178	\$1.7809	\$317						
2023	178	\$1.8237	\$325						
2024	178	\$1,8674	\$332						

1	2	venue - Custor	mer charge	4.3
			Ratio of	43
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust. Chg
2005	\$10.00	\$120.00	40.18%	\$48
2006	\$10.00	\$120.00	40.18%	\$48
2007	\$10.00	\$120.00	40.18%	\$48
2008	\$10,00	\$120.00	40.18%	\$48
2009	\$10.00	\$120.00	40.18%	\$48
2010	\$10.00	\$120,00	40.18%	\$48
2011	\$10,00	\$120.00	40.18%	\$48
2012	\$10.00	\$120.00	40.18%	\$48
2013	\$10,00	\$120.00	40.18%	\$48
2014	\$10,00	\$120.00	40.18%	\$48
2015	\$10.00	\$120.00	40.18%	\$48
2016	\$10.00	\$120.00	40.18%	\$48
2017	\$10.00	\$120,00	40.18%	\$48
2018	\$10.00	\$120.00	40.18%	\$48
2019	\$10.00	\$120.00	40.18%	\$48
2020	\$10.00	\$120.00	40.18%	\$48
2021	\$10.00	\$120.00	40.18%	\$48
2022	\$10.00	\$120.00	40.18%	\$48
2023	\$10.00	\$120.00	40.18%	\$48
2024	510.00	\$120.00	40.18%	\$48

			In	vestment C	arrying Cos	ts		
11	2	3	4	5	- 6	7	8	6*7*8
Year	Supply Main	Developmen Main	Service Line	Meter	Customer Cost	Avg Cost of Debt	Ratio of Therms Consumed To Total	Carrying Che
2005	\$0	\$0	\$0	\$0	\$0	8.83%	40,18%	\$0
2006	\$0	\$0	\$0	\$0	\$0	8.83%	40.18%	\$0
2007	50	\$0	\$0	30	\$0	8.83%	40.18%	\$0
2008	\$0	50	\$0	SO SO	50	8.83%	40.18%	\$0
2009	30	30	SO	30	so	8.83%	40.18%	\$0
2010	SO	\$0	20	20	\$0	8.83%	40.18%	\$0
2011	\$0	\$0	\$0	so	SO.	8.83%	40.18%	\$0
2012	50	SO	\$D	\$0	\$0	8.83%	40.18%	\$0
2013	30	50	\$0	\$0	30	8.83%	40.18%	30
2014	\$0	\$0	\$0	SO.	\$0	8.83%	40.18%	\$0
2015	\$0	\$0	SO	SQ	sa	8,83%	40.18%	\$0
2016	30	\$0	50	30	80	8.83%	40.18%	\$0
2017	30	S0	SO	30	\$0	8,83%	40.18%	\$0
2018	\$0	\$0	\$0	\$0	50	8.83%	40.18%	\$0
2019	\$0	\$0	\$0	\$0	50	8.83%	40.18%	\$0
2020	\$0	\$0	\$0	50	\$0	8.83%	40.18%	\$0
2021	SO	\$0	SO	S0	SO	8.83%	40.18%	\$0
2022	\$0	SO	\$0	SO	\$0	8.83%	40.18%	\$0
2023	\$0	\$0	\$0	\$D	\$0	8.83%	40.18%	\$0
2024	\$0	SO	\$0	\$0	SO.	8.83%	40.18%	50

			Inci	remer	ntal Cu	storr	ier Ca	sts		
1	2	3	4	5	=3°4		6	7	8≃6 * 7	5+8
	Adm.	Annual	Ratio Therms To	Cus	stomer	0	M.B	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed	C	osts	C	Cost	Total Consumed	Cost	Adm. & Main . & N
2005	\$0.00	SO	40.18%	\$	-	5	-	40,18%	\$0	\$0
2006	\$0.00	\$0	40.18%	5	-	\$	-	40.18%	\$0	\$0
2007	\$0.00	50	40.18%	5	-	\$	-	40.18%	\$0	\$0
2008	\$0.00	\$0	40.18%	\$	-	\$	-	40.18%	50	\$0
2009	\$0.00	50	40.18%	5	-	\$	-	40.18%	\$0	\$0
2010	\$0.00	\$0	40.18%	5	-	\$	-	40.18%	\$0	\$0
2011	\$0.00	\$0	40.18%	S	-	S	-	40.18%	\$0	\$0
2012	\$0.00	SO	40.18%	\$	-	\$	-	40.18%	\$0	\$0
2013	\$0.00	\$0	40.18%	s		\$	-	40.18%	SO	\$0
2014	\$0.00	\$0	40.18%	\$		\$	-	40.18%	SO	SO
2015	\$0.00	\$0	40.18%	\$	-	\$	~	40.18%	\$0	\$0
2016	\$0.00	\$0	40.18%	S	-	5	-	40.18%	\$0	\$0
2017	\$0.00	30	40.18%	\$	-	\$	-	40.18%	\$0	\$0
2018	\$0.00	\$0	40.18%	S	-	\$	-	40.18%	\$0	\$0
2019	\$0.00	\$0	40.18%	S	-	5	-	40,18%	\$0	\$0
2020	\$0.00	80	40.18%	S	-	\$	-	40.18%	20	\$0
2021	\$0,00	\$0	40.18%	\$	-	\$	-	40.18%	\$0	\$0
2022	\$0.00	SO	40.18%	S	-	5	-	40.18%	\$0	\$0
2023	\$0.00	50	40.18%	š		ś	-	40.18%	\$0	\$0
2024	\$0.00	S0	40.18%	s	_	é		40.18%	SO	20

	Gas	Costs	
1	2	3	2*3
	Therms	Per Therm	Gas Supply
Year		Supply Cost	Cost
2005	178	1.1900	\$212
2006	. 178	\$1.2186	\$217
2007	178	\$1.2478	\$222
2008	178	\$1.2778	\$227
2009	178	\$1.3084	\$233
2010	178	\$1.3398	\$238
2011	178	\$1.3720	\$244
2012	178	\$1,4049	\$250
2013	178	\$1.4386	\$256
2014	178	\$1,4731	\$262
2015	178	\$1.5085	\$269
2016	178	\$1,5447	\$275
2017	178	\$1,5818	\$282
2018	178	\$1.6197	\$288
2019	178	\$1.6586	\$295
2020	178	\$1.6984	\$302
2021	178	\$1,7392	3310
2022	178	\$1,7809	\$317
2023	178	\$1.8237	\$325
2024	178	\$1.8674	\$332

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Cost Effective Results

Appliance Type

Heating System

			Benefits	•					Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$353	\$350	\$192	\$895	\$2,052	(\$3,850)	\$1,450	\$192	\$233	\$74	\$53	\$204
2006	2	\$358	0	\$197	\$555	0	0	0	\$197	\$239	\$74	\$ 53	\$562
2007	3	\$363	0	\$201	\$564	0	0	0	\$201	\$244	\$74	\$53	\$572
2008	4	\$368	0	\$206	\$574	0	0	0	\$206	\$250	\$74	\$53	\$583
2009	5	\$372	0	\$211	\$583	0	0	0	\$211	\$256	\$74	\$53	\$594
2010	6	\$377	0	\$216	\$593	0	0	0	\$216	\$262	\$74	\$53	\$605
2011	7	\$382	0	\$221	\$603	0	0	0	\$221	\$269	\$74	\$53	\$617
2012	8	\$386	0	\$227	\$613	0	0	0	\$227	\$275	\$74	\$53	\$629
2013	9	\$391	0	\$232	\$623	0	0	0	\$232	\$282	\$74	\$53	\$641
2014	10	\$396	0	\$238	\$633	0	0	0	\$238	\$288	\$74	\$53	\$653
2015	11	\$400	0	\$243	\$644	0	0	0	\$243	\$295	\$74	\$53	\$666
2016	12	\$405	0	\$249	\$654	0	0	0	\$249	\$302	\$74	\$53	\$678
2017	13	\$410	0	\$255	\$665	0	0	0	\$255	\$310	\$74	\$53	\$692
2018	14	\$414	100	\$261	\$776	2,860	(5,366)	2,021	\$261	\$317	\$74	\$53	\$220
2019	15	\$419	0	\$268	\$687	0	0	0	\$268	\$325	\$74	\$53	\$719
2020	16	\$424	0	\$274	\$698	0	0	0	\$274	\$333	\$74	\$53	\$733
2021	17	\$428	0	\$281	\$709	0	0	0	\$281	\$341	\$74	\$53	\$748
2022	18	\$433	0	\$287	\$720	0	0	0	\$287	\$349	\$74	\$53	\$763
2023	19	\$438	0	\$294	\$732	0	0	0	\$294	\$357	\$74	\$53	\$778
2024	20	\$442	0	\$301	\$744	0	0	0	\$301	\$366	\$74	\$53	\$794

Present Value \$6,399 of Benefits

Present Value \$5,730 of Costs

Benefit/Cost 1.12
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Data

Appliance Type Heating System

Escalators	0.0%	Electric rate:	2.4%	Customer Ch	0%
O&M expense	2.4%	PGA Base R	0.0%		

		Electric K	WH Cost - Tal	ole 1		ļ	L	Gas Su	pply Cost	- Table 2	
	Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost		Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
	A	В	<u>c</u>	D	B*C*(1+D)		Α	В	C	D	B*C*(1+D)
	2005	\$0.1020	3,150	10.00%	\$353		2005	\$1,1900	178	10.00%	\$233
	2006	\$0.1034	3,150	10.00%	\$358		2006	\$1.2186	178	10.00%	\$239
	2007	\$0,1047	3,150	10.00%	\$363		2007	\$1.2478	178	10.00%	\$244
	2008	\$0.1061	3,150	10.00%	\$368		2008	\$1.2778	178	10.00%	\$250
	2009	\$0.1074	3,150	10,00%	\$372		2009	\$1.3084	178	10.00%	\$256
	2010	\$0.1088	3,150	10.00%	\$377		2010	\$1.3398	178	10.00%	\$262
	2011	\$0.1101	3,150	10.00%	\$382		2011	\$1.3720	178	10.00%	\$269
	2012	\$0,1115	3,150	10,00%	\$386		2012	\$1,4049	178	10,00%	\$275
	2013	\$0,1128	3,150	10.00%	\$391		2013	\$1.4386	178	10.00%	\$282
	2014	\$0.1142	3,150	10.00%	\$396		2014	\$1.4731	178	10.00%	\$288
	2015	\$0.1155	3,150	10.00%	\$400		2015	\$1.5085	178	10.00%	\$295
	2016	\$0.1169	3,150	10.00%	\$405		2016	\$1.5447	178	10.00%	\$302
	2017	\$0.1182	3,150	10.00%	\$410		2017	\$1.5818	178	10.00%	\$310
	2018	\$0.1196	3,150	10.00%	\$414		2018	\$1.6197	178	10.00%	\$317
	2019	\$0.1209	3,150	10.00%	\$419		2019	\$1.6586	178	10.00%	\$325
	2020	\$0,1223	3,150	10.00%	\$424		2020	\$1.6984	178	10.00%	\$333
	2021	\$0.1236	3,150	10.00%	\$428		2021	\$1.7392	178	10.00%	\$341
	2022	\$0.1250	3,150	10.00%	\$433		2022	\$1,7809	178	10.00%	\$349
	2023	\$0.1263	3,150	10.00%	\$438		2023	\$1.8237	178	10.00%	\$357
L	2024	\$0 1277	3,150	10.00%	\$442		2024	\$1.8674	178	10.00%	\$366

	Gas Ene	ergy Charge - 1	able 3	
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost
Α	В	. с	D	B*C*(1+D)
2005	\$0.3767	178	10.00%	\$74
2006	\$0.3767	178	10.00%	\$74
2007	\$0.3767	178	10.00%	\$74
2008	\$0.3767	178	10,00%	\$74
2009	\$0.3767	178	10.00%	\$74
2010	\$0.3767	178	10.00%	\$74
2011	\$0,3767	178	10.00%	\$74
2012	\$0.3767	178	10.00%	\$74
2013	\$0.3767	178	10,00%	\$74
2014	\$0.3767	178	10.00%	\$74
2015	\$0.3767	178	10.00%	\$74
2016	\$0.3767	178	10.00%	\$74
2017	\$0,3767	178	10.00%	\$74
2018	\$0.3767	178	10.00%	\$74
2019	\$0.3767	178	10,00%	\$74
2020	\$0.3767	178	10.00%	\$74
2021	\$0.3767	178	10.00%	\$74
2022	\$0.3767	178	10.00%	\$74
2023	\$0.3767	178	10.00%	\$74
2024	\$0,3767	178	10.00%	\$74

3_				Gas	Customer C		ole 3		
x& ees	Gas Cost	Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
D	B*C*(1+D)	Α	В	c	D	Ę	D/E	G	C*(D/E)*(1+Z)
00%	\$74	2005	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2006	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2007	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2008	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2009 -	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2010	\$10.00	\$120.00	178	443	40,18%	10.00%	\$53
00%	\$74	2011	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2012	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2013	\$10.00	\$120.00	178	443	40.18%	10,00%	\$53
00%	\$74	2014	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2015	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2016	\$10.00	\$120.00	178	443	40.18%	10.00"	\$53
00%	\$74	2017	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2018	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2019	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2020	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2021	\$10.00	\$120.00	178	443	40.18%	10.00%	\$ 53
00%	\$74	2022	\$10.00	\$120.00	178	443	40.18%	10.00%	\$53
00%	\$74	2023	\$10.00	\$120.00	178	443	40.18%	10,00%	\$53
00%	\$74	2024	\$10.00	\$120.00	178	443	40,18%	10.00%	\$53

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Retention Program RIM Test and Participants Test Results

For

Clothes Drying Appliances

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Results

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_	_	- ·						

Cllothes Drying

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9	6 thru 9
2002	\$19	\$60	\$14	\$92	\$60	\$0	\$0	\$100	\$160
2003	\$19	\$61	\$14	\$93	\$61	\$0	\$0	\$0	\$61
2004	\$19	\$62	\$14	\$95	\$62	\$0	\$0	\$0	\$62
2005	\$19	\$64	\$14	\$96	\$64	\$0	\$0	\$0	\$64
2006	\$19	\$65	\$14	\$98	\$65	\$0	\$0	\$0	\$65
2007	\$19	\$67	\$14	\$99	\$67	\$0	\$0	\$0	\$67
2008	\$19	\$69	\$14	\$101	\$69	\$0	\$0	\$0	\$69
2009	\$19	\$70	\$14	\$103	\$70	\$0	\$0	\$0	\$70
2010	\$19	\$72	\$14	\$104	\$72	\$0	\$0	\$0	\$72
2011	\$19	\$74	\$14	\$106	\$74	\$0	\$0	\$0	\$74
2012	\$19	\$75	\$14	\$108	\$75	\$0	\$0	\$0	\$75
2013	\$19	\$77	\$14	\$110	\$77	\$0	\$0	\$0	\$77
2014	\$19	\$79	\$14	\$111	\$79	\$0	\$0	\$0	\$79
2015	\$19	\$81	\$14	\$113	\$81	\$0	\$0	\$0	\$81
2016	\$19	\$83	\$14	\$115	\$83	\$0	\$0	\$0	\$83
2017	\$19	\$85	\$14	\$117	\$85	\$0	\$0	\$0	\$85
2018	\$19	\$87	\$14	\$119	\$87	\$0	\$0	\$0	\$87
2019	\$19	\$89	\$14	\$121	\$89	\$0	\$0	\$0	\$89
2020	\$19	\$91	\$14	\$124	\$91	\$0	\$0	\$0	\$91
2021	\$19	\$93	\$14	\$126	\$93	\$0	\$0	\$0	\$93

 Present Value of Benefits
 \$1,014
 Present Value of Costs
 \$789

 Benefit/Cost Ratio
 1.29

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Calculated Data

Appliance Type Clothes Drying

> PGA Rate Escalator Base Rate Escalator Electric Rate escalator 2.4%

0% 2.4%

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter 2.80% 2.80% 4.40% 5.40%

Customer Charge - Gas Customer Charge - Electric Inflation factor

Table 1			
R	evenue - E	nergy Char	qe
1	2	3	2*3
Year	Therms	Base Rate	Total Rate
2005	50	80.3767	\$19
2006	50	\$0.3767	\$19
2007	50	\$0.3767	\$19
2008	50	\$0.3767	\$19
2009	50	\$0.3767	\$19
2010	50	\$0.3767	\$19
2011	50	\$0.3767	\$19
2012	50	\$0.3767	\$19
2013	50	\$0.3767	\$19
2014	50	\$0.3767	\$19
2015	50	\$0.3767	\$19
2016	50	\$0,3767	\$19
2017	50	\$0.3767	519
2018	50	50.3767	\$19
2019	50	\$0,3767	\$19
2020	50	\$0,3767	519
2021	50	\$0.3767	\$19
2022	50	\$0.3767	519
2023	50	\$0.3767	\$19
2024	50	\$0.3767	\$19

	Revenue - Co		
1	2	- 4	2*3
Year	Therms	PGA Rate	Total Rate
2005	50	\$1.1900	\$60
2006	50	\$1.2186	\$61
2007	50	\$1.2478	\$62
2008	50	\$1.2778	\$64
2009	50	\$1.3084	\$65
2010	50	\$1.3398	\$67
2011	50	\$1.3720	\$69
2012	50	\$1,4049	\$70
2013	50	\$1.4386	\$72
2014	50	\$1.4731	\$74
2015	50	\$1.5085	\$75
2016	50	\$1.5447	\$77
2017	50	\$1,5818	\$79
2018	50	\$1.6197	\$81
2019	50	\$1.6586	\$83
2020	50	\$1.6984	\$85
2021	50	\$1.7392	\$87
2022	50	\$1.7809	\$89
2023	50	\$1.8237	\$91
2024	50	\$1.8674	\$93

	Rev	enue - Custon	ner Charge	
1	2	3	4	4*3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust. Chg
2005	\$10.00	\$120.00	11.29%	\$14
2006	\$10.00	\$120.00	11.29%	\$14
2007	\$10,00	\$120.00	11.29%	\$14
2008	\$10,00	\$120.00	11.29%	\$14
2009	\$10.00	\$120.00	11.29%	\$14
2010	\$10.00	\$120.00	11.29%	\$14
2011	\$10.00	\$120.00	11.29%	\$14
2012	\$10.00	\$120.00	11.29%	\$14
2013	\$10.00	\$120.00	11,29%	\$14
2014	\$10.00	\$120.00	11,29%	\$14
2015	\$10,00	\$120.00	11.29%	\$14
2016	\$10.00	\$120.00	11.29%	\$14
2017	\$10.00	\$120,00	11,29%	\$14
2018	\$10.00	\$120,00	11,29%	\$14
2019	\$10.00	\$120.00	11 29%	\$14
2020	\$10.00	\$120.00	11,29%	\$14
2021	\$10.00	\$120.00	11.29%	\$14
2022	\$10.00	\$120.00	11.29%	\$14
2023	\$10.00	\$120.00	11.29%	\$14
2024	\$10.00	\$120.00	11,29%	\$14

			Inve	estment Ca	rrying Costs	3		
1	2	3	4	5	6	7	8	6-7-8
	Supply	Development	Service		Customer	Avg Cost	Ratio of Therms	Carrying Cho
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svo
2005	S0	\$0	\$0	\$0	\$0	8.83%	11,29%	\$0
2006	SO	\$0	\$0	\$0	\$0	8.83%	11.29%	\$0
2007	80	02	\$0	SO	\$0	8.83%	11.29%	\$0
2008	\$0	\$0	\$0	\$0	\$0	8.83%	11.29%	\$0
2009	\$0	\$0	\$0	SO	\$0	8.83%	11,29%	\$0
2010	SO	80	50	\$0	\$0	8.83%	11.29%	\$0
2011	SO	SO	50	\$0	50	8.83%	11.29%	\$0
2012	\$0	\$0	\$0	30	\$0	8.83%	11.29%	\$0
2013	30	\$0	\$0	50	\$0	8.83%	11.29%	\$0
2014	\$0	\$0	50	\$0	\$0	8.83%	11.29%	\$0
2015	\$0	50	\$0	\$0	S0	8.83%	11.29%	\$0
2016	\$0	\$0	\$0	\$0	\$0	8,83%	11.29%	\$0
2017	\$0	\$0	\$0	\$0	\$0	8.83%	11.29%	\$0
2018	30	\$0	\$0	\$0	30	8.83%	11.29%	\$0
2019	30	\$0	S0	\$0	\$0	8.83%	11.29%	\$0
2020	\$0	30	\$0	\$0	\$0	8.83%	11.29%	\$0
2021	\$0	\$0	\$0	\$0	\$0	8.83%	11.29%	\$0
2022	\$0	\$0	ŞD	50	\$0	8,83%	11.29%	\$0
2023	\$0	\$0	\$0	\$0	so	8.83%	11.29%	\$0
2024	SD.	so	SO	so	so.	8.83%	11.29%	50

			Incre	ment	al Cust	tome	r Cos	ts		
_1	2	3	4	5	=3*4		6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Cus	tomer	0	8 M	Ratio Therms To	Main	New Customer
Year	Cost	Adm. Cost	Total Consumed	C	osts	(Cost	Total Consumed	Cost	Adm. & Main O&M
2005	\$0.00	\$0	11.29%	\$	-	\$	~	11,29%	\$0	\$0
2006	90.00	\$0	11.29%	5		\$	-	11.29%	\$0	\$0
2007	\$0.00	\$0	11.29%	S	-	\$	-	11.29%	\$0	\$0
2008	\$0.00	30	11.29%	\$	-	s		11.29%	\$0	\$0
2009	\$0.00	\$0	11.29%	\$	-	s	-	11.29%	\$0	\$0
2010	\$0.00	\$0	11.29%	\$	-	\$	-	11.29%	\$0	\$0
2011	50.00	\$0	11.29%	S	-	\$	-	11.29%	SO	\$0
2012	\$0.00	\$0	11.29%	\$	-	\$		11.29%	SO.	\$0
2013	\$0.00	\$0	11.29%	\$	-	\$		11.29%	\$0	\$0
2014	\$0.00	\$0	.11.29%	s	-	\$	-	11.29%	\$0	\$0
2015	\$0.00	\$O	11.29%	S	-	S	-	11.29%	\$0	50
2016	50.00	\$0	11.29%	S		\$	-	11.29%	\$0	\$0
2017	\$0.00	\$0	11.29%	\$	-	5	-	11.29%	. 80	\$0
2018	\$0.00	\$0	11.29%	\$	-	\$	-	11.29%	SO	\$0
2019	\$0.00	\$0	11.29%	s	- '	5	-	11.29%	\$0	\$0
2020	\$0.00	\$0	11.29%	\$		\$		11.29%	50	\$0
2021	50.00	\$0	11.29%	s	-	\$	-	11.29%	50	\$0
2022	\$0.00	30	11.29%	s	-	\$	-	11.29%	50	S0
2023	\$0.00	\$0	11.29%	\$	-	\$	-	11.29%	\$0	\$0
2024	\$0.00	SD	11.29%	S		s	_	11.29%	S0	\$0

	Gas	Costs	
1	2	3	2*3
	Therms	Per Therm	Gas Supply
Year		Supply Cost	Cost
2005	50	1.1900	\$60
2006	50	\$1.2186	\$61
2007	50	\$1.2478	\$62
2008	50	\$1.2778	\$64
2009	50	\$1,3084	\$65
2010	50	\$1.3398	\$67
2011	50	\$1.3720	\$69
2012	50	\$1,4049	\$70
2013	50	\$1,4386	\$72
2014	50	\$1,4731	\$74
2015	50	\$1.5085	\$75
2016	50	\$1.5447	\$77
2017	50	\$1.5818	\$79
2018	50	\$1.6197	\$81
2019	50	\$1.6586	\$83
2020	50	\$1.6984	\$85
2021	50	\$1.7392	\$87
2022	50	\$1.7809	\$89
2023	50	\$1.8237	\$91
2024	50	\$1.8674	\$93

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Cost Effective Results

Appliance Type

Clothes Drying

			Benefits	;					Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
1		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$164	\$100	\$36	\$300	\$379	(\$454)	\$150	\$36	\$65	\$21	\$15	\$212
2006	2	\$167	0	\$37	\$203	0	0	0	\$37	\$67	\$21	\$15	\$140
2007	3	\$169	0	\$38	\$207	0	0	0	\$38	\$69	\$21	\$15	\$142
2008	4	\$171	0	\$39	\$210	0	0	0	\$39	\$70	\$21	\$15	\$145
2009	5	\$173	0	\$40	\$213	0	0	0	\$40	\$72	\$21	\$15	\$147
2010	6	\$175	0	\$41	\$216	0	0	0	\$41	\$74	\$21	\$15	\$150
2011	7	\$177	0	\$42	\$219	0	0	0	\$42	\$ 75	\$21	\$15	\$153
2012	8	\$180	0	\$43	\$222	0	0	0	\$43	\$77	\$21	\$15	\$155
2013	9	\$182	0	\$44	\$225	0	0	. 0	\$44	\$79	\$21	\$15	\$158
2014	10	\$184	0	\$45	\$229	0	0	0	\$45	\$81	\$21	\$15	\$161
2015	11	\$186	0	\$46	\$232	0	0	0	\$46	\$83	\$21	\$15	\$164
2016	12	\$188	0	\$47	\$235	0	0	0	\$47	\$85	\$21	\$15	\$167
2017	13	\$191	0	\$48	\$238	0	0	0	\$48	\$87	\$21	\$15	\$170
2018	14	\$193	100	\$49	\$342	528	(633)	209	\$49	\$89	\$21	\$15	\$278
2019	15	\$195	0	\$50	\$245	0	0	0	\$50	\$91	\$21	\$15	\$177
2020	16	\$197	0	\$51	\$248	0	0	0	\$ 51	\$93	\$21	\$15	\$180
2021	17	\$199	0	\$53	\$252	0	0	0	\$53	\$96	\$21	\$15	\$184
2022	18	\$201	0	\$54	\$255	0	0	0	\$54	\$98	\$21	\$15	\$187
2023	19	\$204	0	\$55	\$259	0	0	0	\$55	\$100	\$21	\$15	\$191
2024	20	\$206	0	\$56	\$262	0	0	0	\$56	\$103	\$21	\$15	\$195

Present Value 52,312

Present Value of Costs \$1,642

Benefit/Cost	1.41
Ratio	

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Data

 Clothes Drying	
Appliance Type	

%7

PGA Gas Rates

			dsT - 9gver letoT	Customer Cl	seg		
Pro-Rated Cust Charge	Так & Fees	- Ratio - ot enningA bate to IstoT	leunnA zamedT	Appliance IsunnA SmedT	Annual Cust. Charge	Monthly Cust. Charge	ТеаТ
C*(D/E)*(1+Z	9	∃/d	3	O.	Э	8	A
\$1\$	%00.01	%6Z.11	443	90	\$150.00	01\$	2005
sı\$	%00.01	%6Z"11	443	90	\$150.00	00.0t\$	5006
31\$	%00°01	%6Z'11	443	09	\$120.00	00.01\$	2002
\$15	%00°01	%6Z.11	443	09	\$150.00	\$10.00	S008
\$1\$	%00°01	%6Z"11	5443	20	\$120.00	00'01\$	2009
\$1\$	%00'01	%6Z.11	443	90	\$120.00	00.01\$	2010
\$1\$	%00.01	%6Z.13	443	90	\$\$50.00	00.01\$	2011
\$1\$	%00 [.] 01	%63.11	443	09	\$120.00	00.01\$	2012
91\$	%00 [°] 01	%6Z.11	Ept	09	\$120.00	00.018	2013
sı\$	%00°01	%6Z.11	5443	09	\$150.00	00.01\$	2014
sı\$	%00.01	11.29%	443	09	\$120.00	00.01\$	2015
51 \$	40.00%	%6Z.11	5443	09	\$120.00	00.01\$	2016
91\$	%00.01	%6Z.11	6443	OS	\$120.00	00.01\$	2017
sis	%00.01	41.29%	6443	09	\$120.00	00.018	2018
ei\$	%00°01	%6Z:11	EÞÞ	09	\$150.00	00.01\$	2019
sı\$	%00°01	%6Z111	6443	09	\$150,00	\$10.00	2020
91\$	%00.01	%6Z.11	443	90	\$150.00	\$10.00	2021
91\$	%00 [°] 01	%6Z 11	443	os	\$120.00	00.01\$	2022
\$1\$	%00.01	%6Z.11	5443	09	\$150,00	00.01\$	2023

SI\$ | %00.01 | %65.11 | Ebb | 02 | 00.051\$ | 00.018

2024

	able 3	rgy Charge - T	Gas Ene	
Gas Cost	8 хьТ геез	leunnA bezu zmiedT	Rate Per Therm	Year
B.C.(1+D	a	3	8	∀
\$51	%00:01	09	797E.0\$	2002
\$51	%00:01	20	\$0.3767	2006
12\$	%00.01	09	Z9Z£:0\$	2002
\$51	%00:01	20	7976.0\$	8002
12\$	%00.01	20	£975.0 \$	5003
17\$	%00.01	20	\$0°3567	2010
\$21	%00.01	os	, Z9ZE'0\$	1102
17\$	%00.01	09	29ZE 0\$	2102
LZ\$	%00.0t	90	\$0.3767	2013
12\$	%00.01	90	\$0.3767	2014
\$54	%00.01	90	Z9ZE:0\$	5012
17\$	%00.01	20	Z9ZE'0\$	2016
ız\$	%00:01	09	1975.0\$	2017
12\$	%00.01	09	\$0.3767	8102
17\$	%00.01	20	Z9ZE:0\$	5018
17\$	%00.01	OS	Z9Z6.0\$	2020
12\$	%00°01	09	2928 0\$	1202
ızs	%00.01	99	797£.02	2022
12\$	400.01	09	797£.0\$	2023

	Table 2	pply Cost	juč ssē	
teoD esa	Tax & Fees	Annual Therms used	Therm Cost	Year
B.C.(1+E	ď	3	8	Α.
\$9\$	%00°01	09	\$1,1900	5002
49\$	%00°01	09	\$1.2186	2008
69\$	%00'01	90	87.2478	2002
02\$	%00°01	09	8172.18	2008
ZZ\$	%00.01	09	\$1,3084	5002
7 2\$	%00°01	05	9688.1\$	2010
97\$	400.00	09	\$1,3720	2011
2.2\$	%00.01	09	6707 I\$	2012
62\$	%00°01	09	9864,1\$	2013
18\$	%00'01	09	\$1.4731	2014
283	%00.01	99	2905.1\$	2015
58\$	%00°01	09	7442.1 \$	2016
Z8\$	%00.01	09	81.8818	2102
68\$	%00.01	90	2619.18	2018
16\$	%00'0t	05	9889.1 \$	5010
96\$ 26\$	%00.01 %00.01	09	7667.1\$	2020
86\$	%00.01	20	6087.12	2022
001\$	10.00%	90	7628.1\$	2023

Customer CF

%Z

% 0	A Base Rate	Od .	%Z	ul) ester aitase
	1 əldsT	tric KWH Cost -	Deta	
Electric Cost	Tax & Fees	Amnaal KWH basu	Unit KWH Cost	Year
B-C-(1+D)	q	5	8	A
\$184	%00:01	591,1	\$01050	2002
191\$	%00°01	1,465	\$6.1034	2008
691\$	10.00%	394,1	ZÞ01 '0\$	2002
1718	%00 ⁻ 01	1'462	1901'0\$	2008
\$113	%00 ⁻ 01	59b'l	\$401.0 \$	5002
8118	%00°01	394,1	8901'0\$	2010
111 \$	10.00%	1,465	1011.0\$	5011
2180	%00'01	99 7 1	\$111.0\$	2012
781\$	%00'01	59b'l	8211'0\$	2013
\$184	%00.01	294,1	2011.08	5014
2186	%00.01	99t/L	\$0.1155	9102
8812	%00.01	59b,t	6911.03	2012
161\$	%00.01	594,1	2811.08	2102
261\$ 261\$	%00.01 %00.01	295,1 235,1	9611.0\$	2019
761\$	%00'01	1'465	\$0.1203	2020
\$199	%00°01	395'1	9621.0\$	2021
102\$	%00.01	595,1	0921:0\$	2022
\$204	%00°01	991/1	\$0.1263	2023
\$206	%00°01	1,465	1721.08	2024

Exhibit A

Peoples Gas System Energy Conservation Program June 21, 2006

Residential Appliance Retention Program
RIM Test and Participants Test Results

For

Cooking Appliances

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Results

Appliance Type

Cooking

	Incremental	Incremental	Incremental	Total	Gas	Investment	Incremental		
	Revenue	Revenue	Customer	Revenue	Supply	Carrying	Customer	Program	Total
	Energy charge	Cost of Gas	Charge		Cost	Costs	Costs	Cost	Costs
	Table 1	Table 1A	Table 2		Table 5	Table 3	Table 4		
1	2	3	4	2 thru 4	6	7	8	9 .	6 thru 9
2002	\$17	\$54	\$12	\$83	\$54	\$0	\$0	\$100	\$154
2003	\$17	\$55	\$12	\$84	\$55	\$0	\$0	\$0	\$55
2004	\$17	\$56	\$12	\$85	\$56	\$0	\$0	\$0	\$56
2005	\$17	\$57	\$12	\$87	\$57	\$0	\$0	\$0	\$57
2006	\$17	\$59	\$12	\$88	\$59	\$0	\$0	\$0	\$59
2007	\$17	\$60	\$12	\$89	\$60	\$0	\$0	\$0	\$60
2008	\$17	\$62	\$12	\$91	\$62	\$0	\$0	\$0	\$62
2009	\$17	\$63	\$12	\$92	\$63	\$0	\$0	\$0	\$63
2010	\$17	\$65	\$12	\$94	\$65	\$0	\$0	\$0	\$65
2011	\$17	\$66	\$12	\$95	\$66	\$0	\$0	\$0	\$66
2012	\$17	\$68	\$12	\$ 97	\$68	\$0	\$0	\$0	\$68
2013	\$17	\$70	\$12	\$99	\$70	\$0	\$0	\$0	\$70
2014	\$17	\$71	\$12	\$100	\$71	\$0	\$0	\$0	\$71
2015	\$17	\$73	\$12	\$102	\$73	\$0	\$0	\$0	\$73
2016	\$17	\$75	\$12	\$104	\$75	\$0	\$0	\$0	\$75
2017	\$17	\$76	\$12	\$106	\$76	\$0	\$0	\$0	\$76
2018	\$17	\$78	\$12	\$107	\$78	\$0	\$0	\$0	\$78
2019	\$17	\$80	\$12	\$109	\$80	\$0	\$0	\$0	\$80
2020	\$17	\$82	\$12	\$111	\$82	\$0	\$0	\$0	\$82
2021	\$17	\$84	\$12	\$113	\$84	\$0	\$0	\$0	\$84

Present Value		Present Value	
of Benefits	\$913	of Costs	\$719

Benefit/Cost	
Ratio	1.27

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program RIM Test - Calculated Data

Appliance Type Cocking

PGA Rate Escalator Base Rate Escalator Electric Rate escalator

Depreciation Rate - Supply Main Depreciation Rate - Development Main Depreciation Rate - Service Line Depreciation Rate - Meter

2.80% 2.80% 4.40% 5.40%

Customer Charge - Gas Customer Charge - Electric Inflation factor

Table 1			
R	evenue - E	nergy Chan	ge
1	2	3	2.3
Year	Therms	Base Rate	Total Rate
2005	45	\$0,3767	\$17
2006	45	\$0.3767	\$17
2007	45	\$0.3767	\$17
2008	45	\$0.3767	\$17
2009	45	\$0,3767	\$17
2010	45	\$0,3767	\$17
2011	45	\$0.3767	\$17
2012	45	\$0,3767	\$17
2013	45	\$0.3767	\$17
2014	45	\$0,3767	\$17
2015	45	\$0.3767	\$17
2016	45	\$0.3767	517
2017	45	\$0.3767	\$17
2018	45	\$0.3767	\$17
2019	45	\$0.3767	\$17
2020	45	\$0.3767	\$17
2021	45	\$0.3767	\$17
2022	45	SC.3767	\$17
2023	45	\$0.3767	\$17
2024	45	\$0.3767	\$17

R	evenue - Cost	of Gas	
1.	2	4	2-3
Year	Therms	PGA Rate	Total Rate
2005	45	\$1.1900	\$54
2006	45	\$1.2186	\$55
2007	45	\$1.2478	\$56
2008	45	\$1.2778	\$57
2009	45	\$1.3084	\$59
2010	45	\$1.3398	\$60
2011	45	\$1,3720	\$62
2012	45	\$1.4049	\$63
2013	45	\$1,4386	\$65
2014	45	\$1.4731	\$66
2015	45	\$1.5085	\$68
2016	45	\$1.5447	\$70
2017	45	\$1,5818	\$71
2018	45	\$1.6197	\$73
2019	45	\$1,6586	\$75
2020	45	51.6984	\$76
2021	45	\$1,7392	\$78
2022	45	\$1.7809	\$80
2023	45	\$1.8237	\$82
2024	45	\$1.8674	\$84

		enue - Custon	ner Charge	
_1	2	3	4	4*3
			Ratio of	
			Therms	
	Customer	Annual	Consumed	Prorated
Year	Charge/Mo	Cust. Chg	To Total	Cust. Cho
2005	\$10.00	\$120.00	10.16%	\$12
2006	\$10.00	\$120.00	10,16%	\$12
2007	\$10.00	\$120.00	10.16%	\$12
2008	\$10,00	\$120.00	10.16%	\$12
2009	\$10,00	\$120.00	10.16%	\$12
2010	\$10.00	\$120.00	10.16%	\$12
2011	\$10.00	\$120,00	10.16%	512
2012	\$10.00	\$120.00	10.16%	\$12
2013	\$10.00	\$120.00	10.16%	\$12
2014	\$10.00	\$120.00	10.16%	\$12
2015	\$10.00	\$120.00	10.16%	\$12
2016	\$10.00	\$120.00	10,16%	\$12
2017	\$10.00	\$120,00	10.16%	\$12
2018	\$10.00	\$120.00	10.16%	\$12
2019	\$10.00	\$120.00	10.16%	\$12
2020	\$10.00	\$120.00	10.16%	\$12
2021	\$10.00	\$120.00	10,16%	\$12
2022	\$10.00	\$120.00	10.16%	\$12
2023	\$10.00	\$120.00	10.16%	\$12
2024	\$10.00	\$120.00	10.16%	\$12

Investment Carrying Costs										
1	2	3	4	5	6	7	8	6*7*8		
	Supply	Development	Service		Customer	Avg Cost	Ratio of Therms	Carrying Chg		
Year	Main	Main	Line	Meter	Cost	of Debt	Consumed To Total	Mains & Svc		
2005	\$0	\$0	\$0	\$0	\$0	8.83%	10.16%	\$0		
2006	\$0	\$0	\$0	\$0	S0	8.83%	10.16%	\$0		
2007	SO.	SO	\$0	\$0	\$0	8.83%	10.16%	\$0		
2008	\$0	50	\$0	\$0	\$0	8.33%	10.16%	\$0		
2009	\$0	\$0	SO	\$0	SO	8.83%	10.16%	\$0		
2010	\$0	\$0	\$0	so	SO	8.83%	10.16%	\$0		
2011	\$0	\$0	\$0	30	SO.	8.83%	10.16%	\$0		
2012	\$0	\$0	\$0	SU	20	8.83%	10.16%	\$0		
2013	50	\$0	S0	SO	\$0	8.83%	10.16%	\$0		
2014	\$0	\$0	SO	\$0	SO.	8.83%	10,16%	\$0		
2015	\$0	\$0	\$0	20	\$0	B.B3%	10.16%	\$0		
2016	SO	SD	\$0	SO	20	8.83%	10.16%	\$0		
2017	\$0	50	SO	30	\$D	8.83%	10.16%	\$0		
2018	\$0	\$0	\$0	50	so	8.83%	10.16%	\$0		
2019	\$0	\$0	\$0	\$0	\$0	8.83%	10.16%	\$0		
2020	\$0	\$0	\$0	\$0	so	8.83%	10,16%	\$0		
2021	\$0	\$0	\$0	\$0	SO	8.83%	10.16%	\$0		
2022	\$0	SO.	30	\$0	\$0	8.83%	10.16%	\$0		
2023	50	\$0	\$0	\$0	\$0	8.83%	10.16%	\$0		
2024	SO	S0	\$0	\$0	\$0	8,83%	10,15%	\$0		

			Incre	emer	ıtal Cu	storr	er Co	sts		
1	2	3	4	5	≃3*4		6	7	8=6*7	5+8
	Adm.	Annual	Ratio Therms To	Cu	stomer	0	8 M	Ratio Therms To	Main	New Customer
Year	Cost	Adm, Cost	Total Consumed	C	osts	(Cast	Total Consumed	Cost	Adm. & Main O&N
2005	\$0.00	\$0	10.16%	s	-	\$	-	10.16%	\$0	\$0
2006	\$0.00	\$0	10,16%	\$	-	\$	-	10.16%	\$0	\$0
2007	\$0.00	\$0	10.16%	\$	-	\$	-	10.16%	\$0	\$0
2008	00.02	\$0	10.16%	\$	-	5	-	10.16%	\$0	\$0
2009	\$0.00	\$0	10.16%	\$	-	\$		10,16%	\$0	\$0
2010	\$0.00	\$0	10.16%	S	-	\$	-	10.16%	\$0	\$0
2011	\$0.00	\$0	10.16%	\$	-	\$	-	10.16%	\$0	\$0
2012	\$0.00	\$0	10.16%	S	-	\$	-	10.16%	\$0	\$0
2013	\$0.00	\$0	10.16%	s	-	\$	-	10.16%	\$0	\$0
2014	\$0.00	30	10.16%	5	-	\$	-	10.16%	\$0	\$0
2015	\$0,00	SD	10.16%	5		5	-	10.16%	\$0	\$0
2016	\$0.00	\$0	10.16%	\$	-	\$	-	10.16%	\$0	\$0
2017	50,00	\$0	10.16%	\$	-	\$	-	10.16%	\$0	\$0
2018	\$0.00	\$0	10,16%	\$	-	s	-	10,16%	\$0	\$0
2019	\$0.00	\$0	10,16%	S	-	\$	-	10.16%	\$0	\$0
2020	\$0.00	SO	10.16%	s	-	\$	-	10.16%	\$0	\$0
2021	\$0.00	\$0	10,16%	S	-	5		10.16%	\$0	50
2022	\$0,00	\$0	10.16%	S	-	\$	-	10.16%	\$0	\$0
2023	\$0.00	\$0	10.16%	s	-	s	-	10,16%	\$0	\$0
2024	\$0.00	\$0	10.16%	s		5	-	10.16%	\$0	\$0

Gas Costs							
1	2	3	2*3				
	Therms	Commodity Gas	Gas Supply				
Year		Supply Cost	Cost				
2005	45	1.1900	\$54				
2006	45	\$1.2186	\$55				
2007	45	\$1.2478	\$56				
2008 -	45	\$1.2778	\$57				
2009	45	\$1.3084	\$59				
2010	45	\$1,3398	\$60				
2011	45	51.3720	\$62				
2012	45	\$1.4049	\$63				
2013	45	\$1.4386	\$65				
2014	45	\$1,4731	\$66				
2015	45	\$1,5085	\$68				
2016	45	\$1.5447	\$70				
2017	45	\$1,5818	\$71				
2018	45	\$1.6197	\$73				
2019	45	\$1,6586	\$75				
2020	45	\$1.6984	\$76				
2021	45	\$1.7392	\$78				
2022	45	\$1.7809	\$80				
2023	45	\$1.8237	\$82				
2024	45	\$1.8674	\$84				

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Cost Effective Results

Appliance Type

Cooking

			Benefits						Costs				
Year	Year Number	Avoided Electric Cost	Gas Rebate	Avoided Electric O&M	TOTAL BENEFITS	Gas Equipment Cost	Electric Equipment & Installation Cost	Gas Installation Cost	Gas Appliance O & M	Incremental Gas PGA Cost	Incremental Gas Energy Cost	Gas Customer Charge	TOTAL COSTS
		Table 1								Table 2	Table 3	Table 4	
1	2	3	4	5	3 thru 6	7	8	9	10	11	12	13	7 thru 13
2005	1	\$147	\$100	\$36	\$283	\$449	(\$574)	\$200	\$36	\$59	\$19	\$13	\$202
2006	2	\$149	0	\$37	\$186	0	0	0	\$37	\$60	\$1 9	\$13	\$129
2007	3	\$151	0	\$38	\$189	0	0	0	\$38	\$62	\$19	\$13	\$132
2008	4	\$153	0	\$39	\$191	0	0	0	\$39	\$63	\$19	\$13	\$134
2009	5	\$155	0	\$40	\$194	0	0	0	\$40	\$65	\$19	\$13	\$136
2010	6	\$157	0	\$41	\$197	0	0	0	\$41	\$66	\$ 19	\$13	\$139
2011	7	\$159	0	\$42	\$200	0	0	0	\$42	\$68	\$19	\$13	\$141
2012	8	\$161	0	\$43	\$203	0	0	0	\$43	\$70	\$19	\$13	\$144
2013	9	\$163	0	\$44	\$206	0	0	0	\$44	\$71	\$19	\$13	\$147
2014	10	\$165	0	\$45	\$209	0	0	0	\$45	\$73	\$19	\$13	\$150
2015	11	\$166	0	\$46	\$212	0	0	0	\$46	\$75	\$19	\$ 13	\$152
2016	12	\$168	0	\$47	\$215	0	0	0	\$47	\$76	\$19	\$13	\$155
2017	13	\$170	0	\$48	\$218	0	0	0	\$48	\$78	\$19	\$ 13	\$158
2018	14	\$172	100	\$49	\$321	626	(008)	279	\$49	\$80	\$19	\$ 13	\$266
2019	15	\$174	0	\$50	\$224	0	0	0	\$50	\$82	\$19	\$ 13	\$164
2020	16	\$176	0	\$51	\$228	0	0	0	\$51	\$84	\$19	\$13	\$168
2021	17	\$178	0	\$53	\$231	0	0	0	\$53	\$86	\$19	\$13	\$171
2022	18	\$180	0	\$54	\$234	0	0	0	\$54	\$88	\$19	\$13	\$174
2023	19	\$182	0	\$55	\$237	0	0	0	\$55	\$90	\$19	\$13	\$177
2024	20	\$184	0	\$56	\$240	0	0.	0	\$56	\$92	\$19	\$13	\$181

Present Value ____ of Benefits

\$2,126

Present Value of Costs \$1,530

Benefit/Cost 1.39
Ratio

Peoples Gas System - Energy Conservation Filing 2006 Residential Appliance Retention Program Participants Test - Data

Appliance Type
Cooking

 O8.M expense
 2%
 PGA Gas Ra
 2%
 Customer Ct
 0%

 Electric rates (fu
 2%
 PGA Base R.
 0%

 	Electric	KWH Cost - T.	able 1		Gas Supply Cost - Ta				Table 2	
Year	Unit KWH Cost	Annual KWH used	Tax & Fees	Electric Cost		Year	Therm Cost	Annual Therms used	Tax & Fees	Gas Cost
^_	В	С	D	B*C*(1+D)		A	В	С	D	B*C*(1+D)
2005	\$0.1020	1,310	10.00%	\$147		2005	\$1.1900	45	10.00%	\$59
2006	\$0.1034	1,310	10.00%	\$149		2006	\$1.2186	45	10.00%	\$60
2007	\$0.1047	1,310	10.00%	\$151		2007	\$1.2478	45	10.00%	\$62
2008	\$0.1061	1,310	10.00%	\$153		2008	\$1.2778	45	10.00%	\$63
2009	\$0.1074	1,310	10.00%	\$155		2009	\$1.3084	45	10.00%	\$65
2010	\$0.1088	1,310	10.00%	\$157		2010	\$1.3398	45	10.00%	\$66
2011	\$0.1101	1,310	10.00%	\$159		2011	\$1.3720	45	10.00%	\$68
2012	\$0.1115	1,310	10.00%	\$161		2012	\$1.4049	45	10.00%	\$70
2013	\$0.1128	1,310	10.00%	\$163		2013	\$1.4386	45	10.00%	\$71
2014	\$0.1142	1,310	10.00%	\$165		2014	\$1.4731	45	10.00%	\$73
2015	\$0.1155	1,310	10.00%	\$166		2015	\$1.5085	45	10.00%	\$75
2016	\$0.1169	1,310	10.00%	\$168		2016	\$1.5447	45	10.00%	\$76
2017	\$0.1182	1,310	10.00%	\$170		2017	\$1.5818	45	10.00%	\$78
2018	\$0,1196	1,310	10.00%	\$172		2018	\$1.6197	45	10.00%	\$80
2019	\$0.1209	1,310	10.00%	\$174		2019	\$1.6586	45	10.00%	\$82
2020	\$0.1223	1,310	10.00%	\$176		2020	\$1.6984	45	10.00%	\$84
2021	\$0.1236	1,310	10,00%	\$178		2021	\$1,7392	45	10.00%	\$86
2022	\$0.1250	1,310	10.00%	\$180		2022	\$1,7809	45	10.00%	\$88
2023	\$0.1263	1,310	10.00%	\$182		2023	\$1.8237	45	10.00%	\$90
2024	\$0.1277	1,310	10.00%	\$184		2024	\$1.8674	45	10.00%	\$92

Gas Energy Charge - Table 3									
Year	Rate Per Therm	Annual Therms used	Tax & Fees	Gas Cost					
Α	В	С	D .	B*C*(1+D					
2005	\$0.3767	45	10.00%	\$19					
2006	\$0.3767	45	10.00%	\$19					
2007	\$0.3767	45	10.00%	\$19					
2008	\$0.3767	45	10.00%	\$19					
2009	\$0.3767	45	10.00%	\$19					
2010	\$0.3767	45	10.00%	\$19					
2011	\$0,3767	45	10.00%	\$19					
2012	\$0.3767	45	10,00%	\$19					
2013	\$0.3767	45	10.00%	\$19					
2014	\$0.3767	45	10.00%	\$19					
2015	\$0.3767	45	10.00%	\$19					
2016	\$0.3767	45	10.60%	\$19					
2017	\$0.3767	45	10.00%	\$19					
2018	\$0.3767	45	19.00%	\$19					
2019	\$0.3767	45	10.00%	\$19					
2020	\$0.3767	45	10.00%	\$19					
2021	\$0.3767	45	10.00%	\$19					
2022	\$0.3767	45	10.00%	\$19					
2023	\$0.3767	45	10.00%	\$19					
2024	\$0.3767	45	10 00%	\$19					

		Gas	Customer C		ole 3		
Year	Monthly Cust. Charge	Annual Cust. Charge	Appliance Annual Therms	Total Annual Therms	Ratio - Appliance to Total	Tax & Fees	Pro-Rated Cust Charge
A	В	С	D	E	D/E	G	C*(D/E)*(1+Z
2005	\$10	\$120.00	45	443	10.16%	10.00%	\$13
2006	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2007	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2008	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2009	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2010	\$10.00	\$120.00	45	443	10.16%	10,00%	\$13
2011	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2012	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2013	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2014	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2015	\$10.00	\$120.00	45	443	10,16%	10.00%	\$13
2016	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2017	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2018	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2019	\$10.00	\$120.00	45	443	10,16%	10.00%	\$13
2020	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2021	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2022	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2023	\$10.00	\$120.00	45	443	10.16%	10.00%	\$13
2024	\$10.00	\$120.00	45	443	10,16%	10.00%	\$13

Program 1 RESIDENTIAL HOME BUILDER PROGRAM

I. Program Description

The objective of this program is to reduce the growth rates of electric consumption, increase the conservation of energy resources and minimize ratepayers' total energy cost. This program is designed to expand the overall energy efficiency in the new home construction market through the installation of efficient gas appliances. The incentives offered to builders under this program are designed to assist in defraying the added cost of gas piping and venting. Participation in this program is open to any builder or developer of homes who installs the following energy efficient appliances: whole house gas heating, and/or water heating. Allowances are available for the installation of a range or cook top and clothes dryer if either the water heating or whole house gas heating appliances are installed.

II. Program Participation Standards

Any builder of a new single family residential dwelling, or multi-family dwelling who installs energy efficient gas fired heating and/or water heating can participate in this program. Builders participating in the program will receive an incentive in the form of a cash allowance to assist in defraying the added cost of construction associated with piping and venting required for the installation of gas equipment. For multi-family residential installations with central heating and/or water heating systems, Peoples would pay allowances based on the number of residential dwelling units served by the central system.

III. Program Allowances

The allowances under this program are as follows:

	Water			
	<u>Heater</u>	Heating	Range	Dryer
Tank	\$350	\$350	\$100	\$100
Tankless	\$450			

If a residence installs multiple appliances of the same type, i.e. two water heaters or furnaces, the additional units may be paid an additional allowance. This does not apply to a range or dryer.

Program 2

GAS LOAD RETENTION PROGRAM

I. Program Description

This program is designed to promote the continued use of gas for water heating, heating, cooking and clothes drying thereby reducing gas to electric conversions. The tendency, often under emergency situations (leaking or inoperative equipment), is to make a quick fix by replacing an existing gas water heater with electric because of lower first cost and easier installation. When this occurs, other efforts designed to reduce consumption and KW demand are negated. This program is designed to promote the efficiencies of gas and continue the conservation of petroleum fuels, KWH consumption and KW demand.

The program will emphasize gas water heater installations because they are generally the greatest energy user in the home or business on a year around basis. By providing incentives to keep this appliance in place, the program retains gas service to the customer and encourages additional potential utilization of gas in replacement of other electric resistance appliances.

II. Program Participation Standards

Any current customer using gas for water heating, heating, cooking or clothes drying can participate in the program when they replace an existing natural gas appliance with an energy efficient appliance. The allowance is designed to defray the higher purchase cost associated with gas appliances and generally higher installation cost over similar sized electric appliances.

III. Program Allowances

Allowances under the program are as follows:

\$450
\$350
\$350
\$100
\$100

Program 3 RESIDENTIAL ELECTRIC RESISTANCE APPLIANCE REPLACEMENT PROGRAM

I. Program Description

The objective of this program is to reduce the growth rates of electric consumption and to optimize the use of existing gas facilities. This program is designed to reactivate existing service lines, convert seasonal gas heating customers to year round usage and convert non-customers from electric to gas. Participation in the program is open to current customers or potential customers who, by virtue of their location, have gas service available to them.

II. Program Participation Standards

Any current or potential residential customer using electricity for water heating, strip central heating, cooking, clothes drying or space heating is eligible to participate in the program by replacing an electric appliance with a gas appliance. Electric resistance appliances must be replaced with energy efficient gas appliances. Participating customers will receive an incentive allowance to assist in defraying the additional cost of gas piping and appliance venting required for conversion from electric energy to gas including the cost of an energy efficient gas water heater if replacing electric.

III. Program Allowances

The eligible appliances and allowances under the program are:

Tank Water Heater	\$525
Tankless Water Heating	\$525
Heating	\$625
Cooking	\$100
Clothes Dryer	\$100
Space Heating	\$65

Program 4 COMMERCIAL ELECTRIC APPLIANCE RESISTANCE APPLIANCE REPLACEMENT PROGRAM

I. Program Description

This program is designed to convert on-main, non-residential customers from electric resistance appliances to every efficient gas appliances, effectively reducing kW and kWh within our service area to reduce the growth rates of electric consumption.

II. Program Participation Standards

Offer non-residential customers an incentive allowance of \$40 per kW deferred to assist in defraying the additional cost of gas piping and venting required for conversion from electric to gas and the cost of an energy efficient gas appliance. Program is available to non-residential customers replacing electric equipment with an input of 6,000 watts or more with an energy efficient gas appliance.

III. Program Allowances

Allowance: \$40/kw deferred Maximum: \$4,000 per project

Program 5 GAS SPACE CONDITIONING ALLOWANCE PROGRAM

I. Program Description

This program is designed to convert on-main customers from electric space conditioning equipment to energy efficient gas space conditioning equipment. The program offers an allowance to reduce generally higher first costs of gas space conditioning equipment over equivalent electric equipment. This program would also reduce summer as well as winter peak demand and contribute to the conservation of KWH consumption. The Gas Space Conditioning Program is intended to include participation by residential and commercial firm gas customers and is intended to apply to total space conditioning which includes not only heating and cooling but also humidity control.

II. Program Participation Standards

Any current gas customer or potential customer using electricity for space conditioning would be offered an incentive allowance of \$150 per ton to assist in defraying the additional cost of conversion to gas and the cost of energy efficient gas equipment. The program is available to customers replacing electric space conditioning with gas equipment having a COP of .8 or above.

III. Program Allowances

\$150 per ton up to a maximum of 100 tons

Program 6 SMALL PACKAGE COGENERATION AND FEASIBILITY STUDY PROGRAM

I. Program Description

This program will promote the direct use of natural gas to generate 'on-site power with options to utilize the waste heat for heating, cooling and water heating. This program would also help off-set the cost of feasibility studies for customers interested in obtaining information necessary to make a decision to proceed with cogeneration installations.

This program is designed to support the goals of the overall conservation program effort and addresses specifically reducing kilowatt hour (KWH) consumption increasing the conservation of petroleum fuels, and promoting the increase of the efficient use of natural gas. Electrical power production generated from a cogeneration facility defers KWH on a one to one basis. The use of the rejected heat raises the thermal efficiency of the facility and further reduces KWH consumption.

II. Program Participation Standards

This program would allow eligible customers to receive incentive dollars to assist in defraying the cost of engineering feasibility studies. The customer would also be eligible for an incentive allowance to assist in defraying the cost of cogeneration equipment, and installation. Any current or potential non-residential customer would be eligible for the program. Eligibility is, however, conditioned on the results of a preliminary cost effectiveness analysis based on fuel, maintenance and capital expenses of the proposed project.

III. Program Allowances

Feasibility study: Maximum of \$5,000 per project.

Equipment/Installation: \$150 per KWD deferred up to 150 KWD maximum per

project

Program 7 Program Monitoring, Evaluation, and Research Demonstration

I. Program Description

The projected costs and benefits of the Company's Energy Conservation Programs are affected by the number of participating customers, the extent of their participation, as well as the assumptions used in estimating costs and savings to be derived from the programs. Continual monitoring and evaluation of other conservation programs, and existing and new technologies, will enable the Company and the Commission to more accurately assess the costs incurred and benefits derived from energy conservation programs.

II. Program Standards

Program monitoring, evaluation and research demonstration includes but is not limited to:

Evaluation of KW demand and Kwh consumption attributable to electric appliances replaced by energy efficient gas appliances

Gas consumption of gas appliances based on varying conditions, i.e. climate, lifestyle, etc.

Evaluation and demonstration of technologies such as desiccant cooling, self-generation, fuel cells, or other technologies which may hold promise for improving energy conservation and reduction of alternative fuel sources.

When a technology or program is under evaluation, accurate records will be maintained by the Company to document gas consumption as well as the associated alternative fuel savings as it relates to demand and consumption. The program monitoring and evaluation and research demonstration will be carried out at an annual estimated cost of \$80,000.