# $\mathrm{M} \mid \mathrm{C}$ <br> S <br> MESSER CAPARELLO \& SElf, P.A. Attorneys At Law <br> unuw.lawfla.com 

March 12, 2009

## BY HAND DELIVERY

Ms. Ann Cole, Commission Clerk
Office of Commission Clerk
Room 110, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.


Tallahassee, Florida 32399-0850
090122
Dear Ms. Cole:
Enclosed for filing on behalf of Associated Gas Distributors of Florida is an original and fifteen copies of Associated Gas Distributors of Florida's Petition for Approval of Modifications to Approved Energy Conservation Programs.

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

Thank you for your assistance with this filing.


NHH/amb
Enclosures
cc: Parties of Record
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ECR $\qquad$
GCL
OPC


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SSC
SGA) 13
ADM $\qquad$
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## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Approval of Energy Conservation Programs

DOCKET No. 090122
Filed: March 12, 2009

## PETITION OF ASSOCIATED GAS DISTRIBUTORS OF FLORIDA FOR APPROVAL OF MODIFICATIONS TO APPROVED ENERGY CONSERVATION PROGRAMS

Associated Gas Distributors of Florida ("Petitioner" or "AGDF"), by and through its undersigned counsel petitions the Florida Public Service Commission ("Commission") on behalf of its members for approval of new and modified energy conservation programs, and in support of its petition states:

1. The exact name and address of the principal office of the Petitioner is as follows:

Associated Gas Distributors of Florida
P.O. Box 11026

Tallahassee, Florida 32302
2. Notices and communications with respect to this petition and docket should be addressed to the following:

Norman H. Horton, Jr.
Messer, Caparello \& Self, P. A.
Post Office Box 15579
Tallahassee, FL 32317
(850)222-0720
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Attorneys for AGDF
and
Stuart Shoaf, President
Associated Gas Distributors of Florida
c/o St. Joe Natural Gas Company, Inc.
P.O. Box 549

Port St. Joe, Florida 32456
document humber-date
02169 MAR $12:$
3. AGDF is a trade association representing the following investor-owned natural gas utilities which are subject to the jurisdiction of the Florida Public Service Commission ("FPSC") under Chapter 366, F.S.: Florida City Gas ("City Gas"), Florida Division of Chesapeake Utilities Company ("Chesapeake"), Florida Public Utilities Company ("FPUC"), Indiantown Gas Company ("Indiantown"), Peoples Gas System ("Peoples Gas"), Sebring Gas System ("Sebring") and St. Joe Natural Gas Company ("St. Joe"). These member companies are all of the investor owned natural gas local distribution companies (LDCs) subject to the jurisdiction of the FPSC.
4. AGDF was originally formed as a Florida Corporation Not For Profit in 1985 to represent the interests of its members before the Federal Energy Regulatory Authority (FERC) during Florida Gas Transmission rate and open access proceedings. Subsequently, AGDF has participated in numerous rate case and other pipeline proceedings at the FERC, conducted research on the gas quality and pipeline integrity impacts of adding LNG to transmission pipeline gas streams, and at the state level has played an active role on behalf of its members in the Florida Commission's gas unbundling proceedings, developed the "Get Gas Florida" joint state-wide advertising campaign, and participated in numerous other regulatory, research and business activities on behalf of its members.
5. The purpose of this and subsequent petitions is to seek approval of modifications to the energy conservation programs of each LDC either through addition of programs or modification of existing programs such that when this process is complete, the programs of each company will be similar and the rebates available through each company will be similar. Having common programs and
incentives statewide would enable AGDF to expand and improve the conservation related Get Gas Florida advertising and consumer education activities conducted on behalf of the LDCs. Each of the member LDCs have conservation programs, but there may be differences in the description or allowances in the case of similar programs, and one, or more, of the members may have a program that the others do not. The goal of the members is to have common core residential and commercial programs and allowance amounts for each member, in part to facilitate the conservation related advertising conducted through the Get Gas Florida campaign on behalf of AGDF members. This requires modification of one or more programs for each member and to aid the process, AGDF will file a series of petitions that will result in the members having common core programs. The Energy Conservation Cost Recovery (ECCR) factors for each LDC would continue to be established based on individual company calculations in the annual Commission docket established for that purpose. The ECCR factor determination would be made consistent with the process and schedule in that docket and nothing in this petition is intended to affect the currently approved factors for the individual companies.
6. This petition is being filed by AGDF on behalf of all of its members, each of whom has standing to bring a similar petition in their own right. AGDF has an interest in this petition as well because of the past representation of the LDCs as described and relationship of the energy programs to AGDF sponsored education and marketing efforts for the member LDCs. Standing for AGDF to file this petition is therefore appropriate pursuant to Florida Home Builders Association vs. Department of Labor and Security, 412 So.2d 351 (Fla. 1982),
and Farm Worker Rights Organization, Inc. v. Dept. of Health and Rehabilitative Services, 417 So.2d 753, (1 ${ }^{\text {st }}$ DCA, 1982). AGDF would also note that the instant petition replaces seven (7) separate petitions and facilitates the review and decision process required by staff and the Commission thereby contributing to administrative economies. The Commission has frequently consolidated dockets involving multiple companies when the issues and objectives are similar and when administrative efficiencies are served and it would be within the authority and appropriate for the Commission to accept and process this petition from AGDF.

## SUMMARY OF PETITION

7. By this petition, AGDF seeks Commission approval pursuant to Rule 25-17 F.A.C., for the adoption of the following energy conservation programs to be offered by its member LDCs:

- Conservation Demonstration and Development Program. The program would support research efforts to monitor, and modify as needed, program standards and consumer participation strategies related to current conservation activities; develop and demonstrate the effectiveness of new programs and/or technologies; and contribute to obtaining the efficiency, conservation and climate change data necessary to design and implement effective programs.
- Propane Distribution System Conversion Program. The program would contribute to the reduction in electric demand by promoting the use of propane gas in residential developments that are beyond the economic extension of the natural gas utility and encouraging conversion of such
systems, through the payment of homeowner conversion incentives, when natural gas becomes available.


## BACKGROUND

8. Each of the state's investor-owned natural gas Local Distribution Companies (LDCs) currently administer Commission approved conservation programs and participate in the Energy Conservation Cost Recovery process as provided in Commission Rule $25-17.015$, F.A.C. All AGDF member LDCs offer residential conservation programs. Certain LDCs also offer non-residential programs for businesses and industrial customers. Attachment 1 to this petition provides a summary of the approved gas conservation programs offered by each LDC.
9. The principal intent of the currently-adopted gas conservation programs is to increase the direct end-use of efficient natural gas appliances and equipment in Florida buildings. Gas conservation programs are supportive of the finding by the Legislature expressed in the Florida Energy Efficiency and Conservation Act (FEECA) that, "[r]eduction in, and control of, the growth rates of electric consumption and of weather-sensitive peak demand are of particular importance." (sec. 366.81 , F.S.). In addition, gas programs play an important role in meeting FEECA's objective of, "...increasing the overall efficiency and cost effectiveness of ... natural gas production and use." (sec. 366.81, F.S.). The direct use of natural gas in residences and businesses contribute to achieving FEECA conservation objectives in two important ways, i) natural gas appliances and equipment displace electricity consumption and demand at the site of end-use and, ii) given the energy lost in the generation and transmission of electricity and
the significant use of natural gas for electricity generation in Florida, increasing the direct end-use of gas by consumers can ultimately reduce the total quantities of natural gas used in Florida. A 2008 study conducted for the American Gas Foundation by Black and Veatch Engineering quantified the national impact of the direct use of natural gas on energy consumption. Black and Veatch found that if, by the year 2030, six-percent (6\%) of U.S. residential and commercial energy requirements shifted from electricity to natural gas would result in an energy savings of 1.25 to 2.00 quadrillion Btus, which would equal enough gas to serve all of Florida's requirements for two years. By 2016 Florida will rely on natural gas for $45 \%$ of its electric generation fuel according to Facts and Figures of the Florida Utility Industry, March 2008, published by the Commission. The direct use market penetration of natural gas is low in Florida (approximately $8 \%$ of Florida residences use natural gas) compared to most states (the national average is approximately $50 \%$ of households according to 2007 data from the Energy Information Administration and US Census). The opportunity to achieve substantive energy savings by increasing the direct use of gas by Florida consumers may, on a relative basis, exceed national estimates.
10. The majority of natural gas conservation expenditures are targeted to increase the installation of gas appliances in new home construction, replace electric appliances with natural gas in existing residences and businesses, and retain natural gas as the selected fuel when consumers replace an appliance at the end of the appliance's service life. Increasing the direct end-use of natural gas through the new construction and electric conversion incentives offered in the gas programs reduces consumption and demand on the electric grid. The gas
retention programs also mitigate electric load growth as well as supporting the general conservation of natural gas resources by encouraging existing gas consumers to replace old inefficient gas appliances with new highly-efficient gas appliances, such as tankless water heaters. The retention allowances also help an LDC avoid the cost of meter removal and, ultimately, the cost of cutting and capping service lines as is required by Commission Rule $25-12.045$, F.A.C., Inactive Gas Service Lines. When a customer is lost, the typical cost to remove the meter and cut and cap the service is approximately $\$ 400$. If a consumer replaces gas appliances with electricity, it not only works against the objectives of FEECA, but may also be a factor in future rate increases for gas ratepayers.
11. Natural gas conservation programs also make a substantive contribution to achieving Florida's carbon reduction and climate protection goals. The displacement of electric appliances with gas appliances and the efficiency upgrade of older existing gas appliances reduce both source-based electric generation carbon emissions and site-based gas appliance emissions. The Black and Veatch Engineering study referenced above found that millions of tons of $\mathrm{CO}_{2}$ emissions would be reduced by a six-percent shift of residential and commercial loads from electricity to natural gas by 2030. The reduction of greenhouse gas emissions through actions by power generators, energy efficiency improvements in Florida buildings, the increased use of renewable energy resources and improvements in transportation fuel and efficiencies has been mandated by both the Governor in Executive Order (07-127) and subsequently by the 2008 Legislature with the passage of the HB 7135. In addition to establishing specific emission reduction targets for electric generators
and the transportation sector, the Legislature mandated a $50 \%$ increase in the stringency of the Florida Energy Code for Building Construction over the next decade. These more rigorous building efficiency standards were directly linked to the state's climate protection policies. Increasing the direct end-use of natural gas through active LDC promotion of new construction gas conservation programs can help residential and commercial builders meet the emerging, more efficient code standards. Perhaps of greater overall impact is the opportunity to retrofit the millions of existing older buildings in Florida. A June 2007 study by the American Council for an Energy- Efficient Economy (ACEEE), with contributions from the Florida Solar Energy Center, entitled, Potential for Energy Efficiency and Renewable Energy to Meet Florida's Growing Energy Demand, outlined a number of Florida specific building and appliance related utility sponsored efficiency programs that could result in demand savings of over 5,800 MW by 2023. A recent study by Peoples Gas found that the conversion of 1,000 electric water heaters to natural gas could save 500 KW of annual generation capacity, reduce overall annual gas use by 163,000 therms (reduction in generation fuel requirements) and reduce carbon emissions by 3.1 million pounds.
12. FEECA, and the utility conservation programs it supports, is one of the primary tools for implementing energy policy in Florida. It appears evident that FEECA's objectives are intrinsically aligned with the climate change agenda outlined by the Governor and Legislature. The intent of FEECA (sec. 366.81, F.S) is to promote, "... the most efficient and cost-effective demand-side renewable energy systems and conservation systems in order to protect the health, prosperity and general welfare of the state and its citizens." HB 7135 established the Florida Energy and

Climate Commission (FECC) and the legislature specifically included the FECC as a party to the Commission's FEECA goal setting proceedings (sec. 366.82 (5). Section 366.82 (3) (d) F.S., requires the Commission to consider, "The costs imposed by state and federal regulations on the emission of greenhouse gases." The gas conservation programs authorized by the Commission can help achieve the energy conservation, electric load growth mitigation and carbon emission reduction goals set by state policymakers.

## Prior Commission Authorization of Uniform Residential Gas Conservation Programs

13. Beginning in September 2006 and continuing through 2007, each investor-owned LDC separately petitioned for and received Commission approval to modify their existing residential conservation programs, or in the case of Indiantown and Sebring, adopt new programs. As a result of these filings, the Commission approved uniform allowance amounts for each LDC's most active residential programs, (Residential New Construction Program, Residential Appliance Replacement Program and Residential Appliance Retention Program). The new construction program provides cash allowances to homebuilders or developers to encourage gas appliance installations. The appliance replacement program provides allowances for consumers converting residential electric appliances to natural gas. The appliance retention program offers allowances to homeowners replacing or upgrading existing natural gas appliances to encourage the retention of gas appliances. Attachment 1 to this petition includes a summary of the uniform residential programs administered by all LDCs. The current uniform
residential gas conservation programs were approved by the Commission in the Orders listed below:

LDC<br>City Gas<br>Chesapeake<br>FPUC<br>Indiantown<br>Peoples Gas<br>Sebring<br>St. Joe

Order No.
PSC-07-0122-PAA-EG
PSC-07-0197-PAA-EG
PSC-06-0749-PAA-GU
PSC-07-0531-TRF-EG
PSC-06-0816-PAA-EG
PSC-07-0693-TRF-EG
PSC-07-0495-PAA-EG

## Issuance Date

February 12, 2007
March 5, 2007
September 5, 2006
July 20, 2007
October 10, 2006
August 24, 2007
June 11, 2007
14. The development of the uniform residential gas conservation programs was achieved through a cooperative effort among the member utilities of the AGDF. AGDF members jointly participated in compiling the data necessary to assess the cost benefit of each of the uniform programs. Common data was developed for appliance costs, appliance installation costs, energy usage and other similar data utilized in to determine the cost effectiveness of the applicable programs. Each LDCs cost benefit analysis was based on the Gas Rate Impact Measurement (GRIM) Test and Participant Test methodologies (Form PSC/ECR 14-G 4/96) incorporated by reference in Commission Rule 25-17.009, F.A.C. The common data developed by AGDF was used in the respective LDC cost benefit tests approved by the Commission in the above listed Orders. Several cost categories in the cost benefit tests required data specific to an individual LDC. Facility installation investment, service costs, fuel recovery charges, depreciation rates and base rates were developed for each LDC and used in their respective filings.
15. The principal objective of developing uniform residential conservation programs was to increase program participation. Standardizing the allowance amounts and program procedures eliminated or greatly reduced three fundamental difficulties
with gas conservation programs. First, most LDC conservation allowance amounts had not been adjusted since the mid-1990's and were out of sync with market economics. Gas allowances are paid to defray the consumer's initial cost of installing interior piping, venting and the purchase of appliances or equipment. Selecting natural gas is a good economic decision as evidenced by the positive Participants Tests results filed with each gas program. However, higher installation first costs than comparable electric appliances can deter builders, consumers and business owners from installing gas. The uniform residential allowances approved by the Commission represented an increase in the allowance amounts for storage water heating, heating, clothes drying and cooking appliances for most LDCs. The Commission also approved a new high efficiency gas tankless water heating allowance for each of the residential programs.
16. Second, prior to the adoption of the current uniform allowance amounts and program requirements, each LDC program operated under different program criteria which contributed to confusion among potential program participants. For example, homebuilders constructing residences in multiple LDC territories were faced with multiple program procedures and allowance amounts. Variability in the allowances between LDCs created problems for homebuilders evaluating the economics of a gas fuel choice. The uniform programs eliminated this problem.
17. Third, prior to the adoption of uniform programs it was difficult to promote the conservation programs through AGDF's cooperative advertising and consumer education initiatives. The development of uniform residential programs has enabled the natural gas industry to deliver a more powerful and cost-effective
message through its conservation related consumer education programs. Over the past five years, the AGDF has administered a joint energy conservation advertising and customer education program in accordance with the advertising requirements in Commission Rule 25-17.015(5) F.A.C. The joint advertising effort reduces development costs and enables bulk purchasing discounts that greatly increase the coverage and effectiveness of the conservation message. The AGDF statewide "Get Gas Florida" campaign is directed at educating the public about the availability of approved energy conservation programs. Prior to the adoption of the uniform residential gas conservation programs "Get Gas Florida" advertising stopped short of promoting specific conservation allowances, since the allowances were approved in different amounts for each LDC. Current AGDF advertising for residential programs highlights the uniform rebate amounts. Consumer visits to the Get Gas Florida web site have significantly increased since the change in advertising format.

## REQUESTED RELIEF

## Conservation Demonstration And Development Program

18. AGDF seeks Commission approval for a Conservation Demonstration and Development (CDD) Program to be implemented by each AGDF member LDC. The CDD Program would support research and development, demonstration and monitoring projects designed to promote energy efficiency, conservation and reductions in climate change emissions. Each CDD project would be designed to produce results that address one or more of the FEECA goals identified in Section 366.82 (2), F.S. Conservation projects related to appliances, equipment, technologies, and marketing and consumer education strategies would be pursued
under the CDD Program. A variety of activities could be performed under the CDD Program including engineering evaluations, cost benefits analyses, data collection, literature searches, field testing, pilot programs, demonstrations, technology development support, building code analysis and consumer behavior or market evaluations. Several examples of the types of projects AGDF members could support through the CDD Program are listed below.

- Demonstrations of the efficiency and operational costs of solar/gas tankless water heating systems. Such systems are highly efficient, could significantly reduce carbon emissions and directly contribute to FEECA's demand-side renewable energy goals.
- Research into the applications of natural gas vehicles in support of the Governor's and Legislature's transportation conservation initiatives could be undertaken in the CDD Program in support of FEECA's petroleum fuel reduction goals.
- Market research into consumer or homebuilder purchase appliance or fuel type decision making that would assist in designing more effective incentive and consumer education programs.
- Research on emerging cornmercial building technologies such as desiccant dehumidification, gas engine drive cooling, or building techniques for hot, humid climates.
- Monitoring of existing program effects on long-term conservation and emission savings to determine needed program adjustments or improvements.

19. Natural gas industry CDD projects of the type listed above would be designed to foster and promote energy efficiency and conservation principally through the development or modification of Commission approved conservation programs. Such projects are entirely consistent with the intent of FEECA and Commission Rule and practice. Section 366.81, F.S., provides that, "The Legislature finds and declares that it is critical to utilize the most efficient and cost effective demand side renewable energy systems and conservation systems in order to protect the health, prosperity and general welfare of its citizens." The FEECA legislation goes on to declare that the applicable statutes, "... are to be liberally construed in order to meet the complex problems of reducing and controlling the growth rates of electric consumption and reducing the growth rates of weather-sensitive peak demand; increasing the overall efficiency and cost-effectiveness of electricity and natural gas production and use; encouraging the further development of demand-side renewable energy systems; and conserving expensive resources, especially petroleum fuels." The development of natural gas conservation programs able to help meet FEECA objectives should be dependent upon technical, economic and market data produced through the independent study and analysis of conservation options and technologies. The proposed CDD Program would be designed to produce results that would lead to new and better conservation efforts from the natural gas industry.
20. The Commission has a long history of support for conservation R\&D programs. PSC Order No. 22176, issued November 14, 1989, required electric utilities to "... pursue research, development and demonstration projects designed to promote energy efficiency and conservation." Commission Rule 25-17.001 (5) (f), F.A.C.,
requires that electric utilities, "Aggressively pursue research, development and demonstration projects..." The Rule goes on to define an aggressive research programs as including, "... technological research, research on load behavior and related problems and market-related research". All five investor-owned electric utilities regulated by the Commission administer approved conservation R\&D programs.
21. LDCs could jointly fund gas research and demonstration projects under the proposed CDD Program. Joint funding of projects would, i) enable a greater number of overall projects to be completed, ii) eliminate duplicate projects, iii) provide a screening mechanism that ensures priority ranking of potential projects, iv) ensure a broad dissemination of project results to the benefit of all LDCs and v.) reduce the overall project admiristrative costs. Project costs would be equitably allocated among the members. Joint project funding would not inhibit the Commission's ability to audit or otherwise exercise its oversight authority related to an individual LDCs conservation activities.
22. Each approved electric utility research program establishes an annual total expense cap, with the exception of Tampa Electric Company's program which establishes a five-year spending cap. In its most recent DSM Plan approved by the Commission in Order No. PSC-05-0181-PAA-EG, issued February 16, 2005, Tampa Electric Company's Conservation Research and Development Program included an annual spending estimate which may be exceeded in any given year, however, total program costs are capped over a five-year period. In addition, the electric programs all have an individual project cost cap. Individual research or
demonstration projects exceeding the cap require administrative approval from Commission staff prior to project initiation.
23. AGDF proposes to establish a CDD Program cost cap methodology similar to that authorized by the Commission for Tampa Electric Company. The gas CDD Program would set a five-year total program spending cap for each LDC. Individual project costs by LDC would also be capped unless the LDC receives administrative approval to exceed the project cap from Commission staff. Given the size differences between AGDF member LDCs, the five-year and individual project caps would vary by LDC. The following cost caps are proposed:

| LDC | Five-Year Cap |  | Project Cap |
| :--- | ---: | ---: | ---: |
| City Gas | $\$ 500,000$ |  | $\$ 100,000$ |
| Chesapeake | $\$ 300,000$ |  | $\$ 60,000$ |
| FPUC | $\$ 300,000$ |  | $\$ 60,000$ |
| Indiantown | $\$ 50,000$ |  | $\$ 10,000$ |
| Peoples Gas | $\$ 750,000$ |  | $\$ 150,000$ |
| Sebring | $\$ 50,000$ |  | $\$ 10,000$ |
| St. Joe | $\$ 50,000$ | $\$ 10,000$ |  |

24. The proposed CDD Program would be a new conservation program for all AGDF members except Peoples Gas. AGDF is requesting that the Commission approve this program for all of its members including Peoples Gas. When approved, Peoples Gas would modify its existing program to conform to that approved by the Commission in this docket without a further filing.
25. AGDF has not prepared or submitted G-RIM or Participants Tests cost benefit analyses for the proposed CDD Program. To our knowledge no research and
development program (electric or gas) authorized by the Commission has required a cost benefit determination. The nature of R\&D programs preclude such evaluations, since one of the principal aims of such a program is to determine the economic feasibility of the research or demonstration subject. In most cases it would be difficult to determine with reasonable certainty the consumer costs or benefits for a given technology or efficiency measure until the research project is completed. In addition, since no utility would be able to forecast in advance all of the specific projects for which research or demonstration will be conducted, or the results generated, it is not possible to measure cost benefits. Finally, activities funded by the proposed CDD Program are inconsistent with the cost effectiveness evaluations required by the (G-RIM) Test and Participant Test methodologies incorporated by reference in Commission Rule $25-17.009$, F.A.C. These methodologies assume specific actions and incurred costs on the part of consumers participating in a demandside management program along with certain revenues and costs to the LDC.

## Propane Distribution System Conversion Program

26. AGDF seeks Commission approval for a Propane Distribution System Conversion Program to be implemented by each AGDF member LDC. The primary objective of the proposed program is to promote the use of gas in residential new construction projects that are beyond the economic extension of a LDCs natural gas distribution system. In such cases the LDC, an affiliate or a third party propane company, would construct a propane distribution system (mains, service lines, meter, regulators) to natural gas specifications. The propane system would
receive gas from one or more centralized storage tanks and vaporization equipment connected to the distribution main. Typically, the customers on the propane system receive metered service similar to that provided by a natural gas utility. The propane system would "hold" customers on gas until the time natural gas service becomes available. At that time the storage and vaporization equipment would be removed, the development main connected to the natural gas approach main and customer appliances converted from propane to natural gas. A cash allowance to defray the cost of converting propane appliances to natural gas would be available to consumers at the time of conversion.
27. The approval of cash allowances for the conversion of propane appliances to natural gas is consistent with FEECA goals and objectives. Without the construction of propane distribution systems to hold developments on gas until natural gas arrives, the majority of customers in these developments would install electric appliances (the residential market penetration of bulk propane service is estimated at less than $2 \%$ of total Florida residences). Earlier in this petition, the FEECA goals of reducing electric consumption and weather sensitive peak demand were noted. Offering developers and consumers in new residential communities an opportunity to select propane service through a distribution system that resembles natural gas service (no storage tank, no delivery truck, metered service, etc.) will ensure high consumer participation. In propane distribution systems constructed over the past five years by FPUC and Chesapeake, over $98 \%$ of the residents are corinected to the system. Absent the propane distribution system, the vast majority of these residences would be using electricity for water heating, space heating, cooking, clothes drying and pool
heating. A number of econometric forecast models (University of Florida Bureau of Economic and Business Research; Fishkind and Associates Econocast, et. al.) indicate recovery of the residential construction market over the next few years. Most models predict housing starts back to a level approaching 150,000 per year by 2012. As development begins again, the propane hold systems can play an important role in meeting FEECA goals for electric consumption and demand reduction. Approval of the proposed conversion program would support the construction of propane distribution systems by providing allowances to help consumer's convert and retain gas appliances when the system transfers to natural gas.
28. In addition to the opportunities to construct propane distribution systems in future developments, there are existing propane systems that could be converted to natural gas. The Florida Department of Agriculture and Consumer Services, Bureau of Liquefied Petroleum Gas Inspection, currently licenses 431 such systems serving several thousand customers in Florida. The vast majority of these systems are operated by propane retailers not affiliated with an AGDF LDC. Most of the systems are small; the Bureau requires a license on any propane distribution system serving ten (10) of more customers from a central storage tank. From time to time a natural gas distribution system is extended in close proximity to an existing propane distribution system. In some cases the propane retailer is interested in selling the system. The consumer services (meter reading, billing, etc), maintenance and safety compliance required to operate a pipeline distribution system are much different than the non-metered bulk delivery service typical of most residential propane service. Over the years
there have been numerous Florida propane distribution systems that have lost significant numbers of customers to electricity conversions. AGDF proposes that the Propane Distribution System Conversion Program authorize conversion allowances for consumers in communities where existing propane distribution systems are converted to natural gas.
29. The conversion of customers on existing propane distribution systems to natural gas is also consistent with the intent of FEECA. The conversion of such consumers to natural gas would, in AGDF's view, greatly decrease the probability that the existing propane gas appliances operated by those consumers are eventually converted to electricity. The rates, terms and service quality provided by AGDF member LDCs is regulated by the Commission and such oversight provides assurances of fair and equitable treatment that is important to many consumers. Historically, consumer costs for natural gas service have been lower than propane, as is demonstrated by the positive Participants Test results for the proposed program included in Attachment 2 to this petition. Finally, the retention of residential consumer appliances on gas is a key element in each LDC gas conservation program. The philosophy behind these programs is self evident conversion of a gas appliance to electricity is counter to the achievement of FEECA goals. The conservation retention incentives, along with the LDCs consumer education programs describing the energy and climate benefits of natural gas, help keep customers connected.
30. The conversion of consumer appliances from propane to natural gas is, in most cases, a relatively straightforward process. The majority of the propane gas
appliances on the market today are convertible to natural gas with a change out of the gas orifice (introduces gas to the burner). Many gas appliances are sold with conversion kits that enable the installer to select the applicable fuel type. Occasionally, a model cannot be converted and must be replaced. From time to time an appliance may require a vent change-out or other adjustment to meet current code requirements. For those projects in which the LDC plays a role in the initial installation of the propane system, the selection of interior piping, venting and appliance models can be influenced to assure a low cost conversion process. For example, the SummerGlenn development south of Ocala was converted from propane to natural gas in 2008 by FPUC. The development was approximately five years old and the propane distribution system had been installed by FPUC. The average cost of converting almost 1,500 appliances was less than $\$ 100$ per appliance. In an older development where certain appliances (usually the water heater) may need to be replaced the costs could be higher. The installation of a replacement natural gas water heater, assuming no piping or venting adjustments, would be approximately $\$ 600$. AGDF proposes to establish conversion allowance maximum amounts equal to the allowances in the existing uniform Residential Appliance Retention Program administered by each LDC. The Commission approved retention program allowance amounts for each approved natural gas appliance are as follows:

- Storage Water Heating $\$ 350$
- Tankless Water Heating $\$ 450$
- Heating $\$ 350$
- Clothes Drying $\$ 100$
- Cooking $\$ 100$

If approved by the Commission, the above allowance amounts would be adopted as the maximum payment for the conversion of a respective appliance under the Propane Distribution System Conversion Program. The LDC would pay actual consumer conversion costs up to the maximum allowance amount. For system conversions similar to the SummerGlenn project referenced above, allowance payments on average would be less than the maximum amounts. In the event a consumer was required to change-out an appliance, a higher allowance amount, up to the maximum by appliance, would be authorized. The allowance amounts proposed above would not be paid until the appliances are converted. AGDF proposes that the LDCs be allowed to incur and recover reasonable administrative and consumer education costs to notify homeowners of the conversion and provide information on allowance amounts and conversion procedures.
31. The Commission has previously approved a similar propane system conversion program for Chesapeake. Commission Order No. 98-1079-FOF-GU, issued August 10, 1998. The current Chesapeake program assumes that Chesapeake will construct the propane distribution system as a non-regulated investment and pay the approved allowance amounts at the time residences are constructed. The allowance payments are held on its balance sheet as a deferred asset until the system is converted and recovery of the payments is sought through ECCR. The proposed Propane Distribution System Conversion Program would be a new conservation program for all AGDF members except Chesapeake. AGDF is requesting that the Cornmission approve this program for all of its members, including Chesapeake. When approved, Chesapeake would modify its existing
program to conform to that approved by the Commission in this docket without a further filing.
32. The acquisition or transfer of assets of a propane distribution system owned by an affiliate or non-regulated operating division of the LDC would occur at net book value as indicated in the above referenced Commission Order on the current Chesapeake conversion program. At no time prior to the acquisition would the investment costs of the affiliate in the propane system be included in an LDC's rate base. In the event a propane system is purchased by an LDC from a non-affiliated party, the acquisition price would be dictated by market negotiation between the parties. A system acquisition would not occur unless the system price was reasonable and met the LDC's tariff extension of facilities policy or other financial feasibility determination.

## Cost Benefit Tests

33. AGDF has followed the Commission-approved cost effectiveness test methodologies (G-RIM Test and Participants Test) required by Rule 25-17.009, F.A.C., to determine the cost-benefit of the proposed Propane Distribution System Conversion Program. Attachment 2 is a composite document containing each AGDF LDCs G-RIM and Participants Tests for the Propane Distribution System Conversion Program. The tests demonstrate the cost benefit of the proposed programs. The program's G-RIM and Participants Tests results for the proposed cash allowances by appliance type exceed 1.0 (results above 1.0 are deemed to generate cost benefits).
34. Many of the data elements required to complete the G-RIM and Participants Tests were developed through a cooperative effort of members of AGDF's Energy Work Group. These data elements have been consistently used in the cost benefit tests for each AGDF LDC, as presented in Attachments 2 and 3 to this petition. The development and use of common data between utilities is not unusual. The Commission approved the uniform residential gas conservation programs filed separately by each LDC in 2006 and 2007 (see the Commission Orders listed in paragraph 11) which included common data used in the respective cost benefit tests filed by each LDC. The current consolidated docket (Docket Nos. 080407-EG through 080413-EG.) under which the Commission is reviewing electric utility numeric conservation goals is another example of the use of common data among a group of utilities. Based on comments presented at the Commission's November 3,2008 workshop, an electric utility collaborative is working on a jointly funded Technical Potential Study to be followed by economic and market reviews which are intended to produce data used by all electric utilities to develop both numeric goals and, ultimately, conservation programs to achieve the goals. Historically, the Commission has not required LDCs operating in multiple jurisdictions in the state to file multiple regional based conservation programs. The AGDF data used to produce the gas G-RIM and Participants Tests are representative of appliance costs, installation costs and energy usage information applicable on an average state-wide basis. In certain instances, heating system equipment and installation costs for example, data was developed using the Orlando market to represent typical or average cost data.
35. The annual natural gas therm usage data for storage water heating, heating, cooking and clothes drying used in the respective cost benefit tests is based on data developed by Peoples Gas. Usage data for gas tankless water heaters was obtained from manufacturers. In 1995, Peoples Gas 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. To date, the Peoples Gas study is the only sub-metered gas appliance usage study conducted in Florida. The study collected data for natural gas appliances in over 300 Peoples Gas customer residences. The residences were selected in the north, central and south regions of the state. Actual consumption data was collected for over a year. Propane gas usage data for each appliance type was calculated based on the respective appliance's natural gas usage adjusted for the thermal differences between the fuels. Propane gas was assumed to have a heat content of 91,600 Btus per gallon, natural gas 100,000 Btus per therm.
36. The AGDF Energy Work Group determined that the most reliable appliance cost data could 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 FPUC's retail appliance operation. 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). Appliances are readily available from both sources fueled by
either natural gas or propane. In many cases a conversion kit is provided with the unit that enables the installer to modify a natural gas unit to propane or the reverse. In most cases, there is no price difference between natural gas and propane gas models. For the purposes of the G-RIM and Participants Tests included in this filing, AGDF assumed that natural gas and propane gas appliances could be purchased at the same price. 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 the AGDF's view, the retail Home Depot and/or Lowes prices provide a reasonable price point for inclusion in the G-RIM and Participants Tests. For heating systems, equipment costs were obtained from the " 2009 R.S. Means Residential Construction Cost Data, 28th Annual Edition", construction cost estimating guide. The R.S. Means guide is a nationally recognized construction cost estimator.
37. 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 frequently occurs when conducting such surveys, there was significant variation in the price points for installation, in those cases where the contractors were willing to share cost data. FPUC's retail appliance sales business unit had undertaken a recent competitive bid process to retain third party contractors to install appliances sold through their retail business. The FPUC contractor installation pricing for their central Florida operating division was selected for
water heating, cooking and clothes drying installations. Heating system installation costs were obtained from the R.S. Means construction cost estimating guide referenced above. AGDF assumed no installation cost differences between natural gas and propane appliances.
38. The inflation rates used to escalate Operation and Maintenance expenses, fuel costs and retail appliance installation costs over the twenty-year evaluation period included in the G-RIM and Participants Test models is based on the January 2009, Blue Chip Financial quarterly CPI forecast for 2009 - (Q1 -1.3\%; Q2-1.2\%; Q3-2.0\%; Q4-1.9\%). The annual average CPI forecast for 2009 is .95\%.
39. The service life of gas appliances was established as follows:

- Storage tank water heating: 10 years
- Tankless water heating: 20 years
- Heating: 18 years
- Clothes dryer: 13 years
- Cooking: 15 years

Service life is used in the Participants Test model to indicate the year in which replacement appliance costs will be incurred by consumers as well as a retention allowance payment by the LDC under its approved Residential Appliance Retention Program. The source of appliance service life data is the National Association of Homebuilders Study of Life Expectancy of Home Components, February 2008. AGDF assumed no difference in the service life of natural gas and propane gas appliances.
40. The Participants Test model requires a cost input for appliance maintenance. Obtaining reliable residential appliance maintenance costs is problematic. Some
data is available from manufacturers, but it is inconsistent and largely based on marketing materials. ADGF has followed the same practice employed during the LDC uniform residential conservation program filings in 2006 and 2007, and assumed the purchase of a residential appliance warranty. The price for such a warranty has been assumed at $\$ 37.50$ per month ( $\$ 450$ per year). Several companies offer residential appliance warranties at comparable pricing in Florida. An allocation of the annual cost by appliance resulted in $\$ 270$ for the heating system and $\$ 60$ for each of water heater, dryer and range (cook top and oven).
41. The costs for gas main installations were jointly developed by the AGDF Energy Work Group based on average cost data for recent installations. The cost for the installation of $2^{n}$ plastic main (standard for each AGDF LDC in residential development projects) is assumed to $\$ 6.50$ per linear foot of main. A typical Florida residential building lot is assumed to be 75 feet in width ( $\$ 6.50 \times 75=$ $\$ 487.50$ ). The main installation cost was rounded up to $\$ 500$ per customer.
42. Residential propane fuel costs were based on the January 2009 Oil Price Information Service (OPIS) monthly average price of $\$ 0.726$ per gallon at the Mont Belvieu hub. The total retail price includes a $\$ 0.20$ per gallon average delivery from Mont Belveiu to Tampa, an additional $\$ 0.07$ per gallon local delivery to an end-user and a margin of $\$ 1.55$ per gallon. No monthly customer charge has been assumed, although such fees are not uncommon for customers served by an underground propane distribution system. Total retail price for residential propane service is assumed to be $\$ 2.55$ per gallon.
43. The average tax rate for residential natural gas utility customers was assumed to be $10 \%$. The average tax rate for propane gas customers was assumed to $7.5 \%$.

The utility customers pay Florida gross receipts tax whereas propane customers do not.
44. The cost of electricity was developed from a weighted average of the residential rates, including fuel adjustment rates, in place at January 2009 for the four largest Florida investor-owned Commission-regulated electric utilities.
45. There are several data elements required in the G-RIM and Participants Test models that are appropriately applicable solely to individual LDCs. They are as follows:

- Each LDCs base rates (Customer Charge and Energy or Transportation Charge) for residential service were used to calculate non-fuel natural gas delivery charges. For those LDCs with multiple rate classes applicable to residential service, the class that most closely represents the "typical" full load customer (approximately 400 therms per year) was selected.
- The natural gas fuel cost (commodity and interstate delivery) used in the G-RIM and Participants Tests is based on each LDCs Purchased Gas Adjustment (PGA) billing rate for February 2009. For those unbundled LDCs that no longer participate in the Commission's PGA proceeding, the respective third party marketer February 2009 fuel price was used.
- Each LDCs residential (or the applicable rate class identified above) ECCR billing factors were included in the tests.
- An energy conservation program administration cost was calculated for each LDC. An allocation methodology was applied to assign program administrative expenses other than cash allowances, including common and advertising expenses, to the appliance types for which allowances are
offered in the proposed propane system conversion program. LDC conservation expenses forecast for 2009 and approved by the Commission in Docket 080004-GU were used in the allocation process. The methodology allocates total program administration expenses by appliance type based on the relative annual therm consumption estimated for each appliance. Given that there is no historic data on administrative costs related to a propane system conversion program, for the purposes of this analysis AGDF updated and applied the cost allocations for the respective LDCs Residential Appliance Retention Program.
- An incremental O\&M and administrative cost to add a customer was calculated for each LDC using a methodology similar to that accepted by the Commission in the uniform residential program filings in 2006 and 2007. The cost of service study from each LDCs most recent rate proceeding order (or filing for Peoples Gas and FPUC) was used to derive a ratio of residential O\&M costs to total O\&M costs. Actual total expense data for FERC 800 Distribution Expense accounts and 900 level accounts was compiled from Each LDCs 2007 FERC Form 2. The total expenses by account were adjusted by the ratio of residential to total O\&M expenses described above. The residential expense allocation was further adjusted to remove expenses that were not trended for growth as reflected in MFR Schedule G-2 in the LDCs most recent rate proceeding. The FERC 800 level expenses were used for the incremental cost of new customer O\&M and the FERC 900 level expenses were used for incremental cost of new customer administration.
- The investment cost related to the installation of a residential service line, meter and regulator was based on data received from each LDC. The AGDF Work Group requested that each LDC update the MFR Schedule E-7 from its most recent rate proceeding. For Peoples Gas, FPUC and St. Joe, the data is as filed in their active or recently completed rate cases.
- The cost of capital used in the G-RIM test was based on each LDCs midpoint Required Rate of Return Average Capital Structure (FPSC Adjusted Basis) as reported in the LDCs most recent Earnings Surveillance Report to the Commission.
- The depreciation rates used in the G-RIM test are the applicable rates for plastic main, plastic service lines and meters from the LDCs most recent Commission approved Depreciation Study.


## CONCLUSION

46. The gas conservation programs proposed by AGDF in this petition meet the Commission's historic tests for evaluating such programs. In Order No. 22176, issued November 14, 1989 in Docket No. 890737-PU, In re: Implementation of Section $366.80-85$, F.S., Conservation Activities of Electric and Natural Gas Utilities, the Commission stated that conservation programs will be evaluated using the following criteria:

- Whether the program advances the policy objectives of Rule 25-17.001, Florida Administrative Code, and Sections 366.80 through 366.85 , Florida Statutes, also known as the "Florida Energy Efficiency and Conservation Act" (FEECA);
- Whether the program is directly monitorable and yields measurable results; and
- Whether the program is cost-effective.

AGDF, on behalf of its member LDCs, has demonstrated that each of the proposed programs meets the above criteria and is worthy of Commission approval.
47. The adoption of the conservation programs described above would not affect the 2009 Energy Conservation Cost Recovery (ECCR) factors authorized by the Commission for each LDC in Docket 080004, Commission Order No. PSC-08-0785-FOF-GU, issued December 1, 2008. No AGDF LDC is requesting adjustments to its 2009 factors. Any additional expense resulting from approval of the proposed programs by the Commission would be addressed in the filing to establish ECCR factors for 2010.

WHEREFORE, the Associated Gas Distributors of Florida respectfully requests that the Commission enter its order granting this petition and the LDC energy conservation programs hereinabove described within ninety (90) days of the filing date of this petition. Respectfully submitted,


Attorneys for Associated Gas Distributors of Florida

## Attachment 1

## Associated Gas Distributors of Florida (AGDF)

 Petition for Approval of Energy Conservation Program Modifications March 2009
## Energy Conservation Program Descriptions for

Florida Investor-Owned Natural Gas Local Distribution Companies (LDCs)

# Energy Conservation Program Descriptions for <br> Florida Investor-Owned Natural Gas Local Distribution Companies (LDCs) 

The following document provides a i) brief overview of the adoption of uniform or standardized residential conservation programs for all investor owned LDCs, ii) a description, by LDC, of additional approved conservation programs, and iii) a matrix summarizing each program and its related allowance amounts.

## Development of Uniform Residential Programs

Each of the state's seven regulated natural gas Local Distribution Companies (LDCs) currently operate Commission approved conservation programs and participate in the Energy Conservation Cost Recovery process as provided in Commission Rule $25-17.015$, F.A.C. The investor-owned gas utilities are Florida City Gas (City Gas), Florida Division of Chesapeake Utilities Company (Chesapeake), Florida Public Utilities Company (FPUC), Indiantown Gas Company (Indiantown), Peoples Gas System (Peoples Gas), Sebring Gas System (Sebring) and St. Joe Natural Gas Company (St. Joe). All of the above LDCs offer conservation programs aimed at both the residential new construction and existing residential consumer markets. Certain LDCs also offer conservation programs aimed at the commercial and industrial markets.

Over the past two years, each investor-owned LDC petitioned for and received Commission approval to modify existing residential conservation programs, or in the case of Indiantown and Sebring, adopt new programs. As a result, each LDC's primary residential programs have identical allowance amounts and administrative procedures. The development of uniform gas conservation programs was achieved through a cooperative effort among the member utilities of the Associated Gas Distributors of Florida ("AGDF"), a trade association representing all of the investor-owned LDCs operating in Florida. AGDF members jointly participated in compiling common appliance cost, appliance installation cost and energy usage data required to complete the RIM and Participants Tests for each residential program. Each LDC utilized its individual facility and service costs, fuel recovery charge and base rates in the cost effectiveness tests.

The primary objective in developing consistent residential conservation program designs across all LDCs was to increase participation in the programs, especially the new construction program. Prior to the adoption of the current consistent allowance amounts and program requirements, each LDC program operated under different parameters. Homebuilders constructing residences in multiple LDC territories were frequeritly confused by inconsistent procedures. Variability in the allowance amounts between LDCs created problems for homebuilders evaluating the economics of a fuel choice. For most of the LDCs the appliance allowance amounts approved by the Commission for each residential program represented increases in their existing allowances. Each LDC also adopted a new allowance for gas tankless water heaters
which have DOE rated efficiency levels approximately $30 \%$ greater than storage water heaters. The development of uniform residential programs also enabled the gas industry to deliver a more powerful, and cost-effective, message through its conservation related consumer education programs.

The current uniform LDC residential energy conservation programs were approved by the Commission in the Orders listed below.

LDC<br>City Gas<br>Chesapeake<br>FPUC<br>Indiantown<br>Peoples Gas<br>Sebring<br>St. Joe

Order No.
PSC-07-0122-PAA-EG
PSC-07-0197-PAA-EG
PSC-06-0749-PAA-GU
PSC-07-0531-TRF-EG
PSC-06-0816-PAA-EG
PSC-07-0693-TRF-EG
PSC-07-0495-PAA-EG

## Issuance Date

February 12, 2007
March 5, 2007
September 5, 2006
July 20, 2007
October 10, 2006
August 24, 2007
June 11, 2007

## Uniform Residential Natural Gas Conservation Programs

Each of Florida's investor-owned natural gas LDCs offers the following three residential energy conservation programs.

## 1. Residential New Construction Program.

The new home program provides cash allowances to developers, builders or consumers constructing single, manufactured or multi-family residences which include certain natural gas appliances. Allowances are paid upon service activation in the amounts listed below for the installation of the applicable appliances. The program allowances are designed to assist in defraying the cost of interior gas piping, venting, appliance installation and other costs associated with residential gas service. The overall cost benefit of selecting natural gas is positive for consumers. However, homebuilders are generally more influenced by initial construction costs than they are with a homeowner's long-term operating and maintenance costs. 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, cleanburning natural gas appliances will be provided to Florida homeowners. All appliance installations must meet the minimum efficiency standards prescribed by the Florida Energy Code or the Department of Energy in 10 CFR Part 430, Energy and Water Conservation Standards and Effective Dates.

## Residential New Construction Program Cash Allowances

Gas Storage Tank Water Heating ..... \$350
Gas Tankless Water Heating ..... \$450
Gas Heating ..... $\$ 350$
Gas Cooking ..... $\$ 100$
Gas Clothes Drying ..... \$100

## 2. Residential Appliance Replacement Program.

The appliance replacement program is designed to target the replacement of existing residential electric appliances with natural gas appliances. Allowances are paid to homeowners in the amounts listed below for the installation of the applicable appliances. The allowances help homeowners cover the conversion costs associated with piping, venting and purchasing natural gas appliances. All gas appliances installed under the replacement program must meet the minimum efficiency standards established by the Department of Energy.

## Residential Appliance Replacement Program Cash Allowances

Gas Storage Tarık Water Heating ..... \$525
Gas Tankless Water Heating ..... \$525
Gas Heating ..... \$625
Gas Cooking ..... \$100
Gas Clothes Drying ..... \$100

## 3. Residential Appliance Retention Program.

The appliance retention program is designed to encourage homeowners with existing natural gas appliances to retain natural gas when the existing appliances fail, or are otherwise replaced. Providing incentives for the retention of gas appliances in existing homes helps avoid the electric demand increases that would occur if the gas appliance is converted to electricity. The retention allowances also help the LDC 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 $\$ 350$ to $\$ 500$. The retention program provides cash allowances in the amounts listed below to existing residential gas customers who replace old or inoperable gas appliances with new energy efficient gas appliances. All gas appliances installed under the replacement program must meet the minimum efficiency standards established by the Department of Energy.

## Residential Appliance Retention Program Cash Allowances

Gas Storage Tank Water Heating ..... $\$ 525$
Gas Tankless Water Heating ..... \$525
Gas Heating ..... $\$ 625$
Gas Cooking ..... \$100
Gas Clothes Drying ..... $\$ 100$

## Additional Natural Gas Energy Conservation Programs

## A. Florida City Gas

1. Gas Appliances in Schools: The program is designed to provide gas appliances in schools and offer teaching assistance on energy conservation, gas use and safety in Home Economics Departments through a Company employed home economist.
2. Residential Propane Conversion Program: The program provides cash incentives to homeowners converting existing propane appliances to natural gas. The incentives listed below are designed to defray the homeowner's conversion costs.

## Residential Propane Conversion Cash Allowances

Gas Water Heating $\$ 200$

Gas Heating \$100
Gas Clothes Drying \$50
Gas Cooking \$25
3. Residential Cut and Cap Program: This program is intended to reactivate inactive services by providing a $\$ 200$ cash incentive to homeowners in existing residences that have discontinued gas service. The allowances are paid in addition to the Residential Appliance Replacement Program allowances described above. This program is intended to encourage gas service reactivation prior to the expiration of a 5 -year inactive service time period where, by Commission Rule, the service line must be cut and capped.
4. Commercial/Industrial Conversion Program: This program offers cash allowances to convert non-residential, non-natural gas appliances and equipment to natural gas. The allowance is designed to assist in covering the initial cost of gas piping, venting and equipment. Allowances are paid based on the rated Btu input of the installed gas appliance or equipment at a rate of $\$ 75$ per 100,000 Btu.
5. Commercial/Industrial Alternative Technology Incentive Program: The program is designed to encourage the installation of alternative gas technologies such as natural gas cooling, desiccant dehumidification, gas engine installation (water pumping, for example) cogeneration and other technologies that displace non-natural gas fuels. The program includes a cash allowance based on a life cycle cost analysis of an individual project. The allowance is limited to three (3) times the annual Florida City Gas margin produced by the project.

## B. Florida Division of Chesapeake Utilities Corporation

1. Residential Propane Distribution Program: This program is intended to promote the use of gas in residential developments that are beyond the economic extension of the LDC. An underground propane distribution system, designed to natural gas standards, is constructed to "hold" the homes on gas until such time as the natural gas system can be economically extended and the residences converted from propane to natural gas. The following incentives are available to encourage the installation of propane appliances in the new homes.

## Residential Propane Distribution Cash Allowances

Gas Water Heating ..... \$275
Gas Heating ..... \$275
Gas Cooking and Drying ..... \$75
2. Residential Natural Gas Space Conditioning Program: The program provides a \$1,200 cash allowance to developers, builders or homeowners installing gas cooling or desiccant dehumidification equipment in residential buildings.
3. Commercial Gas Space Conditioning Program: An allowance of $\$ 50$ per ton of natural gas space conditioning up to a maximum of 500 tons is offered to non-residential building owners to encourage the installation of gas equipment.
4. Conservation Education Program: Several community and business outreach initiatives designed to provide information on energy conservation and natural gas are provided through this program.

## C. Florida Public Utilities Company

1. Residential Service Reactivation Program: This program is intended to reactivate inactive services by providing a $\$ 350$ cash incentive to homeowners in existing residences that have discontinued gas service. The installation of a gas water heater is required. The allowances are paid
in addition to the Residential Appliance Replacement Program allowances described above. This program is intended to encourage gas service reactivation prior to the expiration of a 5 -year inactive service time period where, by Commission Rule, the service line must be cut and capped.
2. Residential Conservation Service Program: The Company offers home energy surveys to identify conservation opportunities and provides information to homeowners on various strategies to save energy.
3. Space Conditioning Program: This program is designed to encourage the conversion of on-main electric space conditioning equipment to natural gas space conditioning equipment. Residences are eligible for a $\$ 1,200$ cash allowance. Commercial installations are eligible for an allowance of $\$ 50$ per ton.
4. Commercial Conservation Program: The Company offers commercial energy surveys to identify conservation opportunities and provides information to business owners on various strategies to save energy.
5. Conservation Education Program: Several community and business outreach initiatives designed to provide information on energy conservation and natural gas are provided through this program.

## D. Indiantown Gas Company

Indiantown's initial conservation program was approved by the Commission in July, 2007. At present, Indiantown only offers the three uniform residential programs adopted for all Florida investor-owned LDCs described above.

## E. Peoples Gas System

1. Residential Appliance Replacement Program: In addition to the appliances included in the uniform Residential Appliance Replacement Program described above, Peoples Gas also offers a $\$ 65$ cash allowance for the conversion of electric space heaters to natural gas.
2. Commercial Electric Replacement Program: The program provides cash allowances of $\$ 40$ per KW to building owners or authorized lessee's for the replacement of existing commercial electric resistance appliances or equipment with comparable natural gas units. Typical conversions would include commercial water heating systems, ranges, ovens, fryers and clothes drying equipment.
3. Gas Space Conditioning Program: This program is designed to convert on-main customers from electric space conditioning equipment to efficient
natural gas equipment. A cash allowance of $\$ 150$ per ton up to a maximum of 500 tons is available for each customer conversion.
4. Small Package Cogeneration Program: A cash allowance equal to $\$ 150$ per KW, up to a 150 KW maximum, to building owners installing package cogeneration systems. The program also includes a contribution of up to $\$ 5,000$ to evaluate the technical and economic potential of such installations.
5. Oil Heat Replacement Program: This program is designed to encourage replacement of existing oil furnaces with efficient natural gas heating systems. A primary goal of the program is to prevent building owners from converting oil heating systems to electricity, especially electric strip heat, to the detriment of FEECA objectives. A cash allowance of $\$ 330$ is offered to defray the expense of gas piping and venting.
6. Research, Development and Program Monitoring: This program authorizes Peoples Gas to fund projects that pursue research, development and demonstration of appliance, equipment and conservation techniques that promote energy efficiency and conservation. The program also includes monitoring the effectiveness of existing conservation programs. The program's intent is to develop knowledge that leads to new or modified conservation programs. In 2008, Peoples Gas began work on two R\&D projects; a technical study of resideritial and commercial desiccant dehumidification technologies and a study and pilot program to evaluate the installation of residential thermal solar water heating systems with gas tankless water heating backup.

## F. Sebring Gas System

Sebring's initial conservation program was approved by the Commission in Augsut, 2007. At present, Sebring only offers the three uniform residential programs adopted for all Florida investor-owned LDCs described above.

## G. St. Joe Natural Gas Company

1. Residential Gas Air Conditioning: In addition to the appliances included in the uniform residential new construction, appliance replacement and appliance retention programs described above, St. Joe also offers a $\$ 1,400$ cash allowance for the installation of natural gas cooling or desiccant dehumidification equipment in new residential buildings and a $\$ 1,500$ allowance in existing residences.

## Florida LDC Energy Conservation Programs Authorized Allowances

Mar-09

| Program | FCG | CFG | FPUC | PGS | IGC | SGS | SJNG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RES New Construction <br> Storage WH <br> Tankless WH <br> Furance <br> Clathes Dryer <br> Cooking | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ |
| ```RES Appliance Replacement Storage WH Tankless WH Heating Clothes Dryer Cooking Space Heating``` | $\begin{aligned} & \$ 525 \\ & \$ 525 \\ & \$ 625 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 525 \\ & \$ 525 \\ & \$ 625 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 525 \\ & \$ 525 \\ & \$ 625 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{gathered} \$ 525 \\ \$ 525 \\ \$ 625 \\ \$ 100 \\ \$ 100 \\ \$ 65 \end{gathered}$ | $\begin{aligned} & \$ 525 \\ & \$ 525 \\ & \$ 625 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 525 \\ & \$ 525 \\ & \$ 625 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 525 \\ & \$ 525 \\ & \$ 625 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ |
| ```RES Appliance Retention Storage WH Tankless WH Heating Clothes Dryer Cooking``` | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ | $\begin{aligned} & \$ 350 \\ & \$ 450 \\ & \$ 350 \\ & \$ 100 \\ & \$ 100 \end{aligned}$ |
| RES Gas Air Conditioning <br> New Construction Replacement <br> Retention |  | $\begin{aligned} & \$ 1,200 \\ & \$ 1,200 \\ & \$ 1,200 \end{aligned}$ | \$1,200 | \$150/ton ( 100 ton max) |  |  | $\begin{aligned} & \$ 1,400 \\ & \$ 1,500 \\ & \$ 1,500 \end{aligned}$ |
| RES Propane "Distribution" <br> Water Heating <br> Fumace <br> Range/Dryer Stub-out |  | $\begin{gathered} \$ 275 \\ \$ 275 \\ \$ 75 \end{gathered}$ |  |  |  |  |  |
| RES Propane "Conversion" <br> Furance <br> Water Heating <br> Range <br> Dryer | $\begin{gathered} \$ 200 \\ \$ 100 \\ \$ 50 \\ \$ 25 \end{gathered}$ |  |  |  |  |  |  |
| RES Service Reactivation | \$200 |  | $\begin{gathered} \$ 350 \\ \text { (requires } W H \text { ) } \end{gathered}$ |  |  |  |  |
| RES Gas School Program (home economist) | yes |  |  |  |  |  |  |
| RES Energy Audits | yes |  | yes |  |  |  |  |
| COM Elec Res Appliance Repl |  |  |  | \$40/KW ( 100 KW max) |  |  |  |
| COM Non-Gas to Gas Conversion | $\begin{gathered} \$ 75 \\ \text { (per } 100 \mathrm{~K} \mathrm{Btu} \text { ) } \end{gathered}$ |  |  |  |  |  |  |
| COM Gas Air Conditioning |  | $\$ 50 /$ ton $(500$ ton max$)$ |  | $\$ 150 /$ ton $(100$ ton max $)$ |  |  |  |
| Small Package Cogeneration |  |  |  | $\begin{gathered} \$ 5000 \text { study } \\ \$ 150 \mathrm{KW} \\ (150 \mathrm{KW} \text { max) } \end{gathered}$ |  |  |  |
| COM Alternative Tech Incentive | LCC 3 yr payback (max $3 \times$ margin $)$ |  |  |  |  |  |  |
| COM Energy Audits | yes |  | yes |  |  |  |  |
| EC Program Monitoring and R\&D |  |  |  | yes no specified limits |  |  |  |

# Attachment 2 <br> Associated Gas Distributors of Florida Energy Conservation Program Petition Residential Propane Distribution System Conversion Program March, 2009 

Company Attachment
Florida Division of Chesapeake Utilities Corporation ..... 2.1
Florida City Gas ..... 2.2
Florida Public Utilities Company ..... 2.3
Indiantown Gas Company ..... 2.4
Peoples Gas System ..... 2.5
Sebring Gas System ..... 2.6
St. Joe Natural Gas Company ..... 2.7

## Attachment 2.1

## Associated Gas Distributors of Florida <br> Energy Conservation Program Petition Residential Propane Distribution System Conversion Program March, 2009

Florida Division of Chesapeake Utilities Corporation Rate Impact Measurement Test

Participants Test
Summary of RIM Test and Participants Test Results

|  | Proposed Allowance | Participants Test | RIM Test |
| :---: | :---: | :---: | :---: |
| Gas Storage Tank Water Heating | \$350 | 1.33 | 1.16 |
| Gas Tankless Water Heating | \$450 | 1.29 | 1.11 |
| Gas Heating | \$350 | 1.21 | 1.19 |
| Gas Clothes Drying | \$100 | 1.24 | 1.17 |
| Gas Cooking | \$100 | 1.23 | 1.16 |

## Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

## Appliance Type Storage Tank Water Heating

|  | $\qquad$ | Incremental Revenue Cost of Gas | Incremental Revenue Cust. Charge | Total Gas <br> Revenue | Gas <br> Supply <br> Cost | Investment Carrying Costs | Incremental Customer Costs | Program Cost | Total 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 |
| 2009 | \$89 | \$173 | \$69 | \$332 | \$173 | \$38 | \$18 | \$362.39 | \$592 |
| 2010 | \$89 | \$175 | \$69 | \$333 | \$175 | \$37 | \$19 | \$12.39 | \$243 |
| 2011 | \$89 | \$177 | \$69 | \$335 | \$177 | \$36 | \$19 | \$12.39 | \$244 |
| 2012 | \$89 | \$179 | \$69 | \$337 | \$179 | \$34 | \$19 | \$12.39 | \$244 |
| 2013 | \$88 | \$180 | \$69 | \$339 | \$180 | \$33 | \$19 | \$12.39 | \$245 |
| 2014 | \$89 | \$182 | \$69 | \$340 | \$182 | \$32 | \$19 | \$12.39 | \$246 |
| 2015 | \$89 | \$184 | \$69 | \$342 | \$184 | \$31 | \$20 | \$12.39 | \$247 |
| 2016 | \$89 | \$186 | \$69 | \$344 | \$186 | \$30 | \$20 | \$12.39 | \$248 |
| 2017 | \$89 | \$188 | \$69 | \$346 | \$188 | \$29 | \$20 | \$12.39 | \$249 |
| 2018 | \$89 | \$190 | \$69 | \$348 | \$190 | \$28 | \$20 | \$362.39 | \$600 |
| 2019 | \$89 | \$192 | \$69 | \$350 | \$192 | \$27 | \$20 | \$12.39 | \$251 |
| 2020 | \$89 | \$193 | \$69 | \$352 | \$193 | \$26 | \$21 | \$12.39 | \$252 |
| 2021 | \$89 | \$195 | \$69 | \$354 | \$195 | \$25 | \$21 | \$12.39 | \$253 |
| 2022 | \$89 | \$197 | \$69 | \$356 | \$187 | \$24 | \$21 | \$12.39 | \$255 |
| 2023 | \$89 | \$199 | \$69 | \$358 | \$199 | \$23 | \$21 | \$12.39 | \$256 |
| 2024 | \$89 | \$201 | \$69 | \$360 | \$201 | \$22 | \$21 | \$12.39 | \$257 |
| 2025 | \$89 | \$203 | \$69 | \$362 | \$203 | \$22 | \$22 | \$12.39 | \$259 |
| 2026 | \$89 | \$205 | \$69 | \$364 | \$205 | \$21 | \$22 | \$12.39 | \$260 |
| 2027 | \$89 | \$207 | \$69 | \$366 | \$207 | \$20 | \$22 | \$12.39 | \$262 |
| 2028 | \$89 | \$209 | \$69 | \$368 | \$209 | \$19 | \$22 | \$12.39 | \$264 |
| Present Value of Benefits |  |  |  |  | Prasent Value of Costs |  |  |  |  |
|  |  |  |  | \$3,382 |  |  |  |  | \$2,928 |
|  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.16 |


\section*{| Appliance Type |
| :---: |
| Storage Tank Water Heating |}



| Investment Carrying Conts |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | ${ }^{3}$ | 4 |  |  | 7 | 8 | 8 Pr |
|  | Sump | Dextapmeot | sarice |  | Teas | cost | Rate af Trems | nvesament |
| Yeat | Main | Man | 4no | Nate | mestran | 95063 |  | dryg cost |
| 2 cab | \$107\% | \$500 | 1537 | si80 | \$1,350 | 7.37\% | 3837\% | ${ }^{33}$ |
| 2000 | 597 | \$464 | S40 | \$173 | 51.353 | $7.37 \%$ | 38.77\% | 33 |
| 2091 | So4 | 5668 | *s20 | 5185 | 51,257 | $7.37 \%$ | 3837\% | ${ }^{538}$ |
| 2012 | $5{ }^{51}$ | 3433 | 3510 | S15t | 81,213 | 7.37\% | $33.37^{7 \%}$ | ${ }^{58}$ |
| 2013 | stat | \$438 | 8492 | \$153 | 51,17 | 737\% | ${ }^{31,38 \%}$ | ${ }_{33}$ |
| 22014 | s85 | \$424 | \$484 | 5147 | 51,380 | 73\%\% | 34339\% | 332 |
| 2045 | \$82 | 59,00 | \% 4 S | 5744 | 81,080 | 7.87\% | 38.3\%\% | 53 |
| 206 | 378 | 5396 |  | 5135 | S1,051 | $7.33 \%$ | 3639\% | 539 |
| 2017 | 878 | \$383 | \$82,5 | 5130 | S1,094 | 7.37\% | з837\% | 58 |
| 2019 | 873 | 5330 | \$410 | \$125 | \$978 | 733\% | 36,37\% | ${ }_{523}$ |
| 2018 | * | s.ssp | ${ }^{33} 85$ | 5420 | 504 | 7.37\% | 38.37\% | 527 |
| 2220 | sss | 5346 | 5381 | 3145 | Se4 | 7.37\% | 33,37\% | 82 |
| 2021 | sb? | 5835 | \$367 | \$170 | 8879 | $7.37 \%$ | 3837\% | 825 |
| 2382 | \$95 | 5324 | 8354 | 5108 | ssas | 733\%\% | 33.37\% | 324 |
| ${ }^{2023}$ | ${ }_{86} 8$ | ${ }_{5313}$ | 534 | s102 | 5819 | 7.37\% | 3, 337\% | ${ }_{3} 3$ |
| 2024 | s61 | :303 | 5386 | 55 | 579 | 7.37\% | 36,3\%\% | 322 |
| 2025 | ${ }_{\text {s }}^{\text {s }}$ | 523 | 8317 | ses | 578 | 7.37\% | ${ }^{23,375}$ | 522 |
| ${ }^{2024}$ | 557 | 8283 | 5308 | 580 | 8736 | 73\%\% | 3837\% | 32i |
| $\underset{\substack{2027 \\ 2027}}{\substack{20 \\ \hline}}$ | ${ }_{5}^{556}$ | (\%274 | (\$285 | ${ }_{36} 8$ | ( $\begin{array}{r}5710 \\ 8685\end{array}$ | ${ }_{\text {c }}^{3}$ |  | ${ }_{519}^{580}$ |


| inctemmat Customer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 2010 | S3.18 | s\% | ${ }^{383} 3$ | 5 | ${ }^{88.982}$ |  |  | ${ }^{318}$ |
| 2014 | *3.34 | 538 | 33.3\%\% | ${ }_{514.97}$ | 5:0.12 | 3\%37\% | ${ }_{54}$ | ${ }_{819}$ |
| 2012 | 5328 | s39 | 39,37\% | \$14.87 | 510.22 | 33.37\% | sa | 819 |
| 2013 | 83,3\% | 540 | 33.3\%\% | \$15.35 | \$10.32 | 383\%\% | 54 | \$19 |
| 2014 | 53.34 | sto | 39.37\% | \$15,35 | \$0,43 | 3637\% | : | 518 |
| 2015 | 53.38 | 541 | 39.37\% | ${ }^{155.73}$ | 510.53 | 33.37\% | $s$ | 520 |
| 2016 | 53.1 | 541 | 30.37\% | ${ }^{5155.73}$ | 510.64 | 3, $3.38 \%$ | sa | 520 |
| 2017 | \$3,44 | 541 | 33.37\% | 8:56.73 | 510.74 | 38.37\% | 54 | 529 |
| 2018 | ${ }^{3348}$ | \$42 | 36.35\% | \$16.12 | \$10.Es | 3.374\% | 54 | 528 |
| ${ }^{2014}$ |  | \$42 | 33.37\% | \$16.120 | \$10.06 | ${ }^{3,3.37 \%}$ | 54 | 528 |
| 2228 | ${ }^{33.55}$ | 43 | 38.37\% | \$10.50 | 31,07 | 363\%\% | 34 | 521 |
| ${ }^{2027}$ | ${ }^{53,58}$ | ${ }^{54}$ | 3937\%\% | \$15.50 | 514.18 | ${ }^{38,37 \%}$ | 34 | 521 |
| 2022 | 33.62 | 543 | 39.37\% | 518590 | 81.28 | 38.37\% | s | 521 |
| 2023 | *3,88 | ${ }^{\text {s/4 }}$ | 39,37\% | 81.8.86 | 51.140 | ${ }^{3637 \% \%}$ | 54 | 321 |
| 2024 | ${ }^{33} 38$ | ${ }^{5} 4$ | 34.37\% | ${ }^{16} 6.68$ | 511.58 | 38.37\% | ${ }^{34}$ | 521 |
| 2025 | 53.73 | 445 | $39.3 \% \%$ | \$17.27 | ${ }^{511.63}$ | 33.37\% | 54 | ${ }^{23}$ |
| 2282 |  | 2454 | 38.37\% | \$17.27 | :1,75 | 33.37\% | ${ }^{5}$ | sz |
| 2027 | 53.08 | \$96 | 33, 3 \% | ${ }^{817.58}$ | S 11.68 | 3837\% | 5 | 32 |
| 2028 | 53.84 | ${ }^{4} 5$ | 383\%\% | 517.55 | 31.95 | 3835\% | 35 | 82 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| : | ${ }^{2}$ | $\underline{3}$ | 23 |
|  | Therms | Gus sumpty | Gessmuy |
| 2088 | ${ }^{780}$ | 18203 | ${ }_{5173}$ |
| 2010 | \% | \$1,392 | 3175 |
| 2011 | 90 | \$1 20005 | 517 |
| 272 | 9 |  | 877 |
| 2 | ${ }^{770}$ | st.06, 4 | \%90 |
|  | 170 | \$1072 | 198 |
| 2015 | 770 | 8, exze | Ste |
| 2018 | \% | 5 | Sise |
| 207 | 170 | ${ }^{5}$ | \%ea |
| ${ }^{2018}$ | \% | 51.156 | \% |
| 219 | 170 | \%13\% | 91920 |
| ${ }^{2220}$ | 170 | \%,389 | 593 |
| 223 | \% | 1094 | 5198 |
| 2022 | \% | :1 +exs | 5197 |
| ${ }^{2023}$ | no | \$1, 1275 | \%198 |
| 2024 | ${ }^{170}$ | ${ }^{5111842}$ | 529 |
| 2023 | \% | 81.1860 | 5203 |
| 20x | ${ }^{170}$ | \$12380 | s2035 |
| ${ }^{2027}$ | 190 | ${ }^{512239}$ | 5207 |

## Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program <br> RIM Test - Results

| Appliance Type |
| :--- |
| Tankless Water Heating |


|  |  | Incremental <br> Revenue <br> Cost of Gas | Incremental Revenue Cust. Charge | Total <br> Gas <br> Revenue | Gas <br> Supply Cost | Investment Carrying Costs | Incremental Customer Costs | $\begin{gathered} \text { Program } \\ \text { Cost } \\ \hline \end{gathered}$ | Total 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 |
| 2009 | \$79 | \$153 | \$64 | \$295 | \$153 | \$35 | \$17 | \$462.39 | \$668 |
| 2010 | \$79 | \$155 | \$64 | \$297 | \$155 | \$34 | \$17 | \$12.39 | \$218 |
| 2011 | \$79 | \$156 | \$64 | \$299 | \$156 | \$33 | \$17 | \$12.39 | \$219 |
| 2012 | \$79 | \$158 | \$64 | \$300 | \$158 | \$32 | \$17 | \$12.39 | \$219 |
| 2013 | \$79 | \$159 | \$64 | \$302 | \$159 | \$31 | \$18 | \$12.39 | \$220 |
| 2014 | \$79 | \$161 | \$64 | \$303 | \$161 | \$30 | $\$ 18$ | \$12.39 | \$221 |
| 2015 | \$79 | \$162 | \$64 | \$305 | \$162 | \$28 | \$18 | \$12.39 | \$222 |
| 2016 | \$79 | \$164 | \$64 | \$307 | \$164 | \$27 | \$18 | \$12.39 | \$222 |
| 2017 | \$79 | \$166 | \$64 | \$308 | \$166 | \$27 | \$18 | \$12.39 | \$223 |
| 2018 | \$79 | \$167 | \$64 | \$310 | \$167 | \$26 | \$19 | \$12.39 | \$224 |
| 2019 | \$79 | \$169 | \$64 | \$312 | \$169 | \$25 | \$19 | \$12.39 | \$225 |
| 2020 | \$79 | \$171 | \$64 | \$313 | \$171 | \$24 | \$19 | \$12.39 | \$226 |
| 2021 | \$79 | \$172 | \$64 | \$315 | \$172 | \$23 | \$19 | \$12.39 | \$227 |
| 2022 | \$79 | \$174 | \$64 | \$317 | \$174 | \$22 | \$19 | \$12.39 | \$228 |
| 2023 | \$79 | \$176 | \$64 | \$318 | \$176 | \$21 | \$20 | \$12.39 | \$229 |
| 2024 | \$79 | \$178 | \$64 | \$320 | \$178 | \$21 | \$20 | \$12.39 | \$230 |
| 2025 | \$79 | \$179 | \$64 | \$322 | \$179 | \$20 | \$20 | \$12.39 | \$232 |
| 2026 | \$79 | \$181 | \$64 | \$324 | \$181 | \$19 | \$20 | \$12.39 | \$233 |
| 2027 | \$79 | \$183 | \$64 | \$326 | \$183 | \$19 | \$21 | \$12.39 | \$234 |
| 2028 | \$79 | \$185 | \$64 | \$327 | \$185 | \$18 | \$21 | \$462.39 | \$686 |
| Present Value of Benefits |  |  |  | \$3,013 | Present Value of Costs |  |  |  | \$2,703 |



Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
RIM Test - Results

| Appliance Type |
| :--- |
| Heating System |



| Fuel Rate Ematisar | 1.0\% | Eapmaximen Refe . Supply Main | 9,30\% |
| :---: | :---: | :---: | :---: |
| Gase Enmoy Crame Exalizor | \% | Desrecisionn Ratit- Developmant Mmint | 30\% |
| Guechistmer Crarge Escalilior | \% | cospecaman Ratie - Sen | 3.00\% |


| Revenue-Emergy Charge ${ }^{2 / 3}$ |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Yeat Thems Base Ratie Totachasye |  |  |  |
|  |  | ${ }^{80.5245}$ |  |
| 2046 | ${ }^{178}$ | ${ }^{50.5245}$ | ${ }^{883}$ |
| 2014 | 178 | \$ 50.5855 | ${ }^{883}$ |
| 2942 | ${ }^{178}$ | ${ }^{50.5245}$ | sas |
| 2013 | 178 | *505245 | ${ }^{893}$ |
| 2918 | ${ }^{178}$ | 5.5.3248 | ${ }_{89}$ |
| 2015 | ${ }^{776}$ | *50.5245 | ${ }^{393}$ |
| 206 | ${ }^{178}$ | \$0.3245 | 893 |
| 2017 | 798 | 50.5245 | ${ }^{93}$ |
| 209 | \% | 50.0245 | ${ }^{883}$ |
| 2078 | 48 | 50.5845 | ${ }^{883}$ |
| 2028 | 178 | 52.5245 | ${ }^{893}$ |
| 2023 | ${ }^{776}$ | 80.5245 | ${ }^{883}$ |
| 2322 | ${ }^{178}$ | ${ }^{50.582655}$ | s83 |
|  | \%8 | $5{ }^{5} 52.5$ | 3 |
| 2035 | ${ }_{\text {tr }}$ | 50.5245 | ${ }_{583}$ |
| 2226 | ${ }^{778}$ |  | 593 |
| 2027 | ${ }^{178}$ | S0.5245 | 83 |
| 2028 | 178 | s0.5245 | 59 |


|  |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | Revenue - Cost of Gas ${ }^{4}$ |  | $2 \cdot 3$ |
| $y_{\text {ex }}$ | Therms | $\mathrm{F}_{\text {we }} \mathrm{Pata}$ |  |
| 2008 | 978 | 5:0285 | 2 |
| 2010 | ${ }^{778}$ | 51.0322 | 5183 |
| 2041 | 73 | \$1,0465 | 5185 |
| 2012 | ${ }^{78}$ | \$1,0509 | 5187 |
| 2013 | 178 | \$1.0814 | 3t\% |
| 2014 | ${ }^{178}$ | 8.1.720 | s894 |
| 2045 | ${ }^{778}$ | \$1.0628 | \$193 |
| 2016 | ${ }^{178}$ | \$1.0036 | 5195 |
| 2017 | \%8 | \$1.1445 | \$187 |
| 2018 | ${ }^{178}$ | 51.156 | 199 |
| 2076 | 178 | \$1.1287 | 5201 |
| 2020 | 178 | 51.1380 | 5283 |
| 2024 | ${ }^{76}$ | *1.4994 | \$205 |
| 2022 | ${ }^{178}$ | \$1, \%eas | 897 |
| ${ }^{2023}$ | 178 | \$1.1725 | 5209 |
|  |  |  | 5211 |
| 2025 |  | \$1.1480 | 5275 |
| ${ }^{2036}$ | 178 | \$12.2090 | 328 |
| 2027 | 78 | 81.2 | 3219 |


| tmvestment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | ${ }^{8}$ | हाE |
|  | Supuly | Devolezerst | Serur |  | Totat | cosd | Rxtio of Thems | arestmend |
| ${ }^{\text {Yead }}$ | ${ }_{\text {Man }}$ | ${ }_{\text {kn }}^{\text {kich }}$ | ${ }_{\text {Line }}$ | ${ }_{\text {Mater }}^{180}$ | itrestiment | $\frac{1}{7,37 \%}$ | Consumed To Tote | $\frac{\text { aming cost }}{\mathbf{3 0}}$ |
| 2010 | ${ }^{567}$ | 5484 | 3549 | 5173 | 1303 | 7.37\% | 40.18\% | ${ }^{39}$ |
| 2011 | \$3 | 3469 | \$529 | \% 19 | \$1,257 | $737 \%$ | 20.183\% | 837 |
| 2012 | ${ }^{39}$ | 3443 | 5516 | \% 58 | 12,23 | 7.37\% | $40.88{ }^{3}$ | ${ }^{36} 8$ |
| 2013 | 58 | 3438 | 5418 | \% | \%ran |  |  |  |
| ${ }^{2014}$ | 885 | 8424 | 284 | \% | \$1,30 | 7.3\% | 40.80 | 533 |
| 2048 | 882 | 8410 | 385? | \$141 | N,080 | 7.3\% | 80.18\% | 532 |
| 2045 | ${ }^{378}$ | \$366 | S4: | 5139 | 31.15 | 7,3\% | 40.18\% | 834 |
| 204 | 876 | 5385 | S48 | \$130 | si,9,4 | -35\% | (4)88\% | 538 |
| 2018 | 573 | 530 | 4n9 | 8123 | 为 | 7,3\% | 80, | 58 |
| 2919 | \$7 | \$358 | 3395 | 3188 | - | 73\% | 40.188\% | 588 |
| 2020 | $8{ }^{\text {EF }}$ | 5346 | ${ }^{836 \%}$ | 8115 | 5914 | 7.37\% | 40.4\%\% | 527 |
| 2021 | 567 | ${ }^{5335}$ | ${ }^{5367}$ | 816 | 8ery | 737\% | 40.18\% | 526 |
| 2022 | 86 | 8324 | ${ }^{354} 4$ | 0 | 5849 | 7,37\% | 40.38\% | 5 |
| ${ }^{2023}$ | 803 | *313 | 3384 | 3102 | ${ }^{819}$ | 7378 | 50.19* | 32 |
| 2024 | ${ }^{664}$ | ${ }_{8303}$ | 8324 | ${ }^{668}$ | 7104 | ${ }^{73 / \%}$ | 40.8\%\% | ${ }^{23}$ |
| 2025 | ss8 | ${ }^{3789}$ | 5317 | 5 | s763 | 7.37\% | $40.18{ }^{3}$ | 23 |
| ${ }^{2028}$ | ${ }^{53}$ | s283 | ${ }^{3306}$ | 500 | ${ }^{3736}$ | 7.37\% | 40.18\% | 22 |
| 2082 | ${ }_{5} 5$ | (3274 | ${ }^{3289}$ | ${ }_{883}$ | ${ }^{3} 140$ | 7.37\% | 40.4.18\% | 2013 |


| incrementat Customer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | - $\square^{4}$ | 8.3.4 |  | - |  | $3 \times 8$ |
|  |  |  |  | Anmual Ratio | AnMizal |  <br> Total Cansumad |  |  |
| $Y_{\text {Yeax }}$ |  |  |  | $\frac{\text { Aitm. Cost }}{\$ 1527}$ | 08scast |  |  |  |
| 2010 | 50.21 | 539 | 40, $6 \%$ | 515.87 | 510.02 | 40.19\% | 54 | \$28 |
| 2011 | *3.24 | 539 |  | 515.67 | \$30 12 | 40.18\% | 34 | \$26 |
| 2012 | ${ }^{3} 328$ | 839 | 40.18\% | 515.57 | 810.22 | 40.19\% | 54 | 520 |
| 2013 | 53.31 | 850 | 60. $19 \%$ | \$16.07 | 510.32 | 40.78\% | 54 | 520 |
| 2014 | 58.34 | 548 | 40.18\% | 34,07 | 510.43 | 40.10\% | ${ }^{34}$ | 520 |
| 2015 | 53.38 | :4 | 40.14\% | 515.47 | \$10.53 | 40183\% | ${ }^{\text {s }}$ | \$21 |
| 206 | 53.4 | 4, | 40.18\% | S159.47 | 510.04 | 4298\% | 5 | ${ }^{32}$ |
| 2017 | 53.46 | ${ }^{31}$ | 40.19\% | \$14.47 | \$10.74 | 40.188 | $s$ | ${ }^{28}$ |
| ${ }^{2918}$ | ${ }^{3348}$ | 342 | 4018\% | ${ }^{584} 4.88$ | \$10.85 | 80.80 | 54 | ${ }^{524}$ |
| 2016 | 5351 | 342 | 4088\% | \$14. 48 | \$10.28 | 40.6\%\% | 54 | s24 |
| 2080 | ${ }^{3} 3.55$ | ${ }^{543}$ | 20,8\% | 577, ${ }^{88}$ | 84,07 | 4208\% | st | s22 |
| 2029 | ${ }^{33} 58$ | s43 | 40.38\% | \$17.28 | 51.19 | $4{ }^{4.19 \%}$ | ${ }^{84}$ | ${ }^{32} 2$ |
| 3232 | \$3.82 | 843 | 40.19\% | 81728 | \$1.29 | 40.18\% | ss | ${ }^{122}$ |
| ${ }^{2923}$ | N:36 | st | 40.16\% | 57768 | 314.40 | 40.18\% | \$5 | \%22 |
| ${ }_{2025}^{2024}$ | ${ }_{58,73}$ | ${ }_{\text {\% }}^{4}$ | 240.18\% | ${ }_{5}$ | ¢ | 40.78\% | ${ }_{55}^{58}$ | \$22 |
| 2026 | 53.77 | 548 | 40. $16 \%$ | 318.08 | \$11.75 | $40.18 \%$ | 5 | *23 |
| 2027 | ${ }_{585} 8$ | 546 | 40.38\% | 548.48 | ${ }_{811.87}$ | 40.35\% | ${ }_{8}^{85}$ | ${ }_{523}$ |
| 2028 | 53.34 | 546 | 2018\% | 518.48 | 51.198 | 4.78\% | 5 | 523 |


| Cascars |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 23 |
|  | Themris | Par mame | 6 Gss Suppty |
| 8ey | $\underline{178}$ | Suptrices | ${ }_{\text {cost }}$ |
| 2010 | 178 | S1,0082 | 5183 |
| 2011 | 98 | stapes | S195 |
| 2012 | ${ }^{178}$ | \$1050\% | 5187 |
| 2013 | \%78 | \$1,5614 | ${ }_{5189}$ |
| 2014 | 78 | \$1.0720 | stas |
| 2015 | ${ }^{774}$ | \$1.0828 | 5193 |
| 2016 | ${ }^{764}$ | \$1.0036 | \%95 |
| 2077 | ${ }^{788}$ | \$1,4935 | 5197 |
| 2018 | ${ }^{178}$ | \$5,1.156 | 5199 |
| 2018 | ${ }^{78}$ | \$1.1287 | 3204 |
| $2{ }^{2120}$ | ${ }^{178}$ | \$1,136 | 5203 |
| 2122 | ${ }^{178}$ |  | ${ }_{5} 52.5$ |
| 2222 | 78 | St,178 | S209 |
| $2{ }^{2} 23$ | 8 | srime | 5284 |
| 2229 | \%88) | 51.asi | 321 |
| 2225 | 178 | 81,1880 | \$2, |
| 2026 | \% | 81.2060 | 3245 |
| ${ }^{2027}$ | ${ }^{78}$ | ${ }^{81.2207}$ | 829 |
| 2023 | :88 | 51.2323 | 329 |

Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

```
Appliance Type
Clothes Drying
```

|  | Incremental <br> Revenue <br> Energy Charge | Incremental <br> Revenue <br> Cost of Gas | Incremental Revenue Cust. Charge | Total Gas Ravenue |  | Investment Carrying Costs | Incremental <br> Customer Costs | $\begin{aligned} & \text { Program } \\ & \text { Cost } \end{aligned}$ | Total 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 |
| 2009 | \$26 | \$51 | \$20 | \$98 | \$51 | \$11 | \$5 | \$103.65 | \$171 |
| 2010 | \$26 | \$52 | \$20 | \$98 | \$52 | \$11 | \$6 | \$3.65 | \$72 |
| 2011 | \$26 | \$52 | \$20 | \$99 | \$52 | \$10 | \$6 | \$3.65 | \$72 |
| 2012 | \$26 | \$53 | \$20 | \$99 | \$53 | \$10 | \$6 | \$3.65 | \$72 |
| 2013 | \$26 | \$53 | \$20 | \$100 | \$53 | \$10 | \$6 | \$3.65 | \$72 |
| 2014 | \$26 | \$54 | \$20 | \$100 | \$54 | \$9 | \$6 | \$3.65 | \$72 |
| 2015 | \$26 | \$54 | \$20 | \$101 | \$54 | \$9 | \$6 | \$3.65 | \$73 |
| 2016 | \$26 | \$55 | \$20 | \$104 | \$55 | \$9 | \$6 | \$3.65 | \$73 |
| 2017 | \$26 | \$55 | \$20 | \$102 | \$55 | \$8 | \$6 | \$3.65 | \$73 |
| 2018 | \$26 | \$56 | \$20 | \$102 | \$56 | \$8 | \$6 | \$3.65 | \$74 |
| 2019 | \$26 | \$56 | \$20 | \$103 | \$56 | \$8 | \$6 | \$3.65 | \$74 |
| 2020 | \$26 | \$57 | \$20 | \$103 | \$57 | \$8 | \$6 | \$3.65 | \$74 |
| 2021 | \$26 | \$57 | \$20 | \$104 | \$57 | \$7 | \$6 | \$103.65 | \$175 |
| 2022 | \$26 | \$58 | \$20 | \$105 | \$58 | \$7 | \$6 | \$3.65 | \$75 |
| 2023 | \$26 | \$59 | \$20 | \$105 | \$59 | \$7 | \$6 | \$3.65 | \$75 |
| 2024 | \$26 | \$59 | \$20 | \$106 | \$59 | \$7 | \$6 | \$3.65 | \$76 |
| 2025 | \$26 | \$60 | \$20 | \$106 | \$60 | \$6 | \$6 | \$3.65 | \$76 |
| 2026 | \$26 | \$60 | \$20 | \$107 | \$60 | \$6 | \$6 | \$3.65 | \$77 |
| 2027 | \$26 | \$61 | \$20 | \$108 | \$61 | \$6 | \$7 | \$3.65 | \$77 |
| 2028 | \$26 | \$62 | \$20 | \$108 | \$62 | \$6 | \$7 | \$3.65 | \$78 |

Present Value
of Benefits

Present Value
of Costs
$\qquad$

## Appliance Type <br> Clothes Drying

|  Osmatituon Exalater |  |  | 1.0\% | Depretation enata - Supply Hoin Depreciation Refe - Develeprofnt wain Depreanation Rafe - Sefvica Lina Deprociation Rete- - Mador |  |  | 330\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0\% |  |  |  | $3.30 \times$ |
|  |  |  | \% |  |  |  | 300\% |
|  |  |  | :0\% |  |  |  | $4.00 \%$ |
| Table 1 |  |  |  | Tame 12 |  |  |  |
| Fevenue - Energy Charge |  |  |  | Revenue - Costof cias |  |  |  |
|  |  |  |  |  |  |  |  |
| Yecter |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 2010 2011 | 59 | 50.2445 50.5845 | \$26 | 2080 | 50 50 50 | \$51.09029 | (3820 |
| 2012 | 50 | 80.5245 | 328 | 2012 | 50 | \$1.0509 | 353 |
| 2013 | ${ }_{50}$ | S0.5745 | 428 | 2093 | 50 | 51.0914 | ${ }_{53} 5$ |
| 2044 | ${ }^{50}$ | 50.5245 | 226 | 2019 | 5 | \$1.0720 | ss |
| 2095 | 50 | 30.522.55 | 526 | 2015 | ${ }^{50}$ | \$1.932 | ${ }^{364}$ |
| 2016 2097 | 50 | ${ }^{30.5245}$ | \$26 | 2018 | 50 | 51.0936 | 538 |
| ${ }_{2018}$ | ${ }_{50}^{50}$ | ${ }^{3} \mathbf{3 0 . 5 2 4 5}$ | \%26 | ${ }_{2018}^{2017}$ |  | (3, | ${ }_{\substack{385 \\ 385}}$ |
| 2019 | 50 | 50,5246 | 526 | 2019 | 50 | 81, 2129 | ss6 |
| 2020 | 50 | ${ }^{6} 6.5245$ | ${ }^{526}$ | 2020 | ${ }_{50}$ | 34,1386 | 55 |
| 2023 | ${ }_{50}^{50}$ | ${ }^{30.58245}$ | ${ }^{28} 8$ | 2021 | ${ }^{50}$ | 57,1949 | 557 |
| ${ }^{202023}$ | 50 |  | \% | ${ }_{2023}^{2022}$ | 500 | \$1.1909 |  |
| 2024 | 50 | ${ }^{50.5245}$ | 528 | 2024 | 50 | \% $11 \times 2$ | ${ }_{36 s}$ |
| 2025 | 50 | ${ }_{50} 52.585$ | ${ }^{585}$ | 2025 | 50 | 51, $5 \times 80$ | ${ }_{568}$ |
| ${ }_{2027}^{2026}$ | \% | ${ }^{30.5245}$ | ${ }^{228}$ | 2026 | 50 | ${ }^{512089}$ | sbe |
| ${ }_{\text {2028 }}^{2027}$ | 50 50 |  | ${ }_{5}^{328}$ | ${ }_{2028}^{2027}$ | 50 50 |  | (106 |


| Revenue - Customer Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | $3^{3}$ | - | 4 |
|  | Morthy | anua | Ratio Therms | A |
| rawe |  | Anux crava | consumed | custorit chame |
| 2006 | \$15.08 | \$180.00 | 112\%\% | ${ }^{820}$ |
| 2010 | 51500 | \$100.00 | 51.20\% | 320 |
| 2011 | \$15,.00 | st80.00 | 120\% | ${ }^{329}$ |
| 2012 | \$15.00 | ${ }^{31860.00}$ | $11.20 \%$ | 320 |
| ${ }^{2043}$ | \$15,09 | \$8800 | $11200 \%$ | ${ }^{328}$ |
| ${ }^{2094}$ | \$15.00 | stre.ce | 11.29\% | so |
| 2045 | 515.50 | ${ }^{5186083}$ | 11,29\% | ${ }^{328}$ |
| 2048 | 815.50 | Stice.ce | 1128\% | \$20 |
| 204 | 815.00 | stence | 11.23\% | *20 |
| 2016 | \$15, 0 a | \$180,00 | 1178\% | 320 |
| 2019 | 815.50 | \$180.00 | 11.28 F | 820 |
| ${ }^{2020}$ | 815.00 | stancic | 1129\% | ${ }^{36}$ |
| 2021 | \$15.50\% | ${ }^{\text {treasp }}$ | 11.20\% | ${ }^{320}$ |
| 2022 | 815.00 | stinat | $11.298 \%$ | ${ }^{38}$ |
| ${ }^{2022}$ | $\$ 1500$ $\$ 5000$ | ${ }^{\text {sizas.ce }}$ | 11290\% | 320 |
| ${ }^{2029}$ | \$15.00 | \$15900 | 11.2948 | 320 |
| ${ }^{2025}$ | \$15.00 | 5183,00 | 14.20\% | szo |
| 2028 | \$55,00 | ${ }^{31800.00}$ | 11.298 | ${ }_{320}$ |
| ${ }^{2027}$ | \$15.00\% | \$188.00 | 11.29\% | ${ }^{20}$ |
| 2028 | \$1500 | Sta0,00 | 1129\% | 576 |


| investmemi Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7 | 3 | 4 |  |  | 7 | 8 | 1978 |
|  | Supaty | Desotament | senvee |  | Yeam | cost | Rallo of Thems | mwestrant |
| Year | Man | Vam | Lice | Meer | masesmar | actas | corsumedto Tois | Cratices |
| ${ }^{202}$ | \$00 | \$56\% | 5670 | S180 | ${ }^{51,3,30}$ | 7.374 | ${ }^{11.29 \%}$ |  |
| 2010 |  |  | \$5649 | ${ }^{5173}$ | 81,303 | 7.3\%\% | 11.29\% | 319 |
| 2096 | ${ }^{\text {sex }}$ | 5468 | ${ }^{8510}$ | ${ }_{5196}$ | (8, | ${ }^{7} 3.3{ }^{\text {\% }}$ | midem | ¢19 |
| 2013 | 58 | \$438 | \$992 | 3183 | 8 s,171 | 730 | 11208 | 819 |
| 2014 | 85 | \$424 | 3474 | 5147 | 51,30 | 7.37\% | 11.23\% | 58 |
| 2015 | 8BĖ | S410 | 3457 | \$141 | \$1,098 | ${ }^{13} 37 \%$ | 11,2\%\% | 59 |
| 2018 | ${ }^{77}$ | 5388 | 8441 | 5135 | \$1,054 | 139\% | 11.2\% | 38 |
| 2077 | 578 | 5383 | 4275 | 5130 | \$1,014 | 737\% | 11.20\% | ${ }^{8}$ |
| 2091 | 573 | 5370 | ${ }^{2440}$ | s125 | se7s | 7.37\% | 11.28\% | *s |
| 2018 | \% | 535 | 5395 | 5120 | 5048 | 7.3\%\% | 11203 | ${ }^{56}$ |
| 2020 | ses | \$345 | 8361 | \$14 | 589 | 7.37\% | 14.29\% | ${ }^{56}$ |
| ${ }^{2021}$ | ${ }^{687}$ | \$335 | ${ }^{336} 9$ | 510 | 8878 | 7.37\% | 19,2\%\% | \$7 |
| 2022 | 585 | \$324 | \$354 | 5106 | 5548 | 7.37\% | 11.23\% | ${ }^{87}$ |
| 2023 | ${ }^{663}$ | 8313 | \$34; | 5102 | ${ }^{8819}$ | $7.37 \%$ | 11.29\% | $\pm$ |
| 2024 | ${ }_{581}$ | 8393 | ${ }_{83 \times 4}$ | 598 | 5789 | 7.3\% | 11.28\% | 37 |
| 2 az | ${ }^{53}$ | \$273 | 53 | ${ }^{\text {sed }}$ | 5763 | 7,3\%\% | 11.20\% | * |
| 2028 | 5 | 5283 | \$308 | 590 | 5738 | 737\% | 11.29\% |  |
| ${ }^{2027}$ | ${ }_{55}$ | \$3774 | ${ }_{5208}$ | sef | 870 | 7.37\% | $11.29 \%$ | ${ }^{*}$ |
| 2128 | 353 | 3265 | 1284 | s83 | 3885 | 737\% | 11.2\% | \% |


| incremental Customer Cobis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | ${ }^{5.854}$ | 5 | 1 | ${ }_{8}+6^{+7}$ | b+8 |
|  | Unonily | Atrual | Fatio Thems $\mathrm{To}^{\text {a }}$ | Anmal Raio | Aanuif | Fatio Thems To |  | Totat heemential |
| Yaar | Atm Coses | Aum. Cost | Tota Conemas | Atra Cosit | osucost | Totacmanto | о8MCas | Aamerambers |
| ${ }^{20 \times 8}$ | ${ }^{3318}$ | ${ }^{\text {s38 }}$ | 11288 | ${ }^{\text {84,29 }}$ | ${ }^{58.92}$ | 11,29\% |  | ${ }_{56}$ |
| 2010 2011 | 3327 5324 S |  | 11120\%\% |  | (\$10.02 | ${ }^{1129 \%}$ | ${ }_{\text {si }}^{81}$ | s6 |
| 2012 | 53.28 | 336 | 11.2\%\% | \$4.10 | \$10.22 | ${ }_{11,29 \%}$ | si | * |
| 2043 | 53.31 | sat | 11.28\% | 24.51 | 510.32 | 11.29\% | ${ }^{54}$ | ${ }^{6}$ |
| 2046 | 5334 | 340 | 01,2\%\% | 51.51 | \$10.43 | 1129\% | $s 1$ | ${ }^{6}$ |
| 2045 | 52.38 | 54. | 11.85\% | 54.93 | \$10.53 | 11.29\% | 51 | ${ }^{88}$ |
| 2 tre | 83.41 | ${ }^{341}$ | 1120\% | 34.48 | \$10.66 | 12,29\% | 81 | ${ }^{6}$ |
| 2017 | \%3, | ${ }^{341}$ | 11.29\% | 5489 | \$10.74 | 11209\% | 81 | ${ }^{86}$ |
| 2018 <br> 2018 <br> 0 |  | (342 | (1.29\% | S. | (tio. | ${ }^{11298 \%}$ | sit | ${ }^{86}$ |
| 2018 |  | 542 548 54 | (11.29\% | ${ }^{184.76}$ | (10.0. | 111299\% |  | 年 86 |
| ${ }_{2021}^{23020}$ | 5355 53.58 s3 | ( | \$1129\% | ${ }_{44.95}$ |  | (10.29\%\% | 51 51 51 | ${ }_{58}^{86}$ |
| 2022 | 8338 | sas | 11.28\% | 54.35 | 817,28 | $11.29 \%$ | ${ }_{8 i}$ | 56 |
| ${ }^{2023}$ | 53,88 | \$44 | 1128\% | \$4,97 | 51.40 | 11,20\% | s, | 56 |
| 2024 | ${ }^{3} 38$ | *4 | 11.298 | 54.97 | \$1,.52 | 1, Pa \% | \$1 | 56 |
| ${ }^{2025}$ | 53.78 | 545 | 11.234 | 5s56 | ${ }^{511.83}$ | 112\% | 81 | ${ }^{6}$ |
| 2026 | 5377 | 245 | $11.298 \%$ | \$598 | 81175 | 1128\% | s1 | ${ }^{36}$ |
| 2087 | 53.80 | \$46 | 11.29\% | 55.88 | ${ }^{11.1 .87}$ | \%20\% | 5 | st |
| 2028 | 53.84 | \$6 | 11.29\% | 85.19 | \$11.98 | +129\% | sit | 8 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 23 |
|  | Therms | Perthemm | Gas Surary |
| Yes |  | Surey cas | cost |
| ${ }^{2 \times 8} \times$ | 55 | 1.0ex) | ${ }_{\text {c5 }}^{55}$ |
| 2910 | 50 | \$1.0332 | sta |
| 2011 | ${ }^{50}$ | \$1,040 | Ss\% |
| 2012 | 5 | 31.56519 | 553 |
| 2013 | 59 | 51.0674 | ${ }^{53}$ |
| 20.14 | S | storse | ${ }^{534}$ |
| 2095 | 50 | \$10828 | *s |
| 2048 | 50 | ${ }^{1 / 1.9398}$ | ${ }^{255}$ |
| 209 | ${ }_{50}$ | $\$ 11015$ | ss |
| ${ }^{2048}$ | ${ }^{59}$ | ${ }^{121156}$ | ${ }^{556}$ |
| 2019 | 59 | st. 1287 | ${ }^{56}$ |
| 2020 | 50 | S11330 | ${ }_{857} 8$ |
| 2321 | 50 | S5:14.4 | 857 |
| 2028 | 50 | Stites | s58 |
| 2223 | 50 | 51.1725 | 859 |
| 2024 | 5 | \$1.1862 | 659 |
| 2035 | 5 | \$1.1860 |  |
| 2026 | 50 | St2080 | sai |
| ${ }_{2028}^{2027}$ | ¢ | \$127201 | ¢801 |

Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Cooking |


|  | Incremental <br> Revenue <br> Energy Charge | Incremental Revenue Cost of Gas | Incremental Revenue Cust. Charge | Total Gas Revenue | Gas <br> Supply <br> Cost | Investment Carying Costs | Incremental Customer Costs | $\begin{aligned} & \text { Program } \\ & \text { Cost } \end{aligned}$ | Total <br> 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 |
| 2009 | \$24 | \$46 | \$18 | \$88 | \$46 | \$10 | \$5 | \$103.29 | \$164 |
| 2010 | \$24 | \$46 | \$18 | \$88 | \$46 | \$10 | \$5 | \$3.29 | \$64 |
| 2011 | \$24 | \$47 | \$18 | \$89 | \$47 | $\$ 9$ | \$5 | \$3.29 | \$65 |
| 2012 | \$24 | \$47 | \$18 | \$89 | \$47 | $\$ 9$ | \$5 | \$3.29 | \$65 |
| 2013 | \$24 | \$48 | \$18 | \$90 | \$48 | \$9 | \$5 | \$3.29 | \$65 |
| 2014 | \$24 | \$48 | \$18 | \$90 | \$48 | \$8 | \$5 | \$3.29 | \$65 |
| 2015 | \$24 | \$49 | \$18 | \$91 | \$49 | \$8 | \$5 | \$3.29 | \$65 |
| 2016 | \$24 | \$49 | \$18 | \$91 | \$49 | \$8 | \$5 | \$3.29 | \$66 |
| 2017 | \$24 | \$50 | \$18 | \$92 | \$50 | \$8 | \$5 | \$3.29 | \$66 |
| 2018 | \$24 | \$50 | \$18 | \$92 | \$50 | 57 | \$5 | \$3.29 | \$66 |
| 2019 | \$24 | \$51 | \$18 | \$93 | \$51 | \$7 | \$5 | \$3.29 | \$66 |
| 2020 | \$24 | \$51 | \$18 | \$93 | \$51 | \$7 | \$5 | \$3.29 | \$67 |
| 2021 | \$24 | \$52 | \$18 | \$94 | \$52 | \$7 | \$6 | \$3.29 | \$67 |
| 2022 | \$24 | \$52 | \$18 | \$94 | \$52 | \$6 | $\$ 6$ | \$3.29 | \$67 |
| 2023 | \$24 | \$53 | \$18 | \$95 | \$53 | \$6 | \$6 | \$103.29 | \$168 |
| 2024 | \$24 | \$53 | \$18 | \$95 | \$53 | \$6 | \$6 | \$3.29 | \$68 |
| 2025 | \$24 | \$54 | \$18 | \$06 | \$54 | \$6 | \$6 | \$3.29 | \$69 |
| 2026 | \$24 | \$54 | \$18 | \$96 | \$54 | \$6 | \$6 | \$3.29 | \$69 |
| 2027 | \$24 | \$55 | \$18 | \$97 | \$55 | \$5 | \$6 | \$3.29 | \$69 |
| 2028 | \$24 | \$55 | \$18 | \$97 | \$55 | \$5 | \$6 | \$3.29 | \$70 |
| Present Value of Benefits |  |  |  | \$895 |  | Present Value of Costs |  |  | \$771 |

Benefit/Cost


| Reverue-Eustomer Chage |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 |  | 4 | 43 |
|  | Mortly |  | Ruxio Thens |  |
|  |  | Ammar Customer |  | $P_{\text {mixama }}$ |
| ${ }^{2009}$ | ${ }_{\text {cherse }}$ |  | $10.18 \%$ | 5+8 |
| 2010 | 515.00 | \$180,00 | $10.10 \%$ | \% |
| 2011 | 815.09 | \$180.00 | 10.19\% |  |
|  | \$15.50 | s780.00 | 10.10\% | 818 |
| 2073 | \$15.00 | \$180.00 | 10.19\% |  |
| 2018 | \$15.00 | \$180.00 | 10.10\% | ${ }^{\text {sid }}$ |
| 20.5 | \$15.50 | \$180.00 | 10.18\% | ${ }^{18}$ |
| 2016 | ${ }^{155.90}$ | 5180.00 | 10.16\% | ${ }_{8}$ |
| 201 | 815.00 | \$1180.:30 | 10.18\% | 818 |
| ${ }^{2018}$ | \$15.00 | \$19000 | 10.48\% | ${ }^{3} 8$ |
| ${ }^{2019}$ | 815,00 | \$160,00 | 10.6\% | 5+8 |
| 2020 | \%1500 | ${ }^{5180.000}$ | 10.10\% | ${ }^{18}$ |
| ${ }^{2027}$ | \$15.60) | \$130.00 | 10.06\% | :16 |
| 2022 | \$1500 | \$1800.00 | 10.10\% | \$18 |
| 2023 | ${ }^{15,58}$ | \$180.00 | 10.16\% | \% |
| ${ }^{2024}$ | \$15,00 | \$180.00 | ${ }^{10} 188^{8 / 4 \%}$ | ${ }^{16}$ |
| ${ }^{2025}$ | \$156, (8) | 518085 | 10.16\% | \% |
| 2028 | \$15.0\% | 5180.09 | 10.1 | ${ }^{16}$ |
| 2527 | \$15.03 | \$188.00 | na, | ${ }^{18}$ |


| Investment Carying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 2 | 3 | 4 | 5 | 8 | 7 | $\bigcirc$ | 878 |
|  | Supply | Dovatapmant | Service |  | Total | cost | Ratio of Thems | muvestrea |
| Year | Main | Mala | Line | Mater | invatmers | of Des | Conammes Ta Tota | carymagas |
|  |  |  |  |  |  |  |  |  |
| 20 | \% | \% | 15 |  |  | 7, | \% | ${ }^{6}$ |
| 2 | S | 848 | 351 | 5159 | \% | , | 源 |  |
| 20.3 | ${ }_{568}$ | sa38 | 5488 | ${ }_{5153}$ | 31.171 | \% ${ }^{3}$ | 10.19\% | \% |
| 2204 | ${ }^{\text {ses }}$ | \$124 | 5984 | 549 | \$1,130 | 7.37\% | 1038\% | ${ }^{88}$ |
| 2015 | ${ }^{562}$ | 5410 | 589 | \$14 | 81,090 | 7.37\% | 10,18\% | s8 |
| 2098 | 573 | ${ }^{5398}$ | \$449 | ${ }_{813}$ | 8,051 | 7.37\% | 1016\%\% | ${ }_{88}$ |
| 2017 | 378 | ${ }_{5363}$ | 8425 | 3130 | 81.014 | 733\% | 10.18\% | sf |
| 2048 | 8\%3 | 1372 | 5410 | 5123 | \%978 | 7.37\% | 10.189\% | 3 |
| 2019 | 87 | 238 | 8395 | \$20 | \%as | 7.3\%\% | 10.75\% | ${ }^{37}$ |
| 2020 | seg | \$348 | \$361 | \$176 | \% | 7.37\% | 10.14\% | 8 |
| 2021 | *97 | 8335 | s3e7 | 5130 | ser9 | 7.37\% | 10.18\%\% | 87 |
| 2022 | sts | 5384 | ${ }^{3} 364$ | \$108 | 8849 | 7.37\% | 10.18\%\% | sa |
| 2023 | ${ }^{563}$ | 5313 | 5341 | \$102 | 8818 | 7.37\% | 10.43\% | 56 |
| 2234 | ${ }^{561}$ | 5303 | 5328 | 598 | 579 | 7.3\%\% | 10.16\% | ss |
| 2025 | ${ }^{355}$ | 5283 | 8317 | ${ }^{894}$ | 8763 | 7.3\% | 10.18\% | ${ }^{6}$ |
| ${ }^{2028}$ | \$57 | 5283 | 550\% | \$00 | ${ }^{7736}$ | ${ }^{7} .37 \%$ | 10.18\% | ${ }^{6}$ |
| 2027 | s5s | 5274 | 5205 | :56 | 8710 | 7.37\% | 116 | 8 |
| 2029 | 583 | \%265 | \$289 | 543 | \%885 | 33\% | 10.16\% | s |


| Incremental Custemer Costs. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ; | 2 | 3 | - | ${ }_{5}^{5 \times 34}$ |  | - 7 | eme 7 | 38 |
|  | Homethy | Ammal | Fxto Themes To | Aemuat Ratio | Anmaia | Ratio Therns To | Anmut Ratio | nact |
| $y_{\text {yex }}$ | Atat coss | Adm. ${ }^{\text {coss }}$ | Trat Consem | ${ }^{\text {Adam }}$ Cost | $\mathrm{OsMcost}^{59}$ | Totat Consemed | Osm ${ }_{\text {cost }}$ |  |
| 201 |  |  | \% ${ }^{\text {a }}$ |  | 89 |  |  |  |
| 2019 | S3, | 3 | (1) |  | 5102 | \% | s1 | S |
| 2012 | 5338 | ${ }^{3}$ | 10.0 | 3000 | 5 | 1818 |  |  |
| 2013 | 83,3: | 440 | 10.10\% | sece | \$10.32 | 10.19\% | : | ${ }_{85}$ |
| 2014 | \$33 | 840 | 10.65\% | 34.20 | 310:3 | 10.19\% | : | 55 |
| 2015 | 73.38 | ${ }^{3} 1$ | 10.10\%\% | s4.6 | ${ }^{10.53,5}$ | 10.19\% | : | ${ }_{85}$ |
| 2018 | \$3.41 | 541 | 10.19\%\% | 54.8 | 40,94 | 10.18\% | * | ${ }^{55}$ |
| 2017 | \$3.44 | 541 | 10.10\% | s4.10 | 81078 | 10.14\% | s: | ${ }^{55}$ |
| 2018 | \$3.48 | ${ }^{3} 2$ | 10.18\% | 54.23 | \$10.95 | 10.18\%\% | s: | ${ }^{55}$ |
| - 2099 | 53,51 | 543 | 10.18\% | 54, ${ }^{4}$ | 810.38 | 10.16\% | \% | ${ }_{5}$ |
| - 2028 | ${ }_{53,55}$ | ${ }^{433}$ | 10.18\% | ${ }^{84.37}$ | \$11,9? | 10.18\%\% | \%! | 8 |
| 2021 | ${ }^{33} 59$ | \$3 | 10, 3\% | s4.37 | ${ }^{11,18}$ | 10.16\% | $3:$ | * |
| 2022 | 43:82 | ${ }_{43}$ | 4965\% | 84.37 | 511.25 |  | 3 | st |
| 2023 | 33.38 | \$4 | 19,6\% | *4.4? | 51.40 | \% $10 \%$ | 5 | * |
| 2024 | 53.89 | ${ }^{3} 4$ | 10.10\% | \% 6.42 | 51.52 | 0, 185\% | sif | ${ }_{6}$ |
| 2025 | 33,73 | ${ }_{* S} 4_{5}$ | 10.18\% | 54.57 | \$11.63 | 90 93 | st | * |
| 2026 | *37 | ${ }^{345}$ | 10.18\% | \$4, 57 | 511.75 | 10.18\% | si | 5 |
| 2027 | 53,90 | 346 | 10.10\% | 34.83 | 31.1 .87 | 12.19\% | 8 | 56 |
| 2088 | 54.84 | 548 | 10.16\% | 54.67 | s1198 | v2.19\% | * | 56 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | $2 \cdot 3$ |
|  | Therns | Commocity cas | cas sumbty |
|  | *5 | Suyply |  |
| 290 | ${ }_{4}$ | \$1.0302 | ¢66 |
| 2011 | 45 | 310405 | 54 |
| 20:2 | 4 | \$1.0509 | \$7 |
| 2013 | 45 | 81.0814 | 548 |
| 2014 | 65 | \$1.9720 | stib |
| 2015 | 45 | 510388 | на |
| ${ }^{2018}$ | 45 | 8, 0388 | 849 |
| 2017 | 45 | \$1,048 | 550 |
| 2078 | 45 | 5 5.7150 | ${ }^{556}$ |
| 2019 | 45 | 51.187 | ${ }_{\text {s }}^{5} 5$ |
| 2020 | ${ }_{45}$ | 58.1380 | 85: |
| 2027 | 45 | 517184 | 352 |
| 2922 | 45 | 5:1.1609 | ${ }^{535}$ |
| 2023 | 45 | $5^{51.1238}$ | ${ }^{553}$ |
| ${ }^{20284}$ | 45 | 5:1 1882 | 3m |
| ${ }^{2025}$ | 45 | sit 140 | d |
| ${ }^{2028}$ | 45 | ${ }^{312580}$ | ss4 |
| ${ }_{2923}^{2027}$ | ${ }_{4}^{4}$ | \$12207 | Stss |
| 2025 | 4 | 51,233 | ${ }^{355}$ |

## Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Storage Tank Water Heating |



# Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 <br> Residentlal Propane Distribution System Conversion Program 

 Participants Test - Data| Appliance Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Storage Tank Water Heating |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exclantion Rnta O\&M Experse LP Fual Cos | $\begin{aligned} & 1.00 \\ & 1.0 \% \\ & \hline \end{aligned}$ |  |  | $\begin{gathered} 0.0 \% 6 \\ 1.086 \\ 0.0 \% 6 \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Propane Cost-Tabte 1 |  |  |  |  | Nrural Gas Supply Cost- Yable 2 |  |  |  |  | Natural Oas Energy Charge Tabio 3 |  |  |  |  | Natural Cas Custorner Charge-Table 4 |  |  |  |  |  |  |  |
| Yeor |  | $\begin{aligned} & \text { Annual } \\ & \text { cationa } \end{aligned}$ | Tax fune | Propane Cout | Year | Cont Per Them | Antua Ther"m | Tax Ruto | Nacost | Year | R**) Per Therm | Athnual Thermas | YaxRter | ng cost | Year | monthly cuntomen Charye | Annual Customer chars | Applume Thernex | Totet Aninual Thum | $\begin{aligned} & \text { Reatio :- } \\ & \text { Appillence to } \\ & \text { Total } \end{aligned}$ | Tax Ratm | $\begin{gathered} \text { Profurtact } \\ \text { Customer Chavay } \end{gathered}$ |
| A | 日 | c | D | $\operatorname{arc}(1+\mathrm{D})$ | A | 日 | 0 | D | $\operatorname{BaC}^{+C(1+D)}$ | A | B | c | 0 | $8 \cdot 0^{0}(1+5)$ | A | B | $c$ | 0 | E | DRE | 0 | Cr(Prer (1+7) |
| 2000 | \$23400 | 188 | 7.5\% | 5 | 2009 | \$1.020 | 170 | 10.0\% | 3184 | 2009 | \$0.5245 | 170 | 10.0\% | 500 | 2000 | \$15.00 | \$180.00 | 170 | 43 | 38.37\% | 10.0\% | \$78 |
| 2010 | \$2.5533 | 188 | 7.5\% | son | 2010 | \$1.0302 | 170 | 10.0\% | \$193 | 2010 | \$0.5245 | 170 | 10.0\% | 50 | 2010 | \$15.00 | \$180.00 | 170 | 43 | 38.37\% | 10.0\% | 576 |
| 2041 | \$2.5605 | 188 | 7.5\% | \$819 | 2011 | \$1.1005 | 170 | 10.0\% | 3198 | 2011 | \$0.5245 | 170 | 10.0\% | ** | 2014 | \$1500 | \$180.00 | 170 | 44 | 38.37\% | 10.0\% | ${ }^{78}$ |
| 2012 | 52.5676 | 186 | 7.5\% | 8812 | 2012 | \$1.0509 | 170 | 10.0\% | \$487 | 2012 | 20.5245 | 170 | 10.0\% | 808 | 2012 | 515.00 | \$180.00 | 170 | 443 | 38.37\% | 10.0\% | \$76 |
| 2013 | \$25750 | 180 | 7.5\% | 6814 | 2013 | \$t.0614 | 170 | 10.0\% | \$184 | 2013 | \$0.3245 | 170 | 10.0\% | 59 | 2013 | \$15.00 | \$100.00 | 170 | 44 | 30.37\% | 10.0\% | \$76 |
| 2014 | \$2.5623 | 186 | 7.5\% | \$518 | 2014 | 31.0720 | 170 | 10.0\% | \$200 | 2014 | \$0.5245 | 170 | 10.0\% | *** | 2014 | \$15.00 | \$180.00 | 170 | 443 | 38.37\% | 10.0\% | 478 |
| 2015 | \$2.5as6 | 186 | 7.5\% | 461 | 2015 | \$1.0828 | 470 | 10.0\% | 1202 | 2015 | \$0.5245 | 170 | 10.0\% | \$p | 2015 | \$15.00 | \$180.00 | 170 | 443 | 38.37\% | 10.0\% | 978 |
| 2048 | \$2.5988 | 186 | 7.5\% | 4818 | 2016 | \$1.0938 | 170 | 10.0\% | :204 | 2016 | \$0.5245 | 170 | 10.0\% | \$88 | 2018 | \$15.00 | \$180.00 | 170 | 43 | 38.37\% | 10.0\% | 878 |
| 2017 | \$2.604 | 186 | 7.5\% | 4515 | 2017 | \$1.7045 | 170 | 80.0\% | *207 | 2017 | \$0.5245 | 170 | 10.0\% | \$08 | 2017 | \$15.00 | \$180.00 | 170 | 443 | 36.37\% | 10.0\% | 878 |
| 2018 | \$2.8113 | ${ }^{186}$ | 7.5\% | 8521 | 2018 | \$1.1956 | 170 | 10.0\% | \$209 | 2018 | \$0.5245 | 170 | 10.0\% | * ${ }^{18}$ | 2018 | \$15.00 | \$180.00 | 370 | 43 | 38.37\% | 10.0\% | 176 |
| 2019 | \$2.8180 | 168 | 7.5\% | \$022 | 2018 | \$1.1287 | 170 | 10.0\% | \$211 | 2019 | \$0.6245 | 470 | 10.0\% | \$980 | 2018 | \$15.00 | \$180,00 | 170 | 43 | 38.37\% | 10.0\% | 574 |
| 2020 | \$26258 | 188 | 7.5\% | *04 | 2020 | \$1.1380 | 170 | 10.0\% | 5213 | 2020 | \$0.5245 | 170 | 10.0\% | \$88 | 2020 | \$15.00 | \$180.50 | 170 | 43 | 38.37\% | 10.0\% | \$78 |
| 2021 | \$2.6339 | 186 | 7.5\% | \$288 | 2021 | \$1.4494 | 970 | 10.0\% | \$218 | 2021 | 50.5245 | 470 | 10.0\% | \$98 | 2021 | \$15.00 | \$180.00 | 170 | 443 | 38.37\% | 10.0\% | 178 |
| 2022 | 52.4604 | 108 | 7.5\% | * 67 | 2022 | \$1.8609 | 170 | 10.0\% | \%217 | 2028 | 30.524 | 170 | 10.0\% | \$00 | 2022 | \$15.00 | \$180.00 | 170 | 43 | 36.37\% | 10.0\% | ${ }^{67}$ |
| 2023 | \$2.8476 | ${ }^{188}$ | 7.5\% | 5800 | 2023 | \$1.1725 | 170 | 10.0\% | *2\% | 2023 | t0.5245 | 170 | 10.0\% | ${ }^{488}$ | 2023 | 515.00 | \$180.00 | 170 | 43 | 38.37\% | 10.0\% | 57\% |
| 2024 | 32.8549 | ${ }^{186}$ | 7.5\% | \$500 | 2024 | \$1.9842 | 170 | 10.0\% | *231 | 2024 | \$0.5245 | 170 | 10.0\% | *88 | 2924 | \$15.00 | \$180.00 | 170 | 43 | 36.37\% | 10.0\% | 578 |
| 2025 | \$2.0622 | ${ }^{186}$ | 7.5\% | 453 | 2025 | \$1.1980 | 170 | 10.0\% | S224 | 2025 | \$0.5245 | 170 | 10.0\% | *08 | 2025 | \$15.00 | \$180.00 | 170 | 43 | 38.37\% | 100\% | 778 |
| 2038 | \$2.5699 | 18 | 7.5\% | \$530 | 2026 | \$1.2080 | \%70 | 10.0\% | \$228 | 2028 | \$0.5245 | 170 | 10.0\% | \$08 | 2087 | \$15.co | \$180.00 | 170 | 443 | 30.37\% | 10.0\% | \%78 |
| 2027 | \$2.8767 | 1\% | 7.5\% | \$684 | 2027 | 31.2204 | 470 | 10.0\% | 5238 | 2027 | \$0.524 |  | 70.0\% | \$98 | 2027 | \$15.00 | \$180.00 | 170 | 443 | 36.37\% | 100\% | 778 |
| 2028 | \$2.8039 | 186 | 7.5\% | \% 56 | 2028 | \$1.2323 | 170 | 10.0\% | 5230 | 2028 | 50.5243 | 170 | 10.0\% | - 808 | 2028 | \$15.00 | \$180.00 | 170 | 43 | 38.37\% | 10.0\% | \$78 |

Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test -Cost Effective Results

| Appliance Type |
| :---: |
| Tankless Water Heating |



# Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 



| Propane Cost.Table 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Cost P* Gallan | Annual | Tavestor | Propane Cont |
| A | 8 | c | 0 |  |
| 2000 | \$2.5460 | 164 | 7.5\% | $4 *$ |
| 2010 | \$2.5533 | 164 | 7.5\% | 49 |
| 2011 | \$2.500\% | 164 | 7.5\% | 341 |
| 2012 | 52.5678 | 184 | 7.5\% | \$4s |
| 2013 | \$2.5750 | 184 | 7.5\% | 5463 |
| 2014 | \$2.5823 | 164 | 7.5\% | 445 |
| 2015 | \$2.58\% | 164 | 7.5\% | *4* |
| 2018 | 52.5968 | 184 | 7.5\% | 457 |
| 2017 | \$2.6941 | 154 | 7.5\% | 46 |
| 2018 | 52.6113 | 184 | 7.5\% | 5480 |
| 2019 | \$2.5188 | 184 | 7.5\% | 481 |
| 2020 | \$2.8259 | 184 | 7.5\% | \$462 |
| 2024 | \$2.6331 | 184 | 7.5\% | 443 |
| 2022 | 52.404 | 164 | 7.3\% | 5465 |
| 2023 | 52.5476 | 164 | 7.5\% | \$4se |
| 2024 | \$2.6549 | 184 | 7.5\% | 9467 |
| 2825 | \$2.8822 | 184 | 7.5\% | \$69 |
| 2026 | 32.8894 | 164 | 7.5\% | 370 |
| 2027 | \$2.8767 | 154 | 7.5\% | \$47 |
| 2028 | \$2.8839 | 164 | 7.5\% | 372 |


| Natuarl Cas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yoat | cont far Therm | annuas therrns | Tax Ratb | NG Coat |
| A | B | c | 0 | B+C $+1+0$ |
| 2000 | \$1.0200 | 150 | 10.0\% | 3168 |
| 2010 | \$1.0302 | 150 | 100\% | \$170 |
| 2011 | \$1.0405 | 150 | 10.0\% | 5172 |
| 2012 | \$1.0509 | 150 | 10.0\% | 1773 |
| 2013 | \$1,0614 | 150 | 10.0\% | \$176 |
| 2044 | \$1.0720 | 150 | 10.0\% | 117 |
| 2015 | \$1.0828 | 150 | 10.0\% | \$170 |
| 2013 | \$1.0838 | 150 | 10.0\% | \$180 |
| 2017 | \$1.1045 | 150 | 10.0\% | 3182 |
| 2018 | \$1.1158 | 150 | 100\% | \$184 |
| 2019 | \$1.1287 | t50 | 10.0\% | \$488 |
| 2020 | 51.1380 | 150 | 10.0\% | \$188 |
| 2024 | \$1.1494 | 150 | 10.0\% | \$100 |
| 202 | \$1.1609 | 150 | 10.05\% | 5188 |
| 2023 | \$1.1725 | 150 | 100\% | 483 |
| 2024 | \$1.1842 | 150 | 10.0\% | \$196 |
| 20 | \$1.1980 | 150 | 100\% | 8187 |
| 2026 | \$1.2080 | 156 | 10.0\% | 3168 |
| 2027 | \$1.2001 | 450 | 100\% | \$201 |
| 2028 | \$1.2323 | 150 | 10.0\% | 4303 |


| Natural Gas Energy Charge - Tablo 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rex Per | Annus Tharms: | Tax Remo | Nacost |
| A | \% | $c$ | D | $8 \mathrm{BCO}^{(1+0)}$ |
| 2009 | \$0.5245 | 150 | 10.0\% | 487 |
| 2030 | 5s. 5245 | 150 | 10.0\% | 80 |
| 2041 | \$0.5245 | 150 | 10.0\% | 88 |
| 2012 | \$0.5245 | 150 | 10.0\% | 87 |
| 2043 | \$0.324 | 150 | 10.0\% | 487 |
| 2044 | \$0.5245 | 150 | 10.0\% | 187 |
| 2015 | \$0.5245 | 150 | 10.0\% | $4 \times 7$ |
| 2018 | \$0.524 | 150 | 10.0\% | 887 |
| 2017 | \$0.5245 | 150 | 10.0\% | 187 |
| 2018 | \$0.5245 | 150 | 10.0\% | 867 |
| 2019 | \$0.5245 | 150 | 500\% | * 0 |
| 2020 | \$0.5245 | 150 | 10.0\% | 807 |
| 2021 | \$0.5245 | 150 | 10.0\% | 207 |
| 2022 | \$0.5245 | 150 | 10.0\% | 187 |
| 2023 | \$0.5245 | 150 | 10.0\% | \$87 |
| 2024 | \$0.5245 | 150 | 10.0\% | 87 |
| 2025 | 50.5243 | 150 | 10.\% | 887 |
| 2028 | \$0.5243 | 150 | 10.0\% | * 4 |
| 2027 | 50.5345 | 450 | 10.0\% | 857 |
| 2028 | \$0.5245 | 150 | 10.0\% | 37 |


| Natural Oas Custamer Charge-Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yeam | $\begin{aligned} & \text { Monstiy } \\ & \text { Cumpormer } \\ & \text { Champer } \end{aligned}$ | Annues Cuntomet Chirres | Appitanoe Amhuat Therms | Tomel <br>  Thertas | Prato - Apputhem to Tckith | Tax Rump | Prowntiod Cuthonn Change |
| A | B | $c$ | 0 | $E$ | DE | 6 | C(DE) (1+2) |
| 2009 | \$15.00 | \$100.00 | 150 | 423 | 35.45\% | 10.0\% | 170 |
| 2010 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | \$70 |
| 2011 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 870 |
| 2012 | \$5500 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 50 |
| 2013 | \$15.00 | \$800.00 | 150 | 43 | 35.45\% | 10.0\% | \$70 |
| 2014 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | *0 |
| 2015 | \$15.00 | \$80.00 | 150 | 423 | 35.48\% | 10.0\% | \$70 |
| 2016 | \$15.00 | \$180.00 | 150 | 423 | 35.45\% | 10.0\% | 370 |
| 2047 | \$15.00 | \$180.00 | 150 | 123 | 35.49\% | 10.0\% | \%70 |
| 2016 | \$15.00 | \$180.00 | 150 | 423 | 36.48\% | 10.0\% | 570 |
| 2019 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 870 |
| 2020 | \$55.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 470 |
| 2021 | \$15.00 | \$180.00 | 150 | 423 | 35.18\% | 10.0\% | 870 |
| 2022 | \$15.00 | \$180.00 | 150 | 423 | 35,46\% | 10.0\% | 570 |
| 2023 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | \$70 |
| 2024 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 570 |
| 2025 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 850 |
| 2023 | \$15.00 | \$180.00 | 150 | 123 | 35.46\% | 10.0\% | *\% |
| 2027 | \$15.00 | \$180.00 | 150 | 423 | 35.46\% | 10.0\% | 870 |
| 2028 | \$ 15.00 | \$80,00 | 150 | 423 | 36.46\% | 10.0\% | spo |

Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |



# Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program 

Participants Test - Data

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Heating System |  |  |  |
| Ecalution Mram |  | LP Delmargin Rut | 0.00\% |
| Oam Expense | 1.0\% | NGF Fuet Rate | 1.0\% |
| LP Fuer Cost | 105 | No buse Rates | $0.0 \%$ |


| Propane Cost - Table 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Couat Pier Ot | Annital Snilone | Tsaram | Propente cost |
| A | a | $c$ | 0 | arce $(1+0)$ |
| 2009 | \$2.5460 | 194 | 7.5\% | 5822 |
| 2010 | \$2.5533 | 124 | 73\% | *103 |
| 2011 | 32.5005 | 194 | 75\% | \% 3 |
| 2012 | \$2.567e | 194 | 7.5\% | \$5s30 |
| 2013 | \$2.5750 | 184 | 7.5\% | \$030 |
| 2014 | 52.5823 | 194 | 7.5\% | 483 |
| 2015 | 52.5989 | 194 | 7.5\% | 464 |
| 2018 | \$2.5988 | 194 | 7.5\% | * 62 |
| 2017 | \$2.0041 | 194 | 7.5\% | 34 |
| 2018 | \$2.8113 | 194 | 7.5\% | 1545 |
| 2018 | \$2.8186 | 194 | 7.5\% | 364 |
| 2020 | \$2.6259 | 184 | 7.5\% | \$506 |
| 2081 | \$2.6331 | 194 | 7.5\% | \$600 |
| 2022 | \$2804 | 194 | 7.5\% |  |
| 2023 | 52.6476 | 994 | 7.5\% | \$053 |
| 2024 | \$2.6549 | 494 | 7.5\% | 4565 |
| 2025 | \$28822 | 194 | 7.5\% | sam |
| 2028 | \$2.8694 | 194 | 7.5\% | \$80m |
| 2027 | \$2.6757 | 194 | 7.5\% | \$569 |
| 2028 | \$2.8839 | 184 | 7.5\% | \$591 |


| Natural Gass Supply Cost. Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | cosper TMent | Annum Therwh | Tax Ressa | Na Cont |
| A | B | $c$ | D | Brex $(1+\mathrm{D})$ |
| 2008 | \$1.0200 | ${ }^{176}$ | 10.0\% | \$200 |
| 2010 | \$1.0302 | 178 | 10.0\% | \$202 |
| 2011 | \$1.0405 | 178 | 10.0\% | \$204 |
| 2012 | \$1.0500 | 178 | 10.0\% | $\pm 00$ |
| 2013 | \$1.0614 | 178 | 10.0\% | \$208 |
| 2014 | \$1.0720 | 178 | 10.0\% | 5210 |
| 2015 | \$5.0828 | 178 | 10.0\% | \$212 |
| 2018 | \$1.0338 | 178 | 10.0\% | 5214 |
| 2017 | 51.1045 | 178 | 10.0\% | \$218 |
| 2018 | \$5.1158 | 178 | 10.0\% | 5218 |
| 2019 | \$1.1267 | ${ }^{7} 78$ | 10.0\% | \$231 |
| 2020 | \$1.1389 | 178 | 10.0\% | *223 |
| 2021 | \$1.1494 | 178 | 10.0\% | \$238 |
| 2028 | \$1.1809 | 178 | 10.0\% | 1277 |
| 2023 | \$1.1725 | 178 | t0.0\% | 5230 |
| 2024 | \$1.1842 | 478 | 10.0\% | \$292 |
| 2023 | \$1.1900 | 178 | 10.0\% | \$234 |
| 2028 | \$1.2080 | 178 | t0.0\% | *237 |
| 2027 | \$1.2207 | 178 | 10.0\% | 229 |
| 2028 | \$1.233 | 178 | 90.0\% | \$24 |


| Natural Ome Enerry Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rasmpor Tham | Aanua Therms: | Tax Rata | Ne Cost |
| A | B | $c$ | D |  |
| 2099 | 50.5245 | 178 | 10.0\% | \$103 |
| 2010 | 50.5245 | 178 | 10.0\% | \$103 |
| 2011 | \$0.5245 | 178 | 10.0\% | $\$ 103$ |
| 2012 | \$0.5245 | 178 | 100\% | \$103 |
| 2013 | 50.5245 | 178 | 10.0\% | 4103 |
| 2014 | 50.5245 | 178 | 10.0\% | \$103 |
| 2015 | 30.5245 | 178 | 10.0\% | \$103 |
| 2016 | \$0.5245 | 178 | 100\% | \$103 |
| 2017 | \$0.5245 | 178 | 10.0\% | 5109 |
| 2018 | 50.5245 | 178 | 10.0\% | \$703 |
| 2019 | \$0.5245 | 178 | 10.0\% | $\$ 103$ |
| 2020 | \$0.5245 | 178 | 10.0\% | \$109 |
| 2021 | \$0.524 | 178 | 10.0\% | 5103 |
| 2002 | 50.5245 | 178 | 100\% | \$193 |
| 2023 | 50.324 | 178 | 10.0\% | \$103 |
| 2024 | \$0.5245 | 178 | 10.0\% | \$103 |
| 2025 | 50.5245 | 178 | 10.0\% | 5103 |
| 2020 | \$0.5245 | 176 | 10.0\% | 5109 |
| 2027 | \$0.5245 | 178 | 10.0\% | 5103 |
| 2028 |  | 178 | 40.0\% | \$403 |


| Natural Oas Customer Charge- Tabie 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yanr | Monthy Cuatomis Charge | $\begin{aligned} & \text { Annual } \\ & \text { Customer } \\ & \text { Cherree } \end{aligned}$ | Applintrice Annisal Therme | Totar Annsal Thermea | R $\quad$ mito <br> Apritinete to Totas | Tax Rath | Prozama Charoe Charge |
| A | 8 | $c$ | 0 | E | De | 0 | Cromer + ) |
| 2009 | 815.00 | \$180.00 | 178 | 443 | 40.98\% | 10.0\% | seo |
| 2010 | \$15.00 | \$180.00 | 178 | 43 | 40.18\% | 10.0\% | 280 |
| 2041 | \$15.00 | \$180.00 | 178 | 443 | 40,18\% | 10.0\% | \% |
| 2012 | \$15,00 | \$180.00 | 176 | 443 | 40.18\% | 40.0\% | 500 |
| 2013 | \$15.00 | \$180.00 | 178 | 43 | 40,18\% | 10.0\% | 500 |
| 2014 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | *80 |
| 2015 | \$155.00 | \$100.00 | 173 | 43 | 40.18\% | 10.0\% | 580 |
| 2016 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | *80 |
| 2017 | \$15.00 | \$180.00 | 174 | 443 | 40.18\% | 10.0\% | 880 |
| 2018 | \$15.00 | \$180.00 | 178 | 43 | 40.18\% | 10.0\% | 580 |
| 2099 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10,0\% | 580 |
| 2020 | \$1500 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | 580 |
| 2021 | \$15.00 | \$180.00 | 175 | 43 | 40.18\% | 40.0\% | 500 |
| 2072 | \$15.00 | \$180.00 | 178 | 43 | 40.18\% | 10.0\% | 580 |
| 2023 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | \$80 |
| 2024 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | \$00 |
| 2025 | \$15.00 | \$180.00 | 178 | 43 | 40.18\% | 10.0\% | 500 |
| 2088 | \$15.00 | \$180,00 | 178 | 43 | 40.15\% | 10.0\% | \$80 |
| 2027 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | ** |
| 2028 | \$15.00 | \$180.00 | 178 | 443 | 40.18\% | 10.0\% | \$00 |

Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009
Residentlal Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Clothes Drying |


|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided <br> Propane Cost | NG Rebate | Avoided Propane Appliance O\&M | total Benefits | NG Equipment Cost | Propane Equipment Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$148 | \$100 | \$60 | \$30\% | \$0 | \$0 | \$0 | \$100 | \$80 | \$56 | \$29 | \$22 | \$267 |
| 2010 | 2 | \$150 | 0 | \$61 | $\$ 210$ | 0 | \$0 | 0 |  | \$81 | \$57 | \$29 | \$22 | \$188 |
| 2011 | 3 | \$150 | 0 | \$81 | \$211 | 0 | So | 0 |  | \$61 | \$57 | \$29 | \$22 | \$170 |
| 2012 | 4 | \$151 | 0 | \$62 | \$212 | 0 | so | 0 |  | \$62 | \$58 | $\$ 29$ | \$22 | \$174 |
| 2013 | 5 | \$151 | 0 | \$62 | \$214 | 0 | \$0 | 0 |  | \$62 | \$58 | \$29 | \$22 | \$172 |
| 2014 | 6 | \$152 | 0 | \$83 | \$215 | 0 | \$0 | 0 |  | \$83 | \$59 | \$29 | \$22 | \$173 |
| 2015 | 7 | \$152 | 0 | \$04 | \$218 | 0 | 50 | 0 |  | \$64 | \$60 | \$29 | \$22 | \$174 |
| 2016 | 8 | $\$ 152$ | 0 | \$64 | \$217 | 0 | \$0 | 0 |  | \$64 | \$60 | \$29 | \$22 | \$178 |
| 2017 | 9 | \$153 | 0 | \$65 | \$218 | 0 | \$0 | 0 |  | \$65 | $\$ 81$ | \$29 | \$22 | \$177 |
| 2018 | 10 | \$153 | 0 | \$66 | \$219 | 0 | \$0 | 0 |  | \$66 | \$81 | \$29 | \$22 | \$178 |
| 2019 | 11 | \$154 | 0 | \$86 | \$220 | 0 | \$0 | 0 |  | \$66 | \$62 | \$29 | \$22 | \$179 |
| 2020 | 12 | \$154 | 0 | \$67 | \$221 | 0 | \$0 | 0 |  | \$67 | \$63 | \$29 | \$22 | \$181 |
| 2021 | 13 | \$154 | 100 | \$66 | \$322 | 533 | (\$697) | 164 |  | \$68 | \$63 | \$29 | \$22 | \$182 |
| 2022 | 14 | \$155 | 0 | \$68 | \$223 | 0 | \$0 | 0 |  | \$68 | \$64 | \$29 | \$22 | \$183 |
| 2023 | 15 | \$155 | 0 | \$69 | \$224 | 0 | \$0 | 0 |  | \$69 | \$64 | \$29 | \$22 | \$185 |
| 2024 | 18 | \$156 | 0 | \$70 | \$225 | 0 | \$0 | 0 |  | \$70 | \$65 | \$29 | \$22 | \$188 |
| 2025 | 17 | \$156 | 0 | \$70 | \$227 | 0 | \$0 | 0 |  | \$70 | \$66 | \$29 | \$22 | \$187 |
| 2026 | 18 | \$157 | 0 | \$71 | \$228 | 0 | \$0 | 0 |  | $\$ 71$ | \$66 | $\$ 29$ | \$22 | \$189 |
| 2027 | 19 | \$157 | 0 | \$72 | \$229 | 0 | \$0 | 0 |  | \$72 | \$67 | \$29 | \$22 | \$180 |
| 2028 | 20 | \$157 | 0 | \$72 | \$230 | 0 | \$0 | 0 |  | \$72 | \$88 | \$29 | \$22 | \$194 |
|  |  |  |  | Presem Valus of Buncitis | \$2,258 |  |  |  |  |  |  | Prosent Valus of Conts |  | \$1,820 |
|  |  |  |  |  |  |  |  |  |  |  | Benefitcost Ratio |  | 1.24 |

# Chesapeake Utlities Corporation - AGDF Energy Conservation Filing 2009 

Residential Propane Distribution System Conversion Program
Participants Test - Data


| Propane Cost - Table 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yam | $\begin{aligned} & \text { Cost Pw } \\ & \text { Gallioni } \end{aligned}$ | Ammel Canlona | Tax Pater | Propane cost |
| A | 8 | c | D | $8 \cdot \mathrm{CO}(1+\mathrm{D})$ |
| 2009 | \$2.5450 | 55 | 7.5\% | \$149 |
| 2010 | \$2.5533 | 55 | 7.5\% | \$180 |
| 2011 | \$2.5805 | 55 | 7.3\% | \$1s0 |
| 2012 | \$2.5678 | 5 | 7.5\% | \$181 |
| 2013 | \$2.5750 | 55 | 7.5\% | \$159 |
| 2014 | \$2.583 | 55 | 7.5\% | \$182 |
| 2015 | \$25806 | 55 | 7.5\% | * 32 |
| 2016 | \$25068 | 55 | 7.5\% | \$142 |
| 2017 | \$2.604 | 53 | 7.5\% | \$153 |
| 2018 | \$2.6113 | 5 | 7.5\% | \$163 |
| 2019 | \$2.8186 | 55 | 1.5\% | 8154 |
| 2020 | \$2.625 | 5 | 7.5\% | 5154 |
| 2021 | 526331 | 55 | 7.5\% | \$184 |
| 2022 | 52.504 | 55 | 7.5\% | \$188 |
| 2023 | \$2.5476 | 55 | 7.5\% | \$166 |
| 2024 | \$2.8549 | 55 | 7.5\% | \$468 |
| 2025 | \$2.6623 | 55 | 7.5\% | \$100 |
| 2023 | \$2.6804 | 55 | 7.5\% | 516 |
| $20 \times 7$ | \$2.6787 | 55 | 7.5\% | 515 |
| 2028 | \$2.6839 | 55 | 7.5\% | 51.7 |


| Natural Oas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yowr | cont Por Therm | Annumi Themtrit | Tex Ratm | No Cost |
| A | B | c | 0 | Bref $(1+0)$ |
| 2008 | 31.0200 | 50 | 10.0\% | ** |
| 2040 | \$1.0302 | 50 | 10.0\% | 557 |
| 2011 | \$1.0405 | 50 | 10.0\% | 87 |
| 2012 | 31.0509 | 50 | 10.0\% | 56 |
| 2013 | \$1.0614 | 50 | 10.0\% | * |
| 2014 | \$1.0720 | 50 | 10.0\% | 89 |
| 2015 | 31,083 | 50 | 10.0\% | 80 |
| 2016 | 31.0936 | 50 | 10.0\% | 50 |
| 2017 | \$1.1045 | 50 | 10.0\% | * 1 |
| 2018 | \$1.1158 | 50 | 10.0\% | 89 |
| 2019 | 51.1287 | 50 | 10.0\% | \% |
| 2020 | \$1.1360 | 50 | 10.0\% | 503 |
| 2024 | \$1.1494 | 50 | 10.0\% | 83 |
| 2022 | \$1.1609 | 50 | 10.0\% | 5 |
| 2023 | 31.1723 | 50 | 10.0\% | 3 |
| 2024 | 31.884 | 50 | 10.0\% | \%as |
| 2025 | \$1.1980 | 50 | 10.0\% | \% |
| 2026 | 81.2080 | 50 | 10.0\% | \%00 |
| 2027 | \$1.2201 | 50 | 10.0\% | 4 |
| 2028 | 112323 | 50 | 10.0\% | 388 |


| Notural Gas Energy Charge . Tabla 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rath Pur | Annowed Therm: | Tax Rate | NG Cost |
| A | 8 | $c$ | D |  |
| 2008 | S0.5243 | 50 | 10.0\% | *s |
| 2010 | S0.3245 | 50 | 10.0\% | \$29 |
| 2014 | \$0.5245 | 50 | 10.0\% | \$29 |
| 2012 | 50.3248 | 50 | 10.0\% | 529 |
| 2013 | \$0.5245 | 50 | 10.0\% | \$29 |
| 2014 | 30.5245 | 50 | 10.0\% | \% |
| 2015 | 50.5245 | 50 | 10.0\% | 829 |
| 2016 | \$0.5245 | 50 | 10.0\% | *23 |
| 2017 | 30.5245 | 50 | 10.0\% | 29 |
| 2018 | 50.5245 | 50 | 10.0\% | \$29 |
| 2019 | 50.5245 | 50 | 10.0\% | \$28 |
| 2020 | 50.5245 | 50 | 10.0\% | \$2\% |
| 2021 | 50.524 | 50 | 10.0\% | \$2\% |
| 3022 | \$0.5245 | 50 | 10.0\% | 82\% |
| 2023 | 50.524 | 50 | 10.0\% | \% 2 |
| 2024 | 50.5245 | 50 | 10.0\% | 52 |
| 2023 | 50.5243 | 50 | 10.0\% | 128 |
| 2028 | 50.5245 | 50 | 10.0\% | 529 |
| 2027 | 50.5245 | 50 | 10.0\% | 82 |
| 2028 | 50. 5245 | 50 | 10.0\% | 53 |


| Natural Cas Customer Charge - Tabte 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yenr | $\begin{aligned} & \text { Monthiny } \\ & \text { custorymer } \\ & \text { Change } \end{aligned}$ | $\begin{aligned} & \text { Annual } \\ & \text { Cumbiver } \\ & \text { Cherge } \end{aligned}$ | $\begin{aligned} & \text { Applanes } \\ & \text { Annual } \\ & \text { Thermis } \end{aligned}$ | $\begin{aligned} & \text { Toman } \\ & \text { Annust } \\ & \text { Thermut } \end{aligned}$ | $\begin{aligned} & \text { Rathe } \\ & \text { Apphlance to } \\ & \text { Totan } \end{aligned}$ | Tax Rate | Pro-retued Cuthantor Charys |
| A | - | $c$ | 0 | $E$ | De | 6 | criber ( $1+2$ |
| 2008 | \$15.00 | \$180.00 | 50 | 43 | 11.2\% | 10.0\% | \$22 |
| 2010 | \$15.00 | \$18000 | 50 | 443 | 1128\% | 10.0\% | *22 |
| 2011 | \$15.00 | \$180,00 | 50 | 43 | 11.20\% | 10.0\% | \$22 |
| 2012 | \$15.00 | \$180.00 | 50 | 43 | $1128 \%$ | 10.0\% | \$22 |
| 2013 | \$15.00 | \$180.00 | 50 | 43 | 11.29\% | 10.0\% | \$22 |
| 2014 | \$35.00 | \$180.00 | 50 | 443 | 11.28\% | 10.0\% | \$22 |
| 2015 | \$15.00 | \$180.00 | 50 | 44 | $1120 \%$ | 10.0\% | \$22 |
| 2046 | \$15.00 | \$180.00 | 50 | 443 | 11.29\% | 10.0\% | \$22 |
| 2017 | \$15.00 | \$180.00 | 50 | 43 | 11.28\% | 10.0\% | 822 |
| 2018 | \$15.00 | \$180.00 | 50 | 43 | 11.28\% | 10.0\% | 822 |
| 2019 | \$15.00 | \$180.00 | 50 | 443 | 11.29\% | 10.0\% | 122 |
| 2020 | 815.00 | \$180.00 | 50 | 443 | 11.28\% | 10.0\% | \$22 |
| 2024 | \$15.00 | \$180.00 | 50 | 43 | 11.29\% | 10.0\% | \$22 |
| 2022 | \$15.00 | \$180.00 | 50 | 43 | 11.20\% | 10.0\% | 522 |
| 2023 | \$15.00 | \$180.00 | 50 | 44 | 1120\% | 10.0\% | *2 |
| 2024 | 315.00 | \$180.00 | 50 | 43 | 11.29\% | 10.0\% | 32 |
| 2025 | \$15.00 | \$150.00 | 50 | 443 | 1120\% | 10.0\% | 522 |
| 2028 | \$15.00 | \$180.00 | 50 | 43 | 11.28\% | 10.0\% | 422 |
| 2027 | 315.00 | \$180.00 | 50 | 443 | 1128\% | 10.0\% | \$22 |
| 2028 | \$15.00 | \$190.00 | 50 | 43 | 1120\% | 10.0\% | \%2 |

Chesapeake Utilities Corporation - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Cooking |



# Chosapeake Utilities Corporation - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program 

Participants Test - Data

| Appliance Type <br> Cooking |  |  |
| :--- | :--- | :--- |


| Propane Cost-Table 1 |  |  |  |  | Natural Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Y | Coat Por | Ancuman Gator | Tax Rate | Propene Cost | Year | Cost Per Therrn | Annusal Thermes | Tax Resta | NG Cost |
| A | B | c | D | $\mathrm{B}^{*} C(1+D)$ | A | B | c | 0 | $B^{*} C^{*}(1+D)$ |
| 2009 | \$2.5460 | 49 | 7.5\% | 3134 | 2009 | \$1.0200 | 45 | 10.0\% | 550 |
| 2010 | \$2.5533 | 49 | 7.5\% | \$135 | 2010 | \$1.0302 | 45 | 10.0\% | 851 |
| 2011 | \$2.5605 | 49 | 7.5\% | \$135 | 2011 | \$1.0405 | 45 | 10.0\% | 852 |
| 2012 | 52.5678 | 49 | 7.5\% | \$138 | 2012 | \$1.0509 | 45 | 10.0\% | 852 |
| 2013 | \$2.5750 | 49 | 7.5\% | 8138 | 2013 | \$1.0614 | 45 | 10.0\% | 853 |
| 2014 | \$25823 | 49 | 7.5\% | \$138 | 2014 | \$1.0720 | 45 | 10.0\% | 853 |
| 2015 | \$2.5996 | 49 | 7.5\% | \$137 | 2015 | \$1.0928 | 45 | 10.0\% | 854 |
| 2016 | \$2.5969 | 49 | 7.5\% | \$137 | 2016 | \$1.0936 | 45 | 10.0\% | 854 |
| 2017 | \$2.6041 | 49 | 7.5\% | \$138 | 2017 | \$1.1045 | 45 | 10.0\% | 555 |
| 2018 | \$26113 | 49 | 7.5\% | \$138 | 2018 | \$1.1156 | 45 | 10.0\% | 855 |
| 2018 | \$26188 | 49 | 7.5\% | \$138 | 2019 | \$1.1267 | 45 | 10.0\% | 858 |
| 2020 | \$2.6259 | 49 | 7.5\% | \$139 | 2020 | \$1.1380 | 45 | 10.0\% | \$58 |
| 2021 | \$26331 | 49 | 7.5\% | \$130 | 2021 | \$1.1494 | 45 | 10.0\% | 657 |
| 2022 | \$2.6404 | 49 | 7.5\% | \$139 | 2022 | \$1.1809 | 45 | 10.0\% | 85 |
| 2023 | \$2.6476 | 49 | 7.5\% | 8140 | 2023 | \$1.1725 | 45 | 10.0\% | 458 |
| 2024 | \$2.6549 | 49 | 7.5\% | \$140 | 2024 | \$1.1842 | 45 | 10.0\% | 50 |
| 2025 | \$2.6622 | 49 | 7.5\% | \$141 | 2025 | \$1.1960 | 45 | 10.0\% | 859 |
| 2026 | \$2.6694 | 49 | 7.5\% | \$141 | 2026 | \$1.2080 | 45 | 10.0\% | s80 |
| 2027 | \$26767 | 49 | 7.5\% | \$141 | 2027 | \$1.2201 | 45 | 10.0\% | 880 |
| 2028 | \$2.6839 | 49 | 7.5\% | \$142 | 2028 | \$1.2323 | 45 | 10.0\% | 561 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { Ratu Per } \\ \text { Thermer } \end{gathered}$ | Anmuan | Tex Rate | ng come |
| A | B | c | 0 |  |
| 2009 | 50.5245 | 45 | 10.0\% | 328 |
| 2010 | \$0.5245 | 45 | 10.0\% | \$28 |
| 2011 | \$0.5245 | 45 | 10.0\% | 526 |
| 2012 | \$0.5245 | 45 | 10.0\% | \$28 |
| 2013 | \$0.5245 | 45 | 10.0\% | 328 |
| 2014 | \$0.5245 | 45 | 10.0\% | 528 |
| 2015 | 50.5245 | 45 | 10.0\% | 528 |
| 2016 | 50.5245 | 45 | 10.0\% | 526 |
| 2017 | 50.5245 | 45 | 10.0\% | 328 |
| 2018 | 80.5245 | 45 | 10.0\% | 326 |
| 2019 | 30.5245 | 45 | 10.0\% | 328 |
| 2020 | \$0.5245 | 45 | 10.0\% | \$28 |
| 2021 | 50.5245 | 45 | 10.0\% | 328 |
| 2022 | \$0.5245 | 45 | 10.0\% | \$28 |
| 2023 | \$0.5245 | 45 | 10.0\% | \$28 |
| 2024 | \$0.5245 | 45 | 10.0\% | 52 |
| 2025 | 80.5245 | 45 | 10.0\% | 520 |
| 2026 | \$0.5245 | 45 | 10.0\% | \$28 |
| 2027 | 50.5245 | 45 | 10.0\% | 520 |
| 2028 | \$0.5245 | 45 | 10.0\% | 528 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yesr | $\begin{aligned} & \text { Montily } \\ & \text { Custoner } \\ & \text { Charge } \end{aligned}$ | $\begin{gathered} \text { Anmual } \\ \text { Custromer } \\ \text { Chapge } \end{gathered}$ | Appitance Annual Tharma | $\begin{aligned} & \text { Totat } \\ & \text { Annual } \\ & \text { Thermis } \end{aligned}$ | $\begin{aligned} & \text { Restic - } \\ & \text { Appllance to } \\ & \text { Total } \end{aligned}$ | Tax Rate | Pro-Pinted Customer Charge |
| A | 日 | c | D | E | D/E | G | Cforer $(1+2)$ |
| 2009 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 320 |
| 2010 | \$15.00 | \$180.00 | 45 | 443 | 10.15\% | 10.0\% | \$20 |
| 2011 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2012 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 820 |
| 2013 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2014 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 220 |
| 2015 | \$15.00 | \$180.00 | 45 | 443 | 10.96\% | 10.0\% | \$20 |
| 2016 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2017 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 320 |
| 2018 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 820 |
| 2019 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2020 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2021 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2022 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 320 |
| 2023 | \$15.00 | \$18000 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2024 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2025 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 320 |
| 2026 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |
| 2027 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | 520 |
| 2028 | \$15.00 | \$180.00 | 45 | 443 | 10.16\% | 10.0\% | \$20 |

## Attachment 2.2

## Associated Gas Distributors of Florida Energy Conservation Program Petition Residential Propane Distribution System Conversion Program March, 2009

Florida City Gas
Rate Impact Measurement Test
Participants Test
Summary of RIM Test and Participants Test Results

|  | Proposed <br> Allowance |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Gas Storage Tank Water Heating | $\$ 350$ |  | 1.70 |  |
| Gas Tankless Water Heating | $\$ 450$ |  | 1.17 |  |
| Gas Heating | $\$ 350$ |  | 1.41 | 1.12 |
| Gas Clothes Drying | $\$ 100$ |  | 1.40 | 1.19 |
| Gas Cooking | $\$ 100$ | 1.38 | 1.18 |  |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

```
Appliance Type
Storage Tank Water Heating
```



# Fiorida City Gas - AGDF Energy Conservation Filing 2009 

## Appliance Type <br> Storage Tank Water Heating



| investmont Carrying Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | $\bigcirc$ | ? | $\square{ }^{-1}$ | 678 |
|  | Suyst | Deerncomment | Semvics |  | Totat | cast | Ratio of therms | avastrent |
| Yoer | \% | ${ }_{5 \times \text { anc }}$ | Line | $\cdots$ ¢ | $\frac{\text { enversint }}{\text { it }}$ | ${ }^{\text {a }}$ | Conemen To Tote | ming coss |
| ${ }_{2010}^{2000}$ | ${ }_{5100}$ | ${ }_{\text {cosem }}^{5500}$ | ${ }_{5}^{5060}$ |  | 3, | ${ }_{7} .4 .22^{2}$ | 30. |  |
|  | 887 |  | S824 | 329 | 5 | , | 3,3, | S |
| 2011 | \% | 3472 | s889 | 5282 | s,737 |  | 38.37\% | ss |
| 2012 | 581 | 3468 | stss | 5220 | ${ }^{318784}$ | 7.62\% | ${ }^{39.37 \%}$ | ces |
| ${ }^{2013}$ | *988 | 5mas | 563 | \$259 | 81.815 | 7.22\% |  |  |
|  | sas | ${ }_{5632}$ | 578 | \$293 | 5:587 | 782\% | ${ }^{39.39 \%}$ | \% |
| 2245 | 3 | 5418 | 5122 |  | S 5 S02 | ${ }^{7.824}$ |  | * |
| 208 | 38 | 8507 | 3,3, | ${ }^{228}$ | s1,498 | 78\% | 3.37\% | 42 |
| 208 | \% | 3395 | smos | 3218 | 1.367 | ,*2\% | 3937\% | \% |
| ${ }^{2086}$ | 37 | 5384 | ${ }^{8878}$ | 8209 | 81,38 | 7.82\% | ${ }^{3.3} 3 \times 8$ | ${ }^{368}$ |
| 2016 | \%75 | ${ }_{53} 3$ | acez | \$200 | 31,300 | $782 \%$ | 38.37\% | 538 |
| 2020 | ${ }^{3} 3$ | 3368 | ${ }_{512}{ }^{2}$ | 5182 | ${ }^{11254 .}$ | 7.82\% | ${ }^{3} 3.3 .3 \%$ | ${ }^{33}$ |
| 2021 | 37: | \$352 | ${ }^{3} 603$ | 5196 | 8126 | 762\% | 36.3\%\% | 535 |
| 2622 | \% 8 | (3) | \$560 | sire | ?,6? | ${ }^{762 \%}$ | 33.37\% | ${ }^{34}$ |
| 2023 | \$69 |  | *588 | ${ }^{11769}$ | 11,128 |  | 36 $37 \%$ | ${ }^{31}$ |
| ${ }^{2} 2024$ | 365 |  | 8537 | \$162 | sices | 7.82\% | 39.37\% | 532 |
| ${ }^{2085}$ | 593 | $5{ }^{13}$ | 5517 | St35 | 5,048 | 782\% | 39.37\% | \% |
| 2026 | 581 | 5304 | ${ }^{3467}$ | ${ }^{51498}$ | 51,010 | 7,3\% | ${ }^{36.37 \%}$ | \% |
| 2027 | ${ }^{59}$ | 5208 | ${ }^{4} 787$ | 8142 | 5974 | , $62 \times$ | ${ }^{3} 3.33^{\circ} \%$ | ${ }^{328}$ |
| 2028 | 857 | s286 | 8489 | 5135 | 3839 | 8 zam | 38.37\% | 57 |


| Incremental Custioner Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mosathy | Ammal | Ratio Therres to | Anmual Ratio | Aniva' | Relio Therms $\mathrm{To}^{\text {a }}$ | Ammua Ratio | Tuad incrammental |
| ${ }_{\text {Yeat }}$ |  | Adm Cass | Texachersmed | Adm Cost | osmes. | Ytal Consumed | comcos | Adm 3 Osm ${ }^{\text {citas }}$ |
| ${ }^{2038}$ | ${ }^{31,58}$ | ${ }^{26}$ | 39,3\%\% | 36.21 | ${ }^{139} 13$ | 38.37\% | ${ }^{3}$ | $3: 7$ |
| 200 | 52,00 | ${ }^{25}$ |  | 58721 | 36.32 | 38.38\% | 87 | * |
| ${ }^{204}$ | 32.02 | 824 | ${ }^{383 \% \%}$ | *02\% | 519.5 | ${ }^{38.3 \% \%}$ | ${ }^{57}$ | sif |
| 2012 | \$204 | ${ }^{524}$ | 38.37\% | se2. 2 | 519.71 | 33.35\% | ${ }^{88}$ | 817 |
| 2018 | \$2.ce | ${ }^{235}$ | 38.3\%\% | \$5.59 | \$99.91 | 3 sm | 3 | 817 |
| ${ }_{2015}^{2015}$ | \$2.88 | ${ }^{25}$ | ${ }^{31.377 \%}$ | ${ }^{\text {59,59 }}$ | ${ }^{520.11}$ | ${ }^{38.87 \%}$ | 588080 | 817 |
| 2015 | \$2,10 | ${ }^{235}$ | ${ }^{38.37 \% \%}$ | ${ }^{30.59}$ | ${ }^{520.31}$ | ${ }^{3,3,374}$ | 8 | ${ }^{17}$ |
| 2016 | \$2. 28 | 5988 | 38.37\% | ${ }^{\text {s595959 }}$ | 520.51 | ${ }^{38,37 \%}$ | ${ }^{58}$ | \$17\% |
| 2017 | 妿19 | ${ }^{288}$ | Sex $3.37 \%$ | ${ }_{50}^{5088}$ | 5 | 3, $3.387 \%$ | sa | sis |
| ${ }_{\substack{2018 \\ 2018}}^{208}$ | 52.17 52.18 | ${ }_{826}$ | $38.37 \%$ $38.37 \%$ |  | ${ }_{\substack{320.62}}^{52+13}$ |  | \% | (18) |
| 2020 | \$2.21 | 527 | 36, 37 | \$80.38 | set, 3 | 36.37\% | 58 | 519 |
| ${ }^{2024}$ | 52.23 | 527 | 36.37\% | \$10.38 | 32:56 | ${ }^{39} 3.3 \%$ | 88 | 819 |
| 2022 | \$225 | ${ }^{82}$ | 33. $37 \%$ | 510.36 | st. 37 | 3.37\% | sf | ${ }_{51}$ |
| 2023 | 52.28 | 527 | 33,37\% | \$10.36 | 321.040 | 3337\% | 5 | \$ 19 |
| 2024 | 如30 | ${ }^{228}$ | ${ }^{39,39 \%}$ | sto ${ }^{\text {a }}$ | s 32.21 | 33.37\% | s\% | ¢194 |
| 2025 <br> 2028 | ( | 828 828 88 |  | ¢ | ${ }_{\substack{522.43 \\ 522.88}}$ |  | 888 | \$197 |
| 2027 <br> 2028 <br> 108 |  | ${ }_{529}$ | $33837 \%$ | star | ${ }^{322.28}$ | 33.37\% | ${ }^{59}$ | ${ }_{3}^{520}$ |


|  |  |
| :---: | :---: | :---: | :---: |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

RIM Test - Results


| Fuaf Retememat | 1.0\% | Cosposition Rexe Suppy Main |
| :---: | :---: | :---: |
|  | ** |  |
|  | \% | Depresition Rema Sarrce Lint |
| Osmmension Esacalor |  | Copreciation Rexa utelor |



| investment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 8 | 6 | 7 | 8 | 679 |
|  | Suppiy Devakenent |  | 5 savice |  | reat | cosi | Fatioul Thersi | (nvysment |
| Year | Main | Man | Lem | Meter | trastseer | quthest | Canamest $\mathrm{T}_{1}$ To | Canying Cost |
| ${ }_{2018}$ |  |  |  | ${ }_{3} 329$ | 8, 8 897 | ${ }^{782 \%}$ | $35.96 \%$ |  |
| ${ }_{2011}^{2046}$ | 369 | S486\% | (3724 | $\underset{5282}{1204}$ | ${ }_{51,37}$ | 7 | 35, 49\% | ${ }_{84}$ |
| 2012 | 39 | S468 | S355 | 5270 | 88.974 | 7.82\% | $3545 \%$ | 345 |
|  | \$98 | 5445 | \$823 | \$289 | 81,.15 | 7.82\% | *5.45\% | 4 |
| 20.14 | 345 | S632 | 3702 | 3298 | \$1.557 | 7.62\% | 35.66\% | 52 |
| 2075 | ${ }_{\text {se3 }}$ | 8419 | 5762 | 5238 | 51,502 | 7.62\% | 35.46\% |  |
| 2046 | $8{ }^{\text {84 }}$ | 3807 | *23 | sz28 | 51,463 | $78.82 \%$ | $35.89 \%$ | ${ }^{39}$ |
| 2017 | 87 | \% | 5706 | 32:8 | \$1,397 | $7.62 \times$ | 3545\% |  |
| 208 | 37 | S38a | ${ }^{3878}$ | s2:8 | ${ }^{31398}$ | 7,6\% | ${ }^{35.465}$ | 53 |
| 2017 | 375 | 5373 | ${ }^{3}$ | S200 | 13,800 | $7.822_{4}$ | 35.668\% | 635 |
| ${ }^{2020}$ | ${ }^{873}$ | 3362 | 5827 | 5162 | 5:244 | 7.62\% | 35,45\%\% | 839 |
| 2027 | 574 | \$352 | 5383 | \$184 | 59.210 | 3,6\% | ${ }^{3546 \%}$ | 333 |
| 2028 | 368 | :342 | 853it | 3176 | 81,167 | 7.68 | 85.4\%\% | 332 |
| 2023 | 567 | \$332 | \$558 | 5168 | 81,126 | 78.8 |  | 830 |
| ${ }^{2024} 4$ | stas | 3322 | 5537 | \$162 | \%1.888 | 78.8 \% | 36.45\% | 529 |
| 2023 | 563 | \$37, | 5517 | 3155 | 5,408 | 7.62m | 50.44\% | ${ }^{36}$ |
| 2928 | 561 | ${ }^{3324} 4$ | 3 sum | ${ }^{3148}$ | 8100 | 782\% | 354.46\% | 527 |
| 2027 | 558 | \$298 | ${ }_{5678}$ | ${ }^{1192}$ | 3874 | 7.624 | 3, 368 | ${ }^{328}$ |


| mincementai Customer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | 2 | 3 | 4 | 5 | 5 | 7 | $8{ }^{8+1}$ | 8.8 |
|  | Menthy | Annual | Fatio Therms to | Ammual Ratio | Атиня | Fatas Therss 70 | Amusal Ratic | Temat incematat |
| Yeer | $\pm$ Amitast | Adrt cost | Tola Comamed | Atan Coss. | oxmcost | Tatat Comomed | Osmest |  |
| 2008 | \$1,98 | ${ }^{\text {\$26 }}$ | \$5, $96 \%$ | 58.51 | \$18.13 | 35,6\%\% |  | 815 |
| 2090 | 12s0 | 524 | 3548\% | sas: | 389.32 | 3549\% | 87 | 315 |
| 204 | \$2.02 | 82e | 35.45\% | 50.51 | \$19,51 | $35.48 \mathrm{~m} /{ }^{\text {a }}$ | ${ }^{8}$ | \$15 |
| 2042 | \$2.06 | ${ }^{32} 2$ | \% 3 e\% | sas ${ }^{\text {a }}$ | \$19,7 | 35.40\% | 87 | 315 |
| 2013 | \$2.06 | \$23 | ${ }^{3} 40 \times 5$ | s8.87 | \$19.91 | 35. $68 \%$ | 87 | ${ }^{16}$ |
| 2014 | \$2.20 | ${ }^{25}$ | 15.48\% | su. 87 | s20.14 | 36.46\% | 87 | \$18 |
| 2015 | 32.10 | ${ }^{325}$ | 35.46\% | ${ }^{88,87}$ | ${ }^{320.34}$ | ${ }^{35.48 \%}$ | ${ }_{8}^{57}$ | ${ }^{816}$ |
| 2016 | 32.12 | s25 | 35.46\% | st.67 | 320.51 | 35.46\% | 87 | 816 |
| 2067 | 32.14 | ${ }^{326}$ | 35.40\%\% | 58.22 | 520.7\% | 35.49\%\% | 8 | \$7 |
| 2046 | 52.17 | ${ }^{326}$ | ${ }^{35} 48 \%$ | 3922 | 520.92 | 35.45\% | 8 | 817 |
| 2019 | \$2.18 | 820 | ${ }^{35} 46{ }^{\text {\% \% }}$ | ${ }^{38.22}$ | 522,13 | 35.40\% | 87 | ${ }_{547}$ |
| 2020 | 527 | ${ }^{52}$ | ${ }^{35} 46 \%$ | 58.57 | ${ }^{327} 134$ | 3540\% | ${ }^{88}$ | 89 |
| ${ }^{2021}$ | 32.38 | ${ }_{52} 2^{2}$ | 35.46\% | s2.57 | ${ }^{32.1 .58}$ | 35.46\% | ${ }^{58}$ | 817 |
| ${ }^{2023}$ | \$225 | 527 | 35.88 | 59.53 |  | 35.40\% | ${ }^{\text {sf }}$ | 517 |
| 2093 | ${ }^{22} 28$ | ${ }_{527}$ | 3x 484 | 39.57 | \$21.99 | ${ }^{3} 3.40 \%$ | s | ${ }^{17}$ |
| 2228 | ${ }^{52} 23$ | 528 | 354.45 | *293 | ${ }^{42221}$ |  | ${ }^{88}$ | 843 |
| 2025 | \$7.22 | ${ }^{328}$ | 3366\% | 54,93 | s22.43 | 35,45\% | ${ }^{58}$ | $5: 8$ |
| 2028 | 82.34 | ${ }_{328}$ | ${ }^{35} \times 19 \%$ | 89,33 | ${ }_{52268}$ | ${ }^{35} 445 \%$ | ${ }^{96}$ | ${ }_{8} 18$ |
| 2027 | \$2.37 | 428 | 3649\% | 3983 | 327.88 | 25.40\% | s8 | 818 |
| 2028 | 3238 | 829 | ${ }^{24} 488$ | 510.28 | 523.11 | 35.48\% | 58 | 348 |

\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Gas Conts} <br>
\hline + \& 2 \& 3 \& 23 <br>
\hline \& asms \& Per Them: \& as Sups <br>
\hline ${ }^{\text {Year }}$ \& \& Supply ${ }^{\text {cos }}$ \& cose <br>
\hline ${ }_{2010}^{2009}$ \& , 150 \& ${ }^{012009}$ \& 5146 <br>
\hline 2001 \& 150 \& 50.77070 \& ${ }^{\text {s1068 }}$ <br>
\hline 2011 \& +150 \& ${ }^{5072485}$ \& \$102 <br>
\hline 2042 \& 159

150 \& 507228 \& \$198 <br>
\hline 203 \& ${ }^{159}$ \& \$0.7288 \& \$198 <br>
\hline 20:4 \& 45 \& 50, 3 357 \& 5146 <br>
\hline 20,5 \& ${ }^{150}$ \& 88.7437 \& st11 <br>
\hline 2016 \& 150 \& s073565 \& 5113 <br>
\hline 2097 \& ${ }_{1} 59$ \& \$n7580 \& \$114 <br>
\hline 2048 \& ${ }^{150}$ \& ${ }^{80} 7855$ \& 515 <br>
\hline 2019 \& ${ }^{5} 50$ \& ${ }^{50.7732}$ \& 5146 <br>
\hline 2028 \& ${ }^{159}$ \& 50.7810 \& 5117 <br>
\hline 2021 \& ${ }_{158}$ \& ${ }^{50,7888}$ \& ${ }^{14188}$ <br>
\hline 2022 \& ${ }^{150}$ \& 52.7687 \& 519 <br>
\hline 2023 \& 150 \& 50.8046 \& 3421 <br>
\hline 2024 \& 150 \& 50.8127 \& \$122 <br>
\hline 2028 \& 150 \& 50.820] \& ${ }^{3123}$ <br>
\hline 2026 \& 150 \&  \& 8129 <br>
\hline ${ }_{\text {2088 }}^{2027}$ \& ${ }_{150}^{150}$ \& ${ }_{50}$ \& (3126 <br>
\hline
\end{tabular}

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Heating System |



Florida City Gas - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program RIM Test - Calculated Data

| Fwor Retas Escalatar Gas Enemy Charge Excautor Cas Customer Change EscalatorO8m/nfintion Exculator |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | $0 \%$ |
|  |  |  | \% |
|  |  |  | 1.0\% |
| Tation |  |  |  |
| Revenuc-Energy Charge |  |  |  |
| 1 | 2 |  | 23 |
| Yagr | trams | Emerase | Total Charge |
|  |  |  |  |
| ${ }^{2008}$ | ${ }^{178}$ | ${ }^{30.5884}$ |  |
| 2040 | ${ }^{176}$ | ${ }^{50.58888}$ | 3188 |
| 2041 | ${ }^{196}$ | 50.588\% | 3108 |
| 2012 | ${ }^{78}$ | 30.5884 | 8105 |
| ${ }^{2013}$ | 188 | 50.5884 | \$105 |
| 2014 | ${ }^{178}$ | to. 5 5894 | Stas |
| 2015 | 176 | 30.5884 | \$108 |
| ${ }^{20189}$ | 178 | 50.5886 | 305 |
| 2047 | ${ }^{178}$ | 50.5884 | stas |
| 2015 | 178 | 30.5884 | \$105 |
| 2080 | 178 | S0.5689 | ${ }^{\text {ctas }}$ |
| 2220 | ${ }^{778}$ |  | 8168 |
| ${ }^{2023}$ | 778 | \$0.5884 | 8108 |
| ${ }^{2022}$ | 178 | 30.5854 | 8108 |
| ${ }^{2023}$ | ${ }^{178}$ | sa.seet | ${ }^{105}$ |
| 2024 | 178 | 30.684 | stes |
| ${ }^{2028}$ | 78 |  | shes |
| ${ }^{2026}$ | 176 | 50.5884 | stos |
|  | \% |  |  |
| 2028 | 9 | S05884 | 3465 |


| \% | Depreciation Pefie - Suppoty Math Coprecialion Rete - Develoomend Mait Coprestation Reda - Sorviza Limb Dapretiation Fate- Mator |  |  | $2.80 \%$ $2.95 \%$ $3.8000 \%$ $4.208 \%$ |
| :---: | :---: | :---: | :---: | :---: |
|  | Tatat 12 |  |  |  |
|  | Revenue- Cost $\frac{1}{2}$ Cot Gas |  |  |  |
|  |  |  |  |  |
| , | Year Trems Fuat Rata Totaltamge |  |  |  |
|  | 20090 2010 | ${ }_{778}^{778}$ | 50.7000 <br> 507070 |  |
|  | 2011 | \%19 | 50.7141 | (128 |
|  | 2012 | ${ }^{78}$ | S37212 | S128 |
|  | ${ }_{2014}^{2013}$ | ¢ |  | \$ 5138 |
|  | ${ }_{2015}^{2014}$ | ${ }_{178}^{178}$ |  | 5138 <br> 5432 <br> 18 |
|  | 2046 | ${ }^{128}$ | \$0.7505 | 5138 |
|  | ${ }_{2017}^{2017}$ | \% 78 | (50.7560 |  |
|  | 2018 2019 | ${ }_{178}^{788}$ | 507esf |  |
|  | 2020 | ${ }^{79}$ | 58.7810 | 5198 |
|  | za3: | ${ }^{78}$ | s0.7388 | 5146 |
|  | ${ }_{2023}^{2023}$ | ${ }^{1788}$ |  |  |
|  | ${ }^{2024}$ | 778 | ${ }^{50.9127}$ | 5145 |
|  | ${ }^{2025}$ | ${ }^{78}$ | 50.82089 | \$346 |
|  | 2028 2027 | \% ${ }_{\text {\%88 }}$ | ${ }_{\substack{30.8200 \\ 50.3323}}$ | 5149 S149 |
|  | 2028 | ${ }^{78}$ | 518848 | S 354 |


| Revanue - Customar Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 |  | $\xrightarrow{4}$ | $\underline{4}$ |
|  | Mentry | Anual Crsamea | Retio Thems | Procree Anval |
| ${ }_{\text {rear }}$ | ${ }^{\text {chapas }}$ | chate | Corsumbi | cramer Charg |
| 2009 | \$11.6s | \$132.69 | 40.16\% | 553 |
| 10 | 311.00 | ${ }^{3132.000}$ | 40.18\% | ${ }^{53}$ |
| 2011 | \$11.00 | \$13200 | 4018\%\% | ${ }^{553}$ |
| 2012 | \$11.00 | 513,00 | 40, |  |
| 208 | \$17,00 | Sterem | 6x\% | ${ }^{883}$ |
| 2014 | \%1.es | \$32.00 |  | S |
| 2015 | \$1,00 | \$132,90 | 80.75\% | ${ }^{53}$ |
| 2016 | 314.30 | \$13,00 | 10.1e\% | 883 |
| 2017 | 311.00 | \$132.00 | 20.18\% | 353 |
| 2018 | \$11.00 | \$132.00 | $4618 \%$ | ${ }^{533}$ |
| 2019 | 31.100 | ${ }^{5132} 200$ | 50.18\%\% | ${ }^{63} 5$ |
| 20:a | 31.00 | \$ 5132.00 | 40.85 | 853 |
| 2021 | 31,00 | S132.20 | 50.28\% | ${ }^{43}$ |
| 2022 | S11100 | 5132.96 | $40.18 \%$ | 553 |
| 2023 | 314.00 | \$132.00 | 90.16\% | ${ }^{35}$ |
| 20.4 | 514.50 | 5132.00 | 40.19\% | 153 |
| 2025 | \$1,00 | \$132,50 | 80.1848 | 553 |
| 2026 | 311.00 | \$132.00 | 40.18\% | 353 |
| ${ }^{2027}$ | \$11.00 | \$132.00 | 460.8\% | 553 |


| investment Carying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| , | 2 | 3 | 4 | 5 | 5 | 1 | 8. | ${ }^{6} 78$ |
|  | Stuply | Dexatopmant | Serics |  | Toiat | cmst | Raxion thamer | Investinex |
| Year |  | main |  | Meser | wastrayt | 910 Dob | consumed fay yor | Catray cos |
|  | 3100 | Smac | \%era | 5307 | 51.867 | 7.6.\% | 46, 18.8 |  |
| 208 | 597 | S4886 | ${ }_{5824}$ | 5284 | 31.801 | ${ }^{\text {7.62\%\% }}$ | 40.98\% | ${ }^{35}$ |
| ant | ${ }_{594}$ | 5472 | seas | ${ }_{5282}$ | :3,73 | $7.62 \%$ | 40.18\% | 553 |
| 2012 | 94 | ${ }^{3458}$ | ${ }^{3955}$ | ${ }^{2370}$ | ${ }_{\text {S }}^{51,674}$ | 7.82\% | 40.19\% | 88 |
| 2043 | 588 | 345 | ${ }^{3823}$ | ${ }^{3239}$ | s, 1,15 | 742\% | $40.9 \%$ | 4 |
| 2014 | s | 3432 | 5789 | ${ }^{32} 86$ | \$1.557 | 7.82\% | 40.13\% | เ48 |
| 2015 |  | 3419 | \$782 | ${ }^{2238}$ | \$1,502 | 7.62\% | 40.19\% |  |
| 2016 | *1 | \$407 | 8733 | ${ }^{5228}$ | ${ }_{51} 1448$ | 7.62\% | 40.7\% | 4 |
| ${ }^{2017}$ | 570 | 5345 | ${ }_{5705}$ | 578 | sti.397 | 7.62\% | 40.18\% |  |
| ${ }^{2018}$ | ${ }^{877}$ | 5354 | sers | 5208 | 51.348 | 7.62\% | 40.98\% | 4 |
| 2014 | 575 | 3373 | 8tesz | ${ }_{52000}$ | + $8,3,306$ | \% |  |  |
| 2020 | 87 |  | ( | (tice | (1.234 | 70, | (10) | 836 |
| ${ }^{2021}$ | 598 |  |  | ) | (tale | 762\% | 40, |  |
| 2022 | 588 | ${ }^{342}$ | ssfag | 3176 | St.1.187 | 7.62\% | 40.13\% | 536 |
| ${ }^{2023}$ | ${ }_{885}^{887}$ | +5332 | ¢558 | S1968 | ${ }^{11128}$ | ${ }^{1}$ | 10.30\% | ${ }^{84}$ |
| 2024 | ${ }^{865}$ | 5332 | ${ }^{3537}$ | ${ }_{5}^{1862}$ | s1038 | 7.82\%\% | 40.178 | ${ }^{33}$ |
| 2228 | st3 | \$313 | 557 | ${ }_{5158}$ | 3 3,008 | 7,62\% | 40180 | 332 |
| yeat | 581 | s30 | \% 88 | \$149 | 51070 | 7808 | 40.19\%\% | 838 |
| ${ }^{2027}$ | *s8 | (3209 | ¢ | ${ }^{5142}$ | S074 | , | 40.99\% | \%980 |


| incremental Customer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 8 | - | S. $\mathrm{Sax}^{\text {a }}$ |  | - | ${ }_{\text {80, }}$ | 5+8 |
|  | Montity | Anmua | Amot thems $T 0$ | Ancuat Ratio | Ampuet |  | Amuxat Rats | Tatal trerememial |
| ${ }^{\text {Y }}$ |  | $\frac{\text { Atim } \text { cast }}{\text { S2 }}$ | Tolat Congemed | $\frac{\text { Adm Cort }}{898}$ | $\frac{0 s m C o s t}{18.3}$ | $\xrightarrow{\text { Tuata Cangemad }}$ |  |  |
| 2010 | 520 | S24 | 40.06\% | ${ }^{50}$ | 3 | ${ }^{40} 8$ | ${ }^{88}$ |  |
| 2011 | 58202 | ${ }_{524}$ | 20.18\% | 55.5 | 510.5 | ${ }_{48} 18.8$ | ${ }_{58}$ | 317 |
| 2032 | 82.24 | ${ }^{224}$ | 40.48\% | 5484 | 819.71 | 40, $8 \%$ | ${ }^{59}$ | 518 |
| 2013 | 52.29 | ${ }^{225}$ | 40.18\% | :10.05 | 310.04 | 90.9\%\% | 58 | 518 |
| 2049 | 52.88 | ${ }^{525}$ | 40.19\% | \$40.05 | 32.11 | 40.36\% | 38 | 318 |
| 2015 | 32.10 | *s | 40.189\% | \$10.05 | 32:34 | 40.18\% | ss | sts |
| 2015 | 52.12 | s28 | 40 18\% | \$10.05 | 3x ${ }^{5}$, | 40, $18 \%$ | 5 | ${ }^{316}$ |
| 2097 | 52:4 | ${ }^{326}$ | 46, 88\% | \$10.45 | 520,72 | 40.8\% | $5{ }^{\text {s }}$ | $3{ }^{\text {s }}$ |
| 2018 | :2712 | 528 | 40 16\% | \$ 10.4 .5 | \$20.32 | 40.0\% | 59 | 519 |
| 2068 | \$219 | 326 | 40, $10 \%$ | 50.45 | 52113 | 20,89\% | 56 | * 9 |
| 2020 | \$2.24 | 472 | 40.19\% | 380.85 | 5213 | 45:896\% | s8 | \$9 |
| ${ }^{21271}$ | sz23 | ${ }^{22}$ | 40.19\%\% | 810.85 | 321.56 | 40. $18 \%$ | 30 | 320 |
| 2022 | \$2.25 | s 73 | 60. $18 \%$ | 51085 | :24.7.77 | 40.19\% | 5 | 520 |
| 2723 | \$2,29 | 377 | 4035\% | \$10.65 | 321.93 | 46.18\% | 58 | 382 |
| ${ }_{2024}^{2025}$ | \$2,30 | ${ }^{328}$ | 40 $85 \%$ | ${ }^{3} 4128$ | 3228 | 40.18\%\% | ${ }_{59}$ | s2e |
| 2025 | ${ }^{32,32}$ | 528 | 40, 89\% | ${ }^{51} .2 .25$ | 522,63 | 40.18\% | 59 | se |
| ${ }^{2027}$ | 523\% | ${ }^{528}$ | 40.15\% | 51425 | s22.85 | 40.3\% | ${ }^{56}$ | ${ }^{22}$ |
| ${ }_{2027}^{2027}$ | ${ }^{22} 238$ | 5 | 40.196\% | si125 | 322, ${ }^{328}$ | 40.18\% | so | \$320 |
| 2028 | 82.38 | 38 | 20.18\% | 511.85 | ${ }^{82} \times 19$ | $48.99 \%$ | ${ }^{36}$ | 521 |


| Gastosts |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 |  | $\stackrel{3}{3}$ | 23 |
|  | Therns | Deethem | Gas Suppy |
| Year |  | Serat Com | ${ }_{\text {cost }}$ |
| 2200 | ${ }^{178}$ | so.7cen | \$125 |
| 2040 | ${ }^{178}$ | so.par | 1278 |
| 2011 | 98 | $5^{50,1,141}$ | 5127 |
| 2012 | 178 | 80,72:2 | \$128 |
| ${ }^{2013}$ | ${ }^{178}$ | san7234 | 5836 |
| 2014 | ${ }^{178}$ | 50.7357 | 8139 |
| 20.15 | ${ }^{178}$ | *07431 | \$132 |
| 2098 | ${ }^{176}$ | 80,7505 | 176 |
| 2047 | ${ }^{7 \% 8}$ | 50.7550 | 8195 |
| 2048 | 78 | ${ }^{80} 785858$ | 5136 |
| 2019 | ${ }^{178}$ | 50.7732 |  |
| ${ }^{2020}$ | 178 | se7eso | \$139 |
| ${ }^{2022}$ | ${ }^{178}$ | sozese | \$140 |
| 3292 | 176 | 207367 | \$142 |
| 2233 | ${ }^{178}$ | 50.8508 | ${ }^{143}$ |
| 2024 | 178 | ${ }^{80.8127}$ | 1145 |
| ${ }_{2}^{2 \times 28}$ | P98 | 50.8278 | \$146 |
| 2025 | 178 | samas | ${ }^{5148}$ |
| $\underset{2028}{2027}$ | (178 | ${ }_{50}^{50,33^{5} 7}$ | (1548 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Clothes Drying |



# Florida City Gas - AGDF Energy Conservation Filing 2009 

 Residential Propane Distribution System Conversion Program RIM Test - Calculated Data| Appliance Type |
| :---: |
| Clothes Dring |


| Fuet Ranit Escailitor | 1.0\% | Devreciatan Rexa - Sumply Main | 2.80\% |
| :---: | :---: | :---: | :---: |
|  | \%\% |  | $2.20 x^{5}$ |
| Ses Cumamer Chaste Excaidor | 08 | Laparation frato - Servica Lise | 3, 8 \% |
| cosmimation Exelatar | $10^{\circ}$ | Corsectron Reta - Mater | .2085 |



| Investment Carcyincosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |  |  | 7 | $\bigcirc$ | ${ }^{\text {bree }}$ |
|  | Suppry | Develcprnat | Servica |  | Teat | ciss | Rato of thems | Maxetmmat |
| Yest |  |  | Uns | Matar | Lavestment |  | Conarmodto Tox | Cammatics |
| ${ }^{2009}$ | ${ }_{\text {simi }}$ | ${ }_{\text {S }}^{5060}$ | $\stackrel{3060}{ }$ | ${ }^{5335}$ | ${ }^{\text {sin }}$ | 7,72\%4 | 1,2,2\%\% |  |
| 2010 | 507 | S466 | ${ }_{5029}$ | 5284 | S1,697 | ${ }^{7}$ 7.32\% | $1.12 \times 8$ | 515 |
| 209 | 594 | 8487 | ${ }^{5888}$ | ${ }^{3282}$ | strs? | $732 \%$ | 11.29\% | \$158 |
| 2012 | 504 | ${ }^{3458}$ | sess | ${ }^{8279}$ | 51, | ${ }^{782 \%}$ | 11.20\% | ${ }^{\text {ch }}$ |
| 2033 | 588 | 345 | ${ }^{882}$ | ${ }^{3259}$ | 3,845 |  | $11.28 \%$ | \$144 |
| 2014 | 5 | \$432 | 5792 | ${ }^{2} 248$ | 8.5857 | ${ }^{782 \%}$ | 11.2\%\% | ${ }^{18}$ |
| 2015 | 53 | 5419 | 5782 | ${ }^{2338}$ | ${ }^{31502}$ | 702\% | 13.2e\% | ${ }^{1813}$ |
| 2016 | ssi | 5407 | ${ }^{8733}$ | ${ }^{8228}$ | 27,44 | 782\% | ", mex | 812 |
| 2047 | 578 | szes | 8785 | ${ }^{52129}$ | ${ }^{\text {S1,397 }}$ | 702\% | \%1,29\% | 512 |
| 2018 | 87 | 5364 | *3\% | 5254 | 81.348 | ${ }^{\text {,28\% }}$ | 41.28* | \$112 |
| 2049 | 375 | 5373 | $\mathrm{sch}_{2}$ | 3280 | 15,200 | 732\% | 1178 | 814 |
| 2020 | 573 | \&3az | se2? | 8152 | ${ }^{31,54}$ | \% ${ }^{\text {a }}$ \% | 11.2\% | \$11 |
| ${ }_{2021}^{2022}$ | ¢88 | ${ }_{\substack{2038 \\ 832}}$ | - |  |  | $\underset{\substack{782 \% \\ 782 \%}}{ }$ | , $11.2 \times 8$ | ${ }_{818}$ |
| 2023 | ${ }_{587}$ | \%332 | 8556 | ${ }_{8159}$ | stims | ${ }_{7} \times 2 \times 24$ | \%,2\%* | ${ }_{516}$ |
| 2024 | \$50¢ | 5332 | 5537 | \%182 | 3,098 | ${ }_{7} 92 \times$ | 11.28\% | 3 |
| 2025 | ses | 531 | 5617 | 515\% | 31,948 | 7,92\% | 11.2\% | ${ }^{59}$ |
| 2028 | 589 | S304 | 5497 | S148 | \$1,00 | 7.62\% | 11.20\% | 5 |
| ${ }_{2028}^{2027}$ | ${ }_{5}^{559}$ | $\underset{\substack{8258 \\ \text { \%288 }}}{ }$ | Some | ${ }_{\substack{3146 \\ 1364}}$ | Stis | $r 112 \%$ | (1, $11.38 \%$ | * |


| Fincemental Customer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | S-359 | 8 | 7 | $8 \times 67$ | 5 5 |
|  | Moctuy | Annuai | Fatio Therms To | Anmul Rato | Armat | fuas Theme to | Asmuan Reios | Totaideremormatal |
| rost | Adm. cost | Adm. | Tolal Consumes | Adm. crat | osmess | Troalconsume |  | Atm $x$ Osucos |
| 2008 | S1.88 | ${ }^{524}$ | 112,29\% | ${ }^{5273}$ | ${ }^{518.13}$ | 1128\% |  | :5 |
| 2010 | \$2.00 | 524 | 112\%\% | 5271 | \$1932 | 11.29\% | 32 | s |
| 2014 | \$202 | ${ }^{24}$ | 11,29\% | \$271 | \$4957 | 1120\% | 52 | * |
| 2012 2013 | ¢ 52.04 | 824 825 825 | H1729\% |  |  | 11.29\% | ${ }^{32}$ | *5 |
| ${ }_{2014}$ | \$2.06 | ${ }_{525}$ | $1128 \%$ | \$2.82 | \%20.31 | 11.2\%\% | ${ }_{\text {s2 }}$ | s |
| 20.15 | 52, ${ }^{\text {co }}$ | 525 | 1209\% | 52.82 | 52031 | 11,2\%\% | \$2 | 5 |
| 2046 | \$2.12 | 525 | \%128\% | 32 32 | s2est | $1120 \%$ | 52 | ss |
| 2017 | 52.14 | ${ }^{525}$ | 112.2\% | N2.23 | 82072 | 11.20\% | 53 | ${ }_{5}^{5}$ |
| 2018 | 3277 | 528 | 12.29\% | 32.83 | 52092 | 412.2\% | 32 | ${ }_{5} 5$ |
| 2096 | \$2,48 | ${ }_{528}$ | 132 m | 52, 23 | 12213 | 1120\% | \$2 | 85 |
| 2020 | 32.24 | ${ }^{37}$ | 19,29\% | 53.05 | ${ }^{321} 38$ | 11.2\% \% | ${ }^{3}$ | ${ }^{5} 5$ |
| 2021 | 3223 | ${ }^{527}$ | 1129\% | 33.55 | 527 58 | 31.20\% | \$2 | ${ }^{5}$ |
| 2022 | \$2.25 | 87 | 41209\% | *305 | 52.71 | 11238 | 32 | 86 |
| 2223 | 52.28 | 527 | 173\% | 83, 3 | ${ }^{42}$ | 11,206 | \$2 | 56 |
| 2029 | 3239 | 529 | 1129\% | 33.4\% | 422.8 | ${ }^{19.20 \%}$ | *3 | ${ }^{\text {\% }}$ |
| 2025 | \$2.32 | ${ }^{32}$ | 1123\% | 83.46 | 522.43 | 4122\% | ${ }^{3}$ | st |
| 2028 | \$2.34 | s28 | 1120\% | 53.16 | ${ }_{4278}$ e | 11.208 | * | ${ }^{56}$ |
| 2027 2088 | 82.37 82.30 | ${ }_{3}^{523}$ | \% | (3x14. | ${ }_{5}^{12238.1}$ | ${ }^{112,29 \%}$ | [38 | ${ }_{6}^{*}$ |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| -- | 2 | - | 23 |
|  | Thems | Per mem | 6\%ss |
| ${ }^{\text {Year }}$ 2009 | 50 | $\frac{\text { Supht cass }}{0.7808}$ | ${ }_{5}^{5} \mathbf{c}$ |
| 2010 | so | 80.7079 | ${ }_{635}$ |
| 284 | 50 | 50.714 | ${ }^{336}$ |
| 2012 | so | sa, 2212 | ${ }^{36}$ |
| 2013 | 50 | 5072a4 | ${ }^{568}$ |
| 2014 | 50 | 50.735? | ${ }_{37}^{357}$ |
| 2045 | ${ }^{50}$ | s0.733: | ${ }^{39}$ |
| ${ }^{2018}$ | ${ }_{50}^{50}$ | 50,7805 | ${ }^{\text {s38 }}$ |
| 2017 | ${ }_{50}^{50}$ | sonseay | ${ }^{238}$ |
| ${ }^{2046}$ | 58 | ${ }^{20} 07858$ | ${ }^{538}$ |
| 2098 | so | ${ }^{30.7732}$ | ${ }^{339}$ |
| ${ }_{2000}^{2000}$ | 50 50 50 | (5, 5 | *398 |
| ${ }_{2022}^{2024}$ | ${ }_{50}^{50}$ | 50, | \% ${ }^{3} 8$ |
| z023 | 50 | si,, cos | 540 |
| 2024 | 5 | \$0, 5 \% | 84 |
| ${ }_{2028}^{2025}$ | 50 | 50.838 | \% |
| 2027 | 50 | s5.as3 | 84 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results


Appliance Type

|  |  |  | $\begin{aligned} & 1,0 \% \\ & 0 \% \\ & 0 \% \\ & 10 \% \end{aligned}$ |  | (eaty Min |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yation |  |  |  | Tatas 14 |  |  |  |
| Revenue-Energy Charge ${ }_{2}$ |  |  |  | Revenue-Costof Gas |  |  |  |
|  |  |  |  | : | \% | 4 | 23 |
| $\mathrm{Y}_{\text {Ser }}$ |  |  |  | Yatar | $T_{\text {Thems }}$ |  |  |
| ${ }_{2010}^{2006}$ | ${ }_{45}^{45}$ | ${ }^{\mathbf{c}}$ | ${ }_{5}^{526}$ | ${ }_{2010}^{2089}$ | ${ }^{45}$ | ${ }^{\mathbf{8}}$ | ${ }_{332} 3$ |
| 2014 | ${ }_{4}$ | **S.Sea | \$28 | 2 cm |  | 50.714 | ${ }_{32}$ |
| 2312 | 45 | 505384 | ${ }^{326}$ | 2062 | 4 | ${ }^{30.7212}$ | ${ }^{32}$ |
| 2013 | ${ }^{45}$ | 50.584 | ${ }^{526}$ | 2043 | ${ }^{45}$ | 50.7284 | ${ }^{33}$ |
| ${ }^{2014}$ | ${ }_{45}^{45}$ | ${ }_{5}^{50.5888}$ | \%28 | ${ }_{2014}^{2014}$ | ${ }_{8}^{45}$ |  | 33 <br> 33 <br> 38 |
| 2015 <br> 2014 <br> 2015 | ${ }^{45}$ | 50.5884 <br> 505894 | \% | ${ }_{2015}^{2015}$ | 45 45 45 |  | 53 <br> 83 <br> 84 |
| 2016 2077 | ${ }_{4}$ | ${ }_{\text {cosem }}^{50.5834}$ | ${ }_{326} 58$ | ${ }_{2}^{2016}$ | ${ }_{45}^{45}$ |  | 534 |
| ${ }_{2016}$ | 4 | so.sebe4 | 326 528 | ${ }^{2017}$ | ${ }_{4}^{4}$ |  | 384 <br> 884 <br> 80 |
| 2019 | ${ }_{4}^{45}$ | 505584 | \$26 | 2959 | 45 | 50.7732 | 335 |
| 2022 | 45 | w, 58 s 4 | 326 | 2020 |  | sa,7610 | ${ }^{35}$ |
| 2221 | 45 | *0.594 | ${ }^{326}$ | 2021 | 45 | 50, Pa an | ${ }^{3} 5$ |
| 2022 | ${ }_{4}^{4}$ | ${ }_{\text {spenean }}$ | * | ${ }_{2023}^{2022}$ | ${ }_{45}^{45}$ | *070e? | 536 |
| ${ }_{2024}^{2023}$ | ${ }_{4}^{45}$ |  | (126 | $\underset{\substack{2023 \\ 2028}}{2028}$ | ${ }_{45}^{45}$ |  | ${ }^{33} 8$ |
| 2035 | 45 | 30, 5 Sbed | ${ }^{326}$ | 2025 | 45 | s0.820e | 137 |
| 2208 | 45 | 50.5884 | ${ }^{326}$ | 2026 | 45 | 50.8200 | ${ }^{37}$ |
| 8297 | 45 | 35.5084 | 326 | 2027 | 45 | 50.8373 | ${ }^{33}$ |
| 2228 | 45 | so Se84 | s28 | 2028 | 45 | 30.8457 | ${ }_{63}$ |


| Revenue. Customer Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 |  | 4 | $4 \cdot 3$ |
|  | Monthy |  | Ratu Thems |  |
| Year | Chamed |  | Comsumat | $\xrightarrow{\text { Proursers Amuat }}$ |
| 2208 | \$1,400 | \$132.20 | 10,10\% | 333 |
| 2010 | 51120 | ${ }^{5132.00}$ | 10.5\% | ${ }^{3}+3$ |
| 2011 | \$11.00 | \$132..10 | 10.18\% |  |
| ${ }^{2012}$ | \$11.00 | \$ 832,00 | 10 189\% | 813 |
| 2013 | \$11,00 | \$13200 | 10.16\% | 8 |
| 2014 | \$11.00 | stax $0^{3}$ | 10.19\% | 34 |
| 2045 | \$11,00 | \$13200 | 10.96\% | 513 |
| ${ }_{2016}^{2018}$ | Stices | 813200 847200 | $10.18{ }^{\text {P6 }}$ | 8313 |
| 2047 | ${ }^{511.50}$ | ${ }^{1332000}$ | 10.30\% | 53 |
| 2018 | 51100 | ${ }^{8132.20}$ | 10, 18\% | 83 |
| 2019 | 514.30 | \$133.00 | $10.88 \%$ | ${ }^{313}$ |
| 2029 | sil.00 | st3,39 | 10.18\% | 8 |
| 2081 3822 | S11.00 | \$132.06 | 1019\%\% | 813 |
| ${ }_{2023}^{2023}$ | ${ }_{\text {Sta }}^{511,000}$ | ¢ | \% $10.15 \%$ | 313 813 |
| 202\% | sti.00 | \$322.00 | 10.6\%\% | \$3 |
| 2835 | \$1,30 | \$132.00 | 10 18\% | 8 \% |
| 2026 | \$11,00 | \$13200 | 10.18\% | 13 |
| 2022 | \$11,00 | St3200 | 10, $18 \%$ | 843 |


| Investment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | ${ }^{5}$ |  | 1 | - 8 | \%\%8 |
|  | Supply | Doverpment | Secrice |  | Totel | Cost | Ratio of Therms | Inwssmam |
| rear | S | Msin | S | Seters | Imestrust | atpot | Canmmat to Total | ring Cost |
| 2008 | s100 | 5s,00 | sma | 8307 | .867 | $7.82 \%$ | ${ }^{10.18 \%}$ |  |
| 2010 | 997 | 5488 | 8924 | 3284 | 51.001 | 7.92\% | 12.8\%\% | 514 |
| 2011 | ${ }^{584}$ | 5472 | ${ }^{\text {s8eg }}$ | \$2620 | 31,37 | 7.82\% | to 16\% | 5 |
| 2012 | s91 | 3458 | \$955 | 5270 | ${ }^{21.874}$ | $782 \%$ | 10.149\% | 19 |
| 2013 | \$86 | \$495 | 623 | \$229 | 37,615 | 782\% | 10.10\% | 5 |
| 2974 | ses | S432 | 9792 | ${ }^{5248}$ | 51.55 | 764\% | 10.18\% | ${ }^{112}$ |
| 2315 | ${ }_{593}$ | 4419 | \%ea | 5238 | \$1.502 | $782 \%$ | 10.16\% | \$22 |
| 2016 | 304 | \$407 | ${ }^{\text {s733 }}$ | 5228 | 81.448 | 7.02\% | 10.64\% | 84 |
| 2017 | ${ }^{37}$ | 5385 | s7es | ${ }^{3218}$ | 31,397 | 7020 | 10.385\% | sf |
| 2016 | ${ }^{37 \%}$ | ${ }^{3} 384$ | Sera | 5789 | 51,488 | 7.82\% | 10.19\%\% | 8 |
| 2919 | \$7\% | 5373 | ${ }_{\text {sesz }}$ | 3000 | 5,360 | 7.62\% | 10.128\% | ${ }^{1}$ |
| 2020 | 873 | \$362\% | 3827 | 5192 | st.2.34 | 789\% | 10.18\% | 848 |
| 2021 | \% | 5352 | 3603 | ${ }^{\text {stax }}$ | \$1,270 | 7 7.24\% | 10.165\% | *9 |
| 2022 | ${ }^{818}$ | 5 | \%56\% | 8178 | 85,16\% | $7.62 \%$ | 10.tex ${ }^{\text {a }}$ | ${ }^{59}$ |
| 2202 | 587 | 5332 | 3588 | 8169 | 5t,128 | 7.62\% | 10.18\% | s8 |
| ${ }^{2624}$ | 8 85 | 5222 | 8537 | 516 | 51,688 | 7.824 | 10.15\% | 8 |
| 2025 | ${ }_{583}$ | $53 \times 3$ | 5517 | 3155 | 3:cas | 7.02\% | 90. 8 \%\%\% | \$8 |
| ${ }^{2298}$ | 501 |  | 3487 | S148 | 81,40 | $782 \%$ | 10.18\% | ${ }^{56}$ |
| 2327 | \$59 | 58 | 347\% | \$142 | 88i/4 | тe\%\% | 10.16\% | ss |
| 2028 | ${ }_{357}$ | 3888 | 5460 | 8136 | Sil39 | 76\% | 1916\% | 57 |

Table 4

| Incremental Castomer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | $\stackrel{3}{3}$ | -4. | 5=34 | 8 | - 3 | 8.687 | 638 |
|  | Mentaty | Amuat | Rxict Thems to | Annuat Rata | ${ }^{\text {anmuat }}$ | Fatal yhems to | Antuat Matio | Tolas Incermeratai |
| Yaes | Adrn Cost | Adm cost | Teata Corsumet |  | $\frac{084}{5085}$ | Yolal Consumad. | osescost | Adm $\frac{3}{4}$ |
| 8008 | \$1.98 | ${ }_{3}^{3,4}$ | 10.25\% | 52.44 | 81823 | \% $70.16 \%$ | 3 | ${ }_{8}^{46}$ |
| 200 | 5200 | S24 | 10.488 |  | \$8932 | 10.10\% | \$2 | 84 |
| 204 | 52.02 | ${ }_{5}^{324}$ | 10, 10 \% | 52.44 | S19,54 | $10.46 \%$ | ${ }_{52}$ | ${ }_{54}^{54}$ |
| ${ }^{2012}$ | 5204 | 524 | 10.14\% | 82,44 | 51981 | 10.48\% | 52 | 54 |
| ${ }_{2014}^{2013}$ | 52.80 | 825 | ${ }^{10.189 \%}$ | ${ }^{32} 84$ | 518.31 | 10, ${ }^{\text {en \% }}$ | 52 | ${ }_{5}^{55}$ |
| 2014 | ${ }^{32} 208$ | ${ }^{235}$ | 10.488 | ${ }^{32} 254$ | 520.11 | 10.18\% | 82 | ${ }^{55}$ |
| 2015 | \$2.10 | ${ }_{5} 52$ | ${ }^{10.109 \%}$ | $\stackrel{32.54}{ }$ | \$293, | 10.00\% | 32 | s5 |
| 2016 | 52.12 | 325 | 10.19\%6 | 3254 | \%205: | 10. 166 | 8 | 56 |
| 2097 | ${ }^{52,24}$ | ${ }_{580}^{58}$ | 10.850 | s2.84 | searz | +0.30\% | 5 | ${ }^{55}$ |
| 2048 | 52.17 | 526 | 10.30\% | 52.84 | 52082 | 63.4\%\% | 52 | 5 |
| 2018 | 52.18 | ${ }^{528}$ | 10.198\% | 52.84 | \$21.13 | 10,8\%\% | 52 | 5 |
| 2020 | :227 | 327 | 10.40\% | 3274 | 521.34 | 1318\% | \$2 | 35 |
| ${ }^{2021}$ | \$223 | ${ }^{3} 7$ | 10.18\% | 9274 | ${ }^{521.56}$ | 10.10\% | \% | 55 |
| 2029 | 52.25 | 52 | 1019\% | 3274 | 5247 | 10.46\% | 52 | 5 |
| 2038 | 52.28 | ${ }^{23}$ | 10.50\% | 52.74 | 527.36 | 1019\% | \$2 | 55 |
| 2024 | 52.30 | ${ }^{32}$ | 40.60\% | 52.84 | 522.24 | 92.19\% | 52 | s |
| 2028 | \$2,32 | 58 | t0.15\% | s3.84 | 522.43 | 90.18\% | 52 | ${ }^{5}$ |
| ${ }^{2026}$ | ${ }^{32,4}$ | 328 | to.9e\% |  | 52758 | 10.16\% | ${ }_{52}$ | 85 |
| ${ }_{2020}^{2027}$ | ${ }_{52,3}$ | 旡 | 10, $10.10 \%$ \% |  |  | +10.16\% | \$22 | ¢5 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 23 |
|  | Themm | Cammodity 6 ar | Gus Supply |
| $\underset{ }{\text { Y max }}$ |  | Suppic cost | $\frac{\text { cost }}{532}$ |
| 20 | ${ }_{4}^{46}$ | Diven | (332 |
| 200 | 45 | somat | ${ }^{332}$ |
| 2013 | ${ }_{4}^{45}$ | ${ }_{50}^{50.7143}$ | ${ }_{3}^{32}$ |
| 2012 | 45 | 50.7212 | 393 |
| 2013 | 45 | ${ }^{507072048}$ | ${ }^{33}$ |
| ${ }_{2014}^{2014}$ | 45 | se. 385 | ${ }^{533}$ |
| 20.15 | 45 | 50.733 | ${ }^{333}$ |
| 2016 | 45 | ${ }^{\text {su }}$ | st |
| 2047 | 45 | \$0.7889 | 534 |
| 2048 | 45 |  | s* |
| 2019 | 45 | ${ }_{50} 7732$ | ${ }^{3}$ |
| ${ }^{2020}$ | 45 | 59.7810 | ${ }^{33}$ |
| ${ }^{2021}$ | 45 | 53.7888 | 335 |
| 2022 | 45 | 50862 | 336 |
| 2033 | 45 | 30.8048 | \$38 |
| ${ }^{2024}$ | 45 | 80.847 | 537 |
| 2028 | 45 | su.2208 | 337 |
| ${ }_{2027}^{2028}$ | ${ }_{4}^{4 .}$ | 50.2980 | 33? |
| ${ }_{2628} 202$ | 4 | So4t | 3988 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance O\&M | tOTAL BENEFITS | NG Equipment Cost | Propane Equipment \& installation Cost | NG Installation Cost | NG <br> Conversion Cost | NG Appliance O\&M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$508 | \$350 | \$60 | \$918 | 0 | \$0 | 0 | \$100 | \$60 | \$131 | \$140 | \$56 | \$457 |
| 2010 | 2 | \$509 | 0 | \$61 | \$570 | 0 | \$0 | 0 |  | \$61 | \$132 | \$140 | \$56 | \$359 |
| 2011 | 3 | \$511 | 0 | \$61 | \$572 | 0 | \$0 | 0 |  | \$61 | \$134 | \$110 | \$56 | \$360 |
| 2012 | 4 | \$512 | 0 | \$62 | \$574 | 0 | \$0 | 0 |  | \$62 | \$135 | \$110 | \$58 | \$362 |
| 2013 | 5 | \$514 | 0 | \$62 | \$576 | 0 | \$0 | 0 |  | \$62 | \$136 | \$110 | \$56 | \$364 |
| 2014 | 6 | \$515 | 0 | \$63 | \$578 | 0 | \$0 | 0 |  | \$63 | \$138 | \$110 | \$56 | \$368 |
| 2015 | 7 | \$517 | 0 | \$64 | \$580 | 0 | \$0 | 0 |  | \$64 | \$139 | \$110 | \$56 | \$368 |
| 2016 | 8 | \$518 | 0 | \$64 | \$582 | 0 | \$0 | 0 |  | \$64 | \$140 | \$110 | \$56 | \$370 |
| 2017 | 9 | \$519 | 0 | \$85 | \$584 | 0 | \$0 | 0 |  | \$65 | \$142 | \$140 | \$56 | \$372 |
| 2018 | 10 | \$521 | 350 | \$66 | \$937 | 421 | (\$659) | 239 |  | \$66 | \$143 | \$110 | \$56 | \$375 |
| 2019 | 11 | \$522 | 0 | \$66 | \$689 | 0 | \$0 | 0 |  | \$66 | \$145 | \$110 | \$56 | \$377 |
| 2020 | 12 | \$524 | 0 | \$67 | \$591 | 0 | \$0 | 0 |  | \$67 | \$146 | \$110 | \$56 | \$379 |
| 2021 | 13 | \$525 | 0 | \$68 | \$593 | 0 | \$0 | 0 |  | \$68 | \$148 | \$110 | \$56 | \$381 |
| 2022 | 14 | \$527 | 0 | \$68 | \$595 | 0 | \$0 | 0 |  | \$68 | \$149 | \$110 | \$56 | \$383 |
| 2023 | 15 | \$528 | 0 | \$69 | \$697 | 0 | \$0 | 0 |  | \$69 | \$150 | \$110 | \$56 | \$385 |
| 2024 | 16 | \$530 | 0 | \$70 | \$599 | 0 | \$0 | 0 |  | \$70 | \$152 | \$110 | \$56 | \$387 |
| 2025 | 17 | \$531 | 0 | \$70 | \$601 | 0 | \$0 | 0 |  | \$70 | \$153 | \$110 | \$56 | \$390 |
| 2026 | 18 | \$533 | 0 | \$71 | \$804 | 0 | \$0 | 0 |  | \$71 | \$155 | \$110 | \$56 | \$392 |
| 2027 | 19 | \$534 | 0 | \$72 | \$808 | 0 | \$0 | 0 |  | \$72 | \$157 | \$110 | \$56 | \$394 |
| 2026 | 20 | \$535 | 0 | \$72 | \$608 | 0 | \$0 | 0 |  | \$72 | \$158 | \$110 | \$56 | \$398 |
|  |  |  |  | Present Value of Bonefits | \$6,208 |  |  |  |  |  |  | Present Value of Costs |  | \$3,733 |
|  |  |  |  |  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.66 |

# Florida City Gas - AGDF Energy Conservation Fling 2009 Residential Propane Distribution System Conversion Program <br> Participants Test - Data 

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Storage Tank Water Heating |  |  |  |
| Exation Remes |  | 12.0 Demarion fate | 0.0\% |
| Osm Expene | 1.0\% | NG Fivel Rate | 1.0\% |
| LP Fuecors | \% | NG Sase Retee | 0.0\% |


| Propant Cost-Table 1 |  |  |  |  | Natural Gas Supply Cost- Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yam | Cost Pet Gation | Annum Gumbens | Tax Reste | Propane Cost | Year | Coet Per Them | Anneal Therms | Tex Pata | no cosat |
| A | E | c | 0 | Bre( $1+\mathrm{D}$ ) | A | B | c | 0 | B+CTI+0) |
| 2009 | \$2.5460 | 180 | 7.5\% | 8508 | 2009 | \$0.7000 | 170 | 10\% | 131 |
| 2010 | \$2.5533 | 186 | 7.5\% | 8509 | 2010 | \$0.7070 | 170 | 10\% | \$132 |
| 2011 | \$2.5605 | 186 | 7.3\% | \$819 | 2011 | 30.7141 | 170 | 10\% | *14 |
| 2012 | \$2.5678 | 186 | 7.5\% | \$512 | 2012 | S0.7212 | 170 | 10\% | \$138 |
| 2013 | \$2.5750 | 186 | 7.5\% | 5614 | 2013 | S0.7264 | 170 | 10\% | \$136 |
| 2014 | \$2.5923 | 186 | 7.5\% | \$515 | 2014 | \$0.7357 | 170 | 10\% | \$138 |
| 2015 | \$2.5006 | 186 | 7.5\% | 4617 | 2015 | \$0.7431 | 170 | 10\% | \$159 |
| 2016 | \$2.5988 | 186 | 7.5\% | 8818 | 2018 | \$0.7505 | 170 | 10\% | \$140 |
| 2017 | \$2.6041 | 186 | 7.5\% | 3510 | 2017 | \$0.7580 | 170 | 10\% | \$142 |
| 2015 | \$2.613 | 186 | 7.5\% | * 621 | 2016 | 50.7656 | 170 | 10\% | \$14 |
| 2018 | 52.546 | 186 | 7.5\% | \$122 | 2019 | 50.7732 | 170 | 10\% | \$148 |
| 2020 | \$2.6259 | 186 | 7.5\% |  | 2020 | 50.7810 | 170 | 10\% | \$148 |
| 2021 | \$2.6331 | 186 | 7.5\% | 8525 | 2021 | 50.7888 | 170 | 10\% | \$148 |
| 2020 | \$2.8404 | 1s8 | 7.5\% | 4627 | 2022 | 50.7987 | 170 | 10\% | \$149 |
| 208 | 20.3476 | 186 | 7.5\% | *528 | 2023 | 50,8044 | 170 | 10\% | \$100 |
| 2024 | \$2.6549 | 186 | 7.5\% | 8180 | 2024 | 30.8127 | 170 | 10\% | 5142 |
| 2025 | \$2.5622 | 186 | 7.5\% | \$631 | 2025 | 50.6209 | 170 | 10\% | \$153 |
| 208 | \$2.6094 | 186 | 7.5\% | *533 | 2026 | \$0.8890 | 470 | 10\% | \$15s |
| 2087 | \$2.8767 | 186 | 7.5\% | \$534 | 2027 | \$0.8373 | 170 | 10\% | \$157 |
| 2023 | \$2.8839 | 186 | 7.5\% | 5038 | 2028 | 50.8457 | 170 | 10\% | 5188 |


| Natural Gas Energy Charga - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yoar | Rember Par Therw | Ansual Thermit | Tex Rate | NG Cost |
| A | 8 | $c$ | 0 | $\mathrm{ECP}^{+}(1+\mathrm{O})$ |
| 2008 | 50.5884 | 170 | 10\% | \$110 |
| 2010 | \$0.5884 | 170 | 10\% | \$110 |
| 2041 | \$0.5884 | 170 | 10\% | \$110 |
| 2042 | 50.5884 | 470 | 10\% | \$110 |
| 2013 | 50.5984 | 170 | 10\% | \$110 |
| 2014 | 50.5884 | 170 | 10\% | 5110 |
| 2015 | \$0.5884 | 170 | 10\% | \$110 |
| 2016 | 50.5884 | 170 | 10\% | \$110 |
| 2047 | 50.5884 | 170 | 10\% | \$110 |
| 2018 | 50.5884 | 170 | 10\% | 8110 |
| 2019 | \$0.5884 | 170 | 10\% | $\$ 110$ |
| 2020 | \$0.5894 | 170 | 10\% | 8110 |
| 2021 | 50.5884 | 170 | 10\% | \$110 |
| 2022 | 50.5884 | 170 | 10\% | \$110 |
| 2023 | \$0.5884 | 170 | 10\% | $\$ 110$ |
| 2024 | 50.5884 | 170 | 10\% | \$110 |
| 2025 | 50.5884 | 170 | 10\% | \$110 |
| 202 | 50.588 | 470 | 10\% | $\$ 110$ |
| 2027 | 30.5884 | 170 | 10\% | $\$ 140$ |
| 2028 | 50.5884 | 770 | 10\% | \$110 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Monthly customer Charge | Cunnuen Charye | Applizure Therwas | $\begin{aligned} & \text { Totan: } \\ & \text { Annual } \end{aligned}$ Therme | $\begin{aligned} & \text { Fratio. } \\ & \text { Appltune to } \\ & \text { Total } \end{aligned}$ | Tex Rento | Pro-rimed Customer Change |
| A | E | $c$ | 0 | E | DE | 6 | Croremerizi |
| 2009 | \$11.00 | \$132.00 | 170 | 43 | 38.37\% | 10\% | ** |
| 2010 | \$11.00 | \$132.00 | 170 | 443 | 30.37\% | 10\% | \% |
| 2011 | \$11.00 | \$132.00 | 170 | 443 | 30.37\% | 10\% | sse |
| 2012 | \$11.00 | \$132.00 | 170 | 443 | 38.37\% | 10\% | sce |
| 2013 | \$11.00 | \$132.00 | 170 | 443 | 38.37\% | 10\% | 368 |
| 2014 | \$11.00 | \$132.00 | 170 | 443 | 36.37\% | 10\% | ${ }^{35}$ |
| 2015 | \$11.00 | \$132.00 | 170 | 43 | 30.37\% | 10\% | *5 |
| 2016 | \$11.20 | \$132.00 | 170 | 43 | 38.37\% | 10\% | 366 |
| 2017 | \$11.00 | \$132.00 | 170 | 443 | 38.37\% | 10\% | \$50 |
| 2018 | \$11.00 | \$132.00 | 170 | 43 | 38.37\% | 10\% | st |
| 2019 | \$11.00 | \$13200 | 170 | 443 | 30.37\% | 10\% | 888 |
| 2020 | \$11.00 | \$132.00 | 170 | 43 | 36.37\% | 10\% | 366 |
| 2021 | \$11.00 | \$132.00 | 170 | 44 | 36.37\% | 10\% | 956 |
| 2022 | \$11.00 | \$132.00 | 170 | 443 | 38.37\% | 10\% | \$65 |
| 2023 | \$11.00 | \$132.00 | 170 | 443 | 38.37\% | 10\% | 46\% |
| 2024 | \$11.00 | \$132.00 | 170 | 43 | 30.37\% | 10\% | \$0 |
| 2025 | \$11.80 | \$132.00 | 170 | 43 | 38.37\% | 10\% | * 6 |
| 208 | \$11.00 | \$132.00 | 170 | 43 | 38.37\% | 10\% | *st |
| 2027 | \$11.00 | \$13200 | 170 | 443 | 30.37\% | 10\% | \%06 |
| 2023 | \$11.00 | \$132.00 | 170 | 43 | 38.37\% | 10\% | \$5s |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Tankless Water Heating |


|  |  | Beneffts |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided <br> Propane Cost | NG Rebate | Avoided <br> Propane Appliance O\&M | TOTAL BENEFITS | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG <br> Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG Customer Charge | TOTAL costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thrus 6 | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$448 | \$450 | \$60 | \$958 | \$0 | \$0 | \$0 | \$100 | \$60 | \$116 | \$97 | \$51 | \$424 |
| 2010 | 2 | \$449 | 0 | \$81 | \$510 | 0 | so | 0 |  | \$61 | \$117 | \$97 | \$51 | \$328 |
| 2011 | 3 | \$451 | 0 | \$61 | \$512 | 0 | \$0 | 0 |  | \$61 | \$118 | \$97 | \$51 | \$328 |
| 2012 | 4 | \$452 | 0 | \$62 | \$514 | 0 | $\$ 0$ | 0 |  | \$62 | \$119 | \$97 | \$51 | \$329 |
| 2013 | 5 | \$453 | 0 | \$62 | \$616 | 0 | \$0 | 0 |  | \$62 | \$120 | \$97 | \$51 | \$331 |
| 2014 | 6 | \$455 | 0 | \$63 | \$618 | 0 | \$0 | 0 |  | \$63 | \$121 | \$97 | \$51 | \$333 |
| 2015 | 7 | \$456 | 0 | \$64 | \$620 | 0 | \$0 | 0 |  | \$64 | \$123 | \$97 | \$51 | \$335 |
| 2016 | 8 | \$457 | 0 | \$64 | \$521 | 0 | \$0 | 0 |  | \$64 | \$124 | \$97 | \$51 | \$337 |
| 2017 | 9 | \$458 | 0 | \$65 | \$523 | 0 | \$0 | 0 |  | \$65 | \$125 | \$97 | \$51 | \$339 |
| 2018 | 10 | \$460 | 0 | \$66 | \$526 | 0 | \$0 | 0 |  | \$66 | \$126 | \$87 | \$51 | \$341 |
| 2019 | 11 | \$461 | 0 | \$66 | \$527 | 0 | \$0 | 0 |  | \$65 | \$128 | \$97 | \$51 | \$342 |
| 2020 | 12 | \$462 | 0 | \$67 | \$529 | 0 | \$0 | 0 |  | \$67 | \$129 | \$97 | \$51 | \$344 |
| 2021 | 13 | \$463 | 0 | \$68 | \$531 | 0 | \$0 | 0 |  | \$68 | \$130 | \$97 | \$51 | \$346 |
| 2022 | 14 | \$465 | 0 | \$68 | \$533 | 0 | \$0 | 0 |  | \$68 | \$131 | \$97 | \$51 | \$346 |
| 2023 | 15 | \$466 | 0 | \$69 | \$635 | 0 | \$0 | 0 |  | \$69 | \$133 | \$97 | \$51 | \$350 |
| 2024 | 16 | \$467 | 0 | \$70 | \$637 | 0 | so | 0 |  | \$70 | \$134 | \$97 | \$51 | \$352 |
| 2025 | 17 | \$469 | 0 | \$70 | \$539 | 0 | \$0 | 0 |  | \$70 | \$135 | \$97 | \$51 | \$364 |
| 2026 | 18 | \$470 | 0 | \$71 | \$6.41 | 0 | \$0 | 0 |  | \$71 | \$137 | \$97 | \$51 | \$356 |
| 2027 | 19 | \$471 | 0 | \$72 | \$643 | 0 | \$0 | 0 |  | \$72 | \$138 | \$97 | \$51 | \$358 |
| 2028 | 20 | \$472 | 450 | \$72 | \$905 | 1,219 | (\$1,746) | 527 |  | \$72 | \$140 | \$97 | \$51 | \$361 |
|  |  |  |  | Present Valua of Berultas | \$6,634 |  |  |  |  |  |  | Present Value of Costm |  | \$3,402 |
|  |  |  |  |  |  |  |  |  |  |  | Benefiticosi Ratio |  | 1.66 |

# Fiorida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Data 



| Propane Cost-Table 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yaur | conll Par Comilion | Armaxat Gublons | Tax Rata | Propane Cont |
| , | 8 | c | D | Ectidit |
| 2009 | \$2.5480 | 164 | 7.5\% | \$4* |
| 2010 | \$2.5533 | 18 | 7.5\% | 149 |
| 2011 | 52.5605 | 164 | 7.5\% | 541 |
| 2012 | 52.5878 | 164 | 7.5\% | \$482 |
| 2013 | \$20.5750 | 164 | 7.5\% | Has |
| 2014 | \$2.5823 | 184 | 7.5\% | 4465 |
| 2015 | \$2.588\% | 184 | 7.5\% | 4** |
| 2018 | 52.5989 | 164 | 7.5\% | 407 |
| 2017 | \$2.5041 | 184 | 7.5\% | H5s |
| 2018 | 52.8113 | 184 | 7.5\% | 4100 |
| 2019 | \$2.6188 | 184 | 7.5\% | \$481 |
| 2020 | \$2.8259 | 184 | 7.5\% | \$162 |
| 2021 | \$2. 6331 | 184 | 7.5\% | 1463 |
| 2022 | \$2.3404 | 184 | 7.5\% | 445 |
| 2023 | 52.8476 | 164 | 7.5\% | 446 |
| 2024 | \$2.654 | 184 | 7.5\% | 869 |
| 2025 | 52.3622 | 184 | 7.5\% | 4 mas |
| 2028 | 32.3694 | 184 | 7.5\% | \$40 |
| 2027 | 52.8767 | 184 | 7.5\% | H71 |
| 2028 | \$2.6839 | 184 | 7.5\% | \$472 |


| Natuan Gas Supply Cost-Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| year | $\begin{gathered} \text { Cont pent } \\ \text { Themer } \end{gathered}$ | Amnuef Themens | Tax Reta | naccant |
| A | - | c | 0 | $\mathrm{BrC}(4+\mathrm{O})$ |
| 2009 | 50.7000 | 150 | 10.0\% | \$118 |
| 2040 | \$0.7070 | 150 | 10.0\% | 8417 |
| 2041 | 50.7141 | 150 | 10.0\% | 518 |
| 2042 | 50.7242 | 150 | 10.0\% | \$419 |
| 2043 | \$0.7284 | 150 | 10.0\% | \$120 |
| 2014 | 50.7357 | 150 | 10.0\% | \$121 |
| 2015 | 80.7431 | 150 | 10.0\% | \$123 |
| 2018 | \$0.7505 | 450 | 10.0\% | \$124 |
| 2017 | \$0.7580 | 150 | 10.0\% | 5126 |
| 2018 | 50.7658 | 150 | 10.0\% | 8128 |
| 2018 | *2.7732 | 150 | 10.0\% | \$128 |
| 2020 | \$0.780 | 150 | 10.0\% | \$128 |
| 2021 | \$0.7885 | 150 | 10.0\% | \$130 |
| 2022 | \$0.7967 | 450 | 10.0\% | \$134 |
| 2023 | 50.0048 | 150 | 10.0\% | \$133 |
| 2024 | 50.8127 | 150 | 10.\% | 314 |
| 2025 | 80.8208 | 150 | 10.0\% | 8138 |
| 2026 | \$0.8280 | 150 | 10.0\% | \$137 |
| 2027 | \$0.8373 | 150 | 10.0\% | \$138 |
| 2028 | \$0.8457 | 150 | 10.0\% | \$100 |


| Natural Gas Energy Charge - Tathe 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {rear }}$ | $\underset{\substack{\text { Ramber } \\ \text { Therm }}}{ }$ | Annue: Thernes | Tax Rata | nacont |
| A | B | c | D | Bratiol |
| 2008 | 50.588 | 150 | 10.0\% | 18 |
| 2010 | 50,5884 | 150 | 10.0\% | 497 |
| 2014 | 50.5884 | 150 | 10.0\% | 597 |
| 2012 | \$0.5884 | 150 | 10.0\% | 397 |
| 2013 | 50.5889 | 150 | 10.0\% | 597 |
| 2014 | \$0.5884 | 150 | 10.0\% | $\$ 07$ |
| 2015 | 50.5864 | 150 | 10.0\% | 597 |
| 2018 | \$0.5884 | 150 | 10.0\% | 897 |
| 2017 | \$0.5884 | 150 | 10.0\% | 307 |
| 2018 | \$0.5884 | 150 | 10.0\% | 47 |
| 2019 | \$0.5884 | 150 | 10.0\% | 597 |
| 2020 | *0584 | 150 | 10.0\% | 897 |
| 2021 | \$0.s8ba | 150 | 10.0\% | 597 |
| 2023 | \$0.5884 | 150 | 10.0\% | ${ }^{89}$ |
| 2023 | \$0.5884 | 150 | 10.0\% | 897 |
| 2024 | 50.5884 | 150 | 10.0\% | 897 |
| 2025 | 20.5804 | 150 | 10.0\% | 397 |
| 2026 | \$0.5884 | 150 | 10.0\% | 597 |
| 2027 | \$0.5884 | 150 | 10.0\% | 897 |
| 2028 | \$0.5884 | 150 | 10.0\% | \$97 |


| Natural Gas Customor Charge- Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ymar | $\begin{aligned} & \text { Mortitury } \\ & \text { customeer } \\ & \text { Chempe } \end{aligned}$ | $\begin{aligned} & \text { Annual } \\ & \text { Customer } \\ & \text { Charge } \end{aligned}$ | Appallanct Atnan! Therm | $\begin{aligned} & \text { Totan } \\ & \text { Anpunt } \\ & \text { Themerss } \end{aligned}$ | $\begin{aligned} & \text { Musto. } \\ & \text { Appilimence to } \\ & \text { Toterf } \end{aligned}$ | Tax Rato | Pro-finted Custroner Chare* |
| A | B | c | - | E | DE | G | ctiperatiz |
| 2009 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | 83 |
| 2010 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | * 8 |
| 2014 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.09\% | 81 |
| 2012 | \$11.00 | \$332.00 | 150 | 423 | 35.46\% | 10.0\% | 861 |
| 2013 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | 831 |
| 2014 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | t0.0\% | \$61 |
| 2015 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | \$61 |
| 2018 | \$11.00 | \$132.00 | 150 | 43 | 35.46\% | 10.0\% | \$51 |
| 2017 | \$11.00 | \$ $\$ 32.00$ | 150 | 423 | 35.46\% | 10.0\% | 551 |
| 2018 | \$11.00 | \$132.00 | \$50 | 423 | 35.46\% | 10.0\% | 831 |
| 2019 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 100\% | * 61 |
| 2020 | \$11.00 | \$132.00 | 150 | 423 | 35.40\% | 10.0\% | 361 |
| ${ }^{2021}$ | \$14.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | 361 |
| 2022 | \$1400 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | 381 |
| 2023 | \$11.00 | \$132.00 | 150 | 423 | 35.40\% | 10.0\% | 81 |
| 2024 | \$11.00 | \$132.00 | \$50 | 423 | 35.46\% | 10.0\% | *61 |
| 2025 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | 361 |
| 2028 | \$11.00 | \$132.00 | 150 | 423 | 35.40\% | 10.0\% | 561 |
| 2027 | \$11.00 | \$132.00 | 150 | 423 | 35.46\% | 10.0\% | 561 |
| 2028 | \$1100 | \$132.00 | 150 | 483 | 35.46\% | 10.0\% | 551 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |


|  |  | Beneflts |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propane Cosi | NG Rebate | Avoided Propane Appliance O8M | total BENEFITS | NG Equipment Cost | Propane Equipment \& instalation Cost | NG Installation Cost | NG Conversion Cost | NG Applance O \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$532 | \$350 | \$270 | \$1,152 | \$0 | 0 | \$0 | \$100 | \$270 | \$137 | \$115 | \$58 | \$601 |
| 2010 | 2 | \$533 | 0 | \$273 | \$809 | 0 | 0 | 0 |  | \$273 | \$138 | \$115 | \$58 | \$585 |
| 2011 | 3 | \$535 | 0 | \$275 | \$810 | 0 | 0 | 0 |  | \$275 | \$140 | \$115 | \$58 | \$589 |
| 2012 | 4 | \$536 | 0 | \$278 | \$815 | 0 | 0 | 0 |  | \$278 | \$141 | \$115 | \$58 | \$593 |
| 2013 | 5 | \$538 | 0 | \$281 | \$819 | 0 | 0 | 0 |  | \$281 | \$143 | \$115 | \$58 | \$687 |
| 2014 | 6 | \$539 | 0 | \$284 | \$823 | 0 | 0 | 0 |  | \$284 | \$144 | \$115 | \$58 | \$601 |
| 2015 | 7 | \$541 | 0 | \$287 | \$828 | 0 | 0 | 0 |  | \$287 | \$145 | \$115 | \$58 | \$606 |
| 2016 | 8 | \$542 | 0 | \$289 | \$832 | 0 | 0 | 0 |  | \$289 | \$147 | \$115 | \$58 | \$810 |
| 2017 | 9 | \$544 | 0 | \$292 | \$836 | 0 | 0 | 0 |  | \$292 | \$148 | \$115 | \$58 | \$814 |
| 2018 | 10 | \$545 | 0 | \$295 | \$841 | 0 | 0 | 0 |  | \$295 | \$150 | $\$ 115$ | \$58 | \$619 |
| 2019 | 11 | \$547 | 0 | \$298 | \$845 | 0 | 0 | 0 |  | \$298 | \$151 | \$115 | \$58 | \$623 |
| 2020 | 12 | \$548 | 0 | \$301 | \$850 | 0 | 0 | 0 |  | \$301 | \$153 | \$115 | \$58 | \$828 |
| 2021 | 13 | \$550 | 0 | \$304 | \$854 | 0 | 0 | 0 |  | \$304 | \$154 | \$115 | \$58 | \$832 |
| 2022 | 14 | \$552 | 0 | \$307 | \$858 | 0 | 0 | 0 |  | \$307 | \$156 | \$115 | \$58 | \$837 |
| 2023 | 15 | \$553 | 0 | \$310 | \$833 | 0 | 0 | 0 |  | \$310 | \$158 | \$115 | \$58 | \$641 |
| 2024 | 16 | \$555 | 0 | \$313 | \$888 | 0 | 0 | 0 |  | \$313 | \$159 | \$115 | \$58 | $\$ 846$ |
| 2025 | 17 | \$556 | 0 | \$317 | \$873 | 0 | 0 | 0 |  | \$317 | \$161 | \$115 | \$58 | \$651 |
| 2026 | 18 | \$558 | 350 | \$320 | \$1,227 | 2,882 | $(4,657)$ | 1,775 |  | \$320 | \$162 | \$115 | \$58 | 5658 |
| 2027 | 19 | \$559 | 0 | \$323 | \$882 | 0 | 0 | 0 |  | \$323 | \$164 | \$115 | \$58 | \$860 |
| 2028 | 20 | \$561 | 0 | \$326 | \$887 | 0 | 0 | 0 |  | \$326 | \$166 | \$115 | \$58 | \$665 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.41 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution Systern Conversion Program Participants Test - Data

| Appliance Type |  |  |
| :---: | :---: | :---: |
| Heating System |  |  |
| Eccatation Retes |  | LP Demmarin Rate |
| Оом Eqperse | 1.0\% | NG Fuel Rate |
| $\llcorner$ fuel Cost | 1.0\% | No Base Rates |


| Propane Cost - Table 1 |  |  |  |  | Natural Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cost Per | Annual Gations | Tan Reste | $\begin{aligned} & \text { Propane } \\ & \text { Cost } \end{aligned}$ | Year | Cost Per Therm | Annual Therms | Tax Raste | NG Cost |
| A | B | c | D | $\mathrm{B}^{\cdot} \mathrm{C}^{( } \cdot(1+\mathrm{D})$ | A | B | c | 0 | $8 \cdot C *(1+0)$ |
| 2009 | \$2.5460 | 194 | 7.5\% | $\$ 632$ | 2009 | \$0.7000 | 178 | 10\% | \$197 |
| 2010 | \$2.5533 | 194 | 7.5\% | \$633 | 2010 | \$0.7070 | 178 | 10\% | \$138 |
| 2011 | \$2.5605 | 194 | 7.5\% | $\$ 635$ | 2011 | \$0.714 | 178 | 10\% | \$140 |
| 2012 | \$2.5678 | 194 | 7.5\% | \$as3 | 2012 | \$0.7212 | 178 | 10\% | \$149 |
| 2013 | \$2.5750 | 194 | 7.5\% | \$539 | 2013 | \$0.7884 | 178 | 10\% | \$143 |
| 2014 | \$2.5823 | 194 | 7.5\% | \$539 | 2014 | \$0.7357 | 178 | 10\% | \$144 |
| 2015 | \$2.5898 | 194 | 7.5\% | Ss41 | 2015 | \$0.7431 | 178 | 10\% | \$145 |
| 2016 | \$2.5968 | 194 | 7.5\% | \$542 | 2016 | \$0.7505 | 178 | 10\% | \$147 |
| 2017 | \$2.6041 | 194 | 7.5\% | \$64 | 2017 | \$0.7580 | 178 | 10\% | \$148 |
| 2018 | \$2.6113 | 194 | 7.5\% | \$548 | 2016 | \$0.7856 | 178 | 10\% | \$180 |
| 2019 | \$2.6186 | 194 | 7.5\% | \$547 | 2019 | \$0.7732 | 178 | 10\% | \$151 |
| 2020 | \$2.625 | 194 | 7.5\% | $\$ 548$ | 2020 | \$0.7810 | 178 | 10\% | \$183 |
| 2021 | \$2.6331 | 194 | 7.5\% | \$560 | 2021 | \$0.7888 | 178 | 10\% | \$154 |
| 2022 | \$2.8404 | 194 | 7.5\% | \$662 | 2022 | \$0.7997 | 178 | 10\% | \$158 |
| 2023 | 52.5478 | 194 | 7.5\% | 5653 | 2023 | \$0.8048 | 178 | 10\% | 8188 |
| 2024 | \$2.6549 | 194 | 7.5\% | \$685 | 2024 | \$0.8127 | 178 | 10\% | \$159 |
| 2025 | 52.8622 | 194 | 7.5\% | \$558 | 2025 | \$0.8200 | 178 | 10\% | \$181 |
| 2026 | \$2.669 | 194 | 7.5\% | \$658 | 2028 | \$0.8290 | 178 | 10\% | \$152 |
| 2027 | \$2.6767 | 194 | 7.5\% | \$659 | 2027 | \$0.8373 | 178 | 10\% | \$144 |
| 2028 | \$2.8839 | 194 | 7.5\% | \$681 | 2028 | \$0.8457 | 178 | 10\% | \$188 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Resta Per Therm | Annual Therms | Tex Rate | ng cost |
| A | 8 | $c$ | D | $\mathrm{BC}^{+0}(1+\mathrm{O})$ |
| 2000 | \$0.5884 | 178 | 10\% | 8115 |
| 2040 | 50.5884 | 178 | 10\% | 8115 |
| 2011 | 50.5884 | 178 | 10\% | \$115 |
| 2012 | \$0.5884 | 178 | 10\% | \$115 |
| 2013 | \$0.5884 | 178 | 10\% | \$115 |
| 2014 | 50.5884 | 178 | 10\% | 8115 |
| 2015 | 50.5884 | 178 | 10\% | 8115 |
| 2018 | \$0.5884 | 178 | 10\% | 8115 |
| 2017 | \$0.5884 | 178 | 10\% | 8115 |
| 2018 | 30.5884 | 178 | 10\% | \$118 |
| 2019 | 50.5884 | 178 | 10\% | \$115 |
| 2020 | 50.5884 | 178 | 10\% | 8118 |
| 2021 | 50.5884 | 178 | 10\% | \$115 |
| 2022 | 50.5884 | 178 | 10\% | \$115 |
| 2023 | \$0.5884 | 178 | 10\% | 8115 |
| 2024 | 50.5884 | 178 | 10\% | 8115 |
| 2025 | 50.5884 | 178 | 10\% | 8115 |
| 2028 | \$0.5884 | 178 | 10\% | 8115 |
| 2027 | \$0.5884 | 178 | 10\% | \$115 |
| 2028 | 50.5884 | 178 | 10\% | \$115 |


| Netural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Montrly Cuntormer Charge | Annuat <br> $\begin{array}{c}\text { Customer } \\ \text { Charge }\end{array}$ | $\begin{gathered} \text { Appllunce } \\ \text { Annual } \\ \text { Theminis } \end{gathered}$ | Total Ampual Therms | $\begin{aligned} & \text { Retio: } \\ & \text { Appltence to } \\ & \text { Total } \end{aligned}$ | Tax Rate | Pro-Rated Custmener Cherge |
| A | B | c | 0 | E | DIE | 6 |  |
| 2009 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | \$ss |
| 2010 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 858 |
| 2091 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 558 |
| 2012 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | \$58 |
| 2013 | \$11.00 | \$132.00 | 178 | 43 | 40.18\% | 10\% | \$58 |
| 2014 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | \$58 |
| 2015 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 858 |
| 2016 | \$11.00 | \$132.00 | 178 | 43 | 40.18\% | 10\% | 558 |
| 2017 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 880 |
| 2018 | \$11.00 | \$132.00 | 178 | 43 | 40.18\% | 10\% | 858 |
| 2019 | \$11.00 | \$132.00 | 178 | 43 | 40.18\% | 10\% | \$08 |
| 2020 | \$11.00 | \$132.00 | 176 | 43 | 40.18\% | 10\% | 858 |
| 2021 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | \$88 |
| 2022 | \$11.00 | \$132.00 | 178 | 43 | 40.18\% | 10\% | 158 |
| 2023 | \$11.00 | \$132.00 | 178 | 43 | 40.18\% | 10\% | 858 |
| 2024 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 888 |
| 2025 | \$11.00 | \$132.00 | 178 | 443 | 40.19\% | 10\% | 856 |
| 2028 | \$19.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 158 |
| 2027 | \$11.00 | \$132.00 | 178 | 43 | 40.19\% | 10\% | 858 |
| 2028 | \$11.00 | \$132.00 | 178 | 443 | 40.18\% | 10\% | 850 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Clothes Drying |


|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided <br> Propane Cost | NG Rebate | Avoided Propane Appliance O\&M | rotal BENEFTTS | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$149 | \$100 | \$60 | \$309 | $\$ 0$ | \$0 | $\$ 0$ | \$100 | \$60 | \$39 | \$32 | \$16 | \$247 |
| 2010 | 2 | \$150 | 0 | \$81 | \$210 | 0 | \$0 | 0 |  | \$61 | \$39 | \$32 | \$16 | \$148 |
| 2011 | 3 | \$150 | 0 | \$61 | \$211 | 0 | \$0 | 0 |  | \$51 | \$39 | \$32 | \$16 | \$148 |
| 2012 | 4 | \$151 | 0 | \$62 | \$212 | 0 | \$0 | 0 |  | \$62 | \$40 | \$32 | \$16 | \$150 |
| 2013 | 5 | \$151 | 0 | \$62 | \$214 | 0 | \$0 | 0 |  | \$62 | \$40 | \$32 | \$16 | \$151 |
| 2014 | 6 | \$152 | 0 | \$63 | \$215 | 0 | \$0 | 0 |  | \$63 | \$40 | \$32 | \$16 | \$152 |
| 2015 | 7 | \$152 | 0 | $\$ 84$ | \$218 | 0 | \$0 | 0 |  | \$64 | \$41 | \$32 | \$16 | \$153 |
| 2016 | 8 | \$152 | 0 | \$64 | \$217 | 0 | \$0 | 0 |  | \$64 | \$41 | \$32 | \$16 | \$154 |
| 2017 | 9 | \$153 | 0 | \$65 | \$218 | 0 | \$0 | 0 |  | \$65 | \$42 | \$32 | \$16 | \$156 |
| 2018 | 10 | \$153 | 0 | \$66 | \$219 | 0 | \$0 | 0 |  | \$66 | \$42 | \$32 | \$16 | \$156 |
| 2019 | 11 | \$154 | 0 | \$66 | \$220 | 0 | \$0 | 0 |  | \$66 | \$43 | \$32 | \$16 | \$158 |
| 2020 | 12 | \$154 | 0 | \$67 | \$221 | 0 | \$0 | 0 |  | \$67 | $\$ 43$ | \$32 | \$16 | \$158 |
| 2021 | 13 | \$154 | 100 | \$68 | \$322 | 533 | (\$697) | 164 |  | \$68 | $\$ 43$ | \$32 | \$16 | \$180 |
| 2022 | 14 | \$155 | 0 | \$68 | \$223 | 0 | \$0 | 0 |  | \$68 | \$44 | \$32 | \$16 | \$181 |
| 2023 | 15 | \$155 | 0 | \$69 | \$224 | 0 | \$0 | 0 |  | \$69 | \$44 | \$32 | \$16 | \$182 |
| 2024 | 16 | \$156 | 0 | \$70 | \$225 | 0 | \$0 | 0 |  | \$70 | \$45 | \$32 | \$16 | \$163 |
| 2025 | 17 | \$156 | 0 | \$70 | \$227 | 0 | \$0 | 0 |  | \$70 | \$45 | \$32 | \$16 | \$164 |
| 2026 | 18 | \$157 | 0 | $\$ 71$ | \$228 | 0 | \$0 | 0 |  | \$71 | \$46 | \$32 | \$16 | \$165 |
| 2027 | 19 | \$157 | 0 | \$72 | \$229 | 0 | $\$ 0$ | 0 |  | 872 | \$46 | \$32 | \$16 | \$167 |
| 2028 | 20 | \$157 | 0 | \$72 | \$230 | 0 | \$0 | 0 |  | \$72 | \$47 | \$32 | \$16 | \$188 |
|  |  |  | Present Value of Benefite |  | \$2,288 |  |  |  |  |  |  | Pressent Vathe of Costs |  | \$1,810 |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { Benefit/Cost } \\ & \text { Ratio } \end{aligned}$ |  | 1.40 |

Florida City Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Data


| Propane Cosi- Tathe 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yans | $C_{\text {Cost Par }}$ | Annual Gallons | rax Rath | Propane Comy |
| A | 8 | c | D | $8{ }^{\circ} \mathrm{C}(1+8)$ |
| 2003 | 52.5460 | 55 | 7.5\% | \$14 |
| 2010 | \$2.5533 | 5 | 7.5\% | \$150 |
| 2011 | \$2.5605 | 53 | 7.5\% | \$150 |
| 2012 | \$2.5678 | 58 | 7.5\% | \$151 |
| 2013 | \$2.5750 | 55 | 7.5\% | 5151 |
| 2014 | \$2.5823 | 55 | 7.5\% | \$152 |
| 2015 | \$2.56\% | 55 | 7.5\% | \$152 |
| 2088 | \$2.5088 | 53 | 7.5\% | \$152 |
| 2017 | \$3. 6041 | 5 | 7.5\% | \$183 |
| 2018 | 22:313 | 55 | 7.5\% | \$153 |
| 2011 | 52.6186 | 55 | 7.5\% | \$154 |
| 2020 | \$2.2359 | \$5 | 7.5\% | \$154 |
| 2021 | \$2.6334 | 55 | 7.5\% | \$14 |
| 2022 | \$2.3404 | 55 | 7.5\% | \$188 |
| 2023 | \$28478 | 55 | 7.5\% | \$155 |
| 204 | \$2.6549 | 55 | 7.5\% | \$188 |
| 2025 | \$2.6622 | 55 | 7.5\% | \$188 |
| 2028 | \$28094 | 55 | 7.5\% | 515 |
| 2027 | \$2.8767 | 55 | 7.5\% | \$197 |
| 2028 | 52.6839 | 35 | 7.5\% | 357 |


| Naturat Oas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Coat Per Therm | Ansuat Thems | rax Ravem | wacont |
| A | a | $c$ | 0 | $\operatorname{BCO}^{+} \times 1+0$ |
| 2504 | \$0.7000 | 50 | 10\% | **9 |
| 2010 | 50.7070 | 50 | 10\% | 38 |
| 2011 | 50.744: | 50 | 10\% | * |
| 2012 | \$0.7212 | 50 | 10\% | \$4 |
| 2013 | \$0.7284 | 50 | 10\% | \$40 |
| 2014 | \$0.7357 | 50 | 10\% | 500 |
| 2015 | \$0.7431 | 50 | 10\% | 41 |
| 2016 | \$0.7505 | 50 | 10\% | 41 |
| 2017 | \$0.7880 | 50 | 10\% | 42 |
| 2018 | 50.7658 | 50 | 10\% | \$12 |
| 2019 | 50.733 | 50 | 10\% | \$43 |
| 2020 | \$0.7810 | 50 | 10\% | 34 |
| 2021 | \$0.7888 | 50 | 10\% | 44 |
| 2022 | \$0.7967 | 50 | 40\% | 4 |
| 2023 | \$0.8046 | 50 | 10\% | 34 |
| 2024 | \$0.8127 | 50 | 10\% | 546 |
| 2025 | 50.6206 | 50 | 10\% | 45 |
| 2028 | \$0.8290 | 50 | 10\% | * |
| 2027 | 50.8373 | 30 | 10\% | sut |
| 2028 | \$0.8457 | 50 | 10\% | 47 |


| Natural Gas Energy Charge-Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yoer |  Therm | Acmust <br> Thatms | Taxpas | Nacost |
| A | B | c | 0 | $\sec (1+0)$ |
| 2000 | \$0.5884 | 50 | 10\% | 33 |
| 2010 | \$0.5884 | 50 | 10\% | \$32 |
| 2014 | 50.5884 | 50 | 10\% | 022 |
| 2012 | 50.5884 | 50 | $10 \%$ | 33 |
| 2013 | \$0.5884 | 50 | $10 \%$ | $\$ 32$ |
| 2014 | 50.5884 | 50 | 10\% | $\$ 32$ |
| 2015 | \$0.5884 | 50 | 10\% | 532 |
| 2016 | \$0.5884 | 50 | 10\% | *32 |
| 2087 | 50.5884 | 50 | 10\% | *32 |
| 2018 | \$0.5884 | 50 | 10\% | 332 |
| 2019 | \$0.5884 | 50 | 10\% | \$32 |
| 2020 | 50.5894 | 50 | 10\% | \$32 |
| 2021 | \$0.5884 | 50 | 10\% | 532 |
| 2022 | 50.5884 | 50 | 10\% | 832 |
| 2023 | sa.s8e4 | 50 | 10\% | *32 |
| 2024 | \$0.5884 | 50 | 10\% | \$32 |
| 2025 | 50.5884 | 50 | 10\% | 532 |
| 2026 | 50.5884 | 50 | 10\% | \$32 |
| 2027 | 50.5884 | 50 | 10\% | 332 |
| 2028 | 50.5884 | 50 | 10\% | 332 |


| Natural Cas Customar Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Y mar | $\begin{aligned} & \text { Monthy } \\ & \text { Cumberser } \\ & \text { Chmerye } \end{aligned}$ |  | Applinne Annual Theorns | Total Amanual Teneres | $\begin{gathered} \text { Rentio - } \\ \text { Appllance to } \\ \text { Total } \end{gathered}$ | Tex Aate | Pro-fistad Chary |
| A | 8 | $c$ | D | E | De | G | Cribers $(1+$ +2) |
| 2000 | \$11.00 | \$13200 | 50 | 44 | 11.29\% | 10\% | $3+8$ |
| 2010 | \$11.00 | \$13200 | 50 | 443 | 1129\% | 10\% | \$18 |
| 2011 | \$11.00 | \$132.00 | 50 | 443 | 11.29\% | 10\% | ** |
| 2012 | \$11.00 | \$132.00 | 50 | 443 | 11.25\% | 10\% | \$4 |
| 2013 | \$11.00 | \$13200 | 50 | 443 | 11.29\% | 10\% | \$18 |
| 2014 | \$11.00 | \$13200 | 50 | 43 | 11.29\% | 10\% | \$18 |
| 2015 | \$11.00 | \$13200 | 50 | 443 | 15.28\% | 10\% | 118 |
| 2016 | \$11.00 | \$13200 | 50 | 443 | 11.23\% | 10\% | \$18 |
| 2017 | \$11.00 | \$132.00 | 50 | 443 | 17.29\% | 10\% | \$18 |
| 2018 | \$11.00 | \$132.00 | 50 | 443 | 11.29\% | 10\% | \$18 |
| 2019 | \$11.00 | \$132.00 | 50 | 413 | 11.29\% | 10\% | \$18 |
| 2020 | \$11.00 | \$132.00 | 50 | 443 | 11.29\% | 10\% | \$16 |
| 2021 | \$11.00 | \$132.00 | 50 | 443 | 11.29\% | 10\% | 516 |
| 2082 | \$11.00 | \$132.00 | so | 43 | 11.29\% | 10\% | \$16 |
| 2023 | \$11.00 | \$13200 | 50 | 443 | 11.298 | 10\% | 516 |
| 2024 | \$11.00 | \$132.00 | 50 | 443 | 11.28\% | 10\% | \$18 |
| 2025 | \$11.00 | \$132.00 | 50 | 43 | 11.29\% | 10\% | \$16 |
| 2026 | \$11.00 | \$132.00 | 50 | 443 | 11.28\% | 10\% | 318 |
| 2027 | \$11.00 | \$13200 | 50 | 443 | 11.28\% | 10\% | \$16 |
| 2028 | 311.00 | \$132.00 | 50 | 43 | 11.2\% | 10\% | 516 |

Florida City Gas - AGDF Energy Conservation Filing 2009

## Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Cooking |


|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yoar | Year Number | Avoided <br> Propane <br> Cost | NG Rebate | Avoided Propane Appliance O\&M | TOTAL genefits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG Customer Charge | тотаL costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thrue | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$134 | \$100 | \$60 | \$294 | \$0 | \$0 | \$0 | \$100 | \$60 | \$35 | \$29 | $\$ 15$ | \$239 |
| 2010 | 2 | \$135 | 0 | \$61 | \$195 | 0 | \$0 | 0 |  | \$61 | \$35 | \$29 | $\$ 15$ | \$139 |
| 2011 | 3 | \$135 | 0 | \$61 | \$196 | 0 | \$0 | 0 |  | \$61 | \$35 | \$29 | \$15 | \$140 |
| 2012 | 4 | \$136 | 0 | \$62 | \$197 | 0 | \$0 | 0 |  | \$62 | \$36 | \$29 | \$15 | \$141 |
| 2013 | 5 | \$136 | 0 | \$62 | \$198 | 0 | \$0 | 0 |  | \$62 | \$36 | \$29 | \$15 | \$142 |
| 2014 | 6 | \$136 | 0 | \$63 | 5199 | 0 | $\$ 0$ | 0 |  | \$03 | \$36 | \$29 | \$15 | \$143 |
| 2015 | 7 | \$137 | 0 | \$64 | \$200 | 0 | \$0 | 0 |  | \$64 | \$37 | \$29 | \$15 | \$144 |
| 2018 | 8 | \$137 | 0 | \$64 | 5201 | 0 | \$0 | 0 |  | \$84 | \$37 | \$29 | \$15 | \$146 |
| 2017 | 9 | \$138 | 0 | \$65 | \$202 | 0 | \$0 | 0 |  | \$65 | \$38 | \$29 | \$15 | \$146 |
| 2018 | 10 | \$138 | 0 | \$66 | \$204 | 0 | \$0 | 0 |  | \$66 | \$38 | \$29 | \$15 | \$147 |
| 2019 | 11 | \$138 | 0 | \$66 | \$205 | 0 | \$0 | 0 |  | \$66 | \$38 | \$29 | \$15 | \$146 |
| 2020 | 12 | \$139 | 0 | \$67 | \$206 | 0 | \$0 | 0 |  | \$67 | \$39 | \$29 | \$15 | \$149 |
| 2021 | 13 | \$139 | 0 | \$68 | \$207 | 0 | \$0 | 0 |  | \$68 | \$39 | \$29 | \$15 | \$151 |
| 2022 | 14 | \$139 | 0 | \$68 | \$208 | 0 | \$0 | 0 |  | \$68 | \$39 | \$29 | \$15 | \$152 |
| 2023 | 15 | \$140 | 100 | \$69 | \$309 | 637 | (\$805) | 167 |  | $\$ 69$ | \$40 | \$29 | \$15 | \$163 |
| 2024 | 16 | \$140 | 0 | \$70 | \$210 | 0 | \$0 | 0 |  | \$70 | \$40 | \$29 | \$15 | \$154 |
| 2025 | 17 | \$141 | 0 | \$70 | \$211 | 0 | \$0 | 0 |  | \$70 | \$41 | \$29 | \$15 | \$155 |
| 2026 | 18 | \$141 | 0 | \$71 | \$212 | 0 | \$0 | 0 |  | \$71 | $\$ 41$ | \$29 | \$15 | \$156 |
| 2027 | 18 | \$141 | 0 | \$72 | \$213 | 0 | \$0 | 0 |  | $\$ 72$ | 341 | \$29 | \$15 | \$157 |
| 2028 | 20 | \$142 | 0 | $\$ 72$ | \$214 | 0 | \$0 | 0 |  | \$72 | $\$ 42$ | \$29 | \$15 | \$158 |
|  |  |  |  | Prosent Valua - Bervelts: | \$2,103 |  |  |  |  |  |  | Present Value of Comts |  | \$1,522 |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Benefficost } \\ \text { Ratio } \end{gathered}$ |  | 1.38 |

# Florida City Gas - AGDF Energy Conservation Filing 2009 

## Residentlal Propane Distribution System Conversion Program

 Participants Test - Data

Reorder No. 5126 JULIUS BLUMBERG, INC.

NYC 10013

## Attachment 2.3

## Associated Gas Distributors of Florida Energy Conservation Program Petition Residential Propane Distribution System Conversion Program March, 2009

Florida Public Utilities Company
Rate Impact Measurement Test
Participants Test
Summary of RIM Test and Participants Test Results

|  | Proposed <br> Allowance |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |
| Participants Test |  | RIM Test |  |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

RIM Test - Results

```
Appliance Type
Storage Tank Water Heating
```

|  | Incremental <br> Revenue <br> Energy Charge | Incremental Revenue Cost of Gas | Incremental Revenue Cust. Charge | $\begin{gathered} \text { Total } \\ \text { Gas } \\ \text { Revenue } \end{gathered}$ | $\begin{aligned} & \hline \text { Gas } \\ & \text { Supply } \\ & \text { Cost } \end{aligned}$ | Investment Carrying Costs | Incremental Customer Costs | Program Cost | Total 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 thru9 |
| 2009 | \$94 | \$136 | \$37 | \$267 | \$136 | \$34 | \$22 | \$352.20 | \$545 |
| 2010 | \$94 | \$137 | \$37 | \$268 | \$137 | \$33 | \$23 | \$2.20 | \$195 |
| 2011 | \$94 | \$139 | \$37 | \$269 | \$139 | \$32 | \$23 | \$2.20 | \$198 |
| 2012 | \$94 | \$140 | \$37 | \$271 | \$140 | \$31 | \$23 | \$2.20 | \$197 |
| 2013 | \$94 | \$142 | \$37 | \$272 | \$142 | \$30 | \$23 | \$2.20 | \$197 |
| 2014 | \$94 | \$143 | \$37 | \$273 | \$143 | \$29 | \$23 | \$2.20 | \$198 |
| 2015 | \$94 | \$144 | \$37 | \$275 | \$144 | \$29 | \$24 | \$2.20 | \$199 |
| 2016 | \$94 | \$146 | \$37 | \$276 | \$146 | \$28 | \$24 | \$2.20 | \$200 |
| 2017 | \$94 | \$147 | \$37 | \$278 | \$147 | \$27 | \$24 | \$2.20 | \$201 |
| 2018 | \$94 | \$149 | \$37 | \$279 | \$149 | \$26 | \$24 | \$352.20 | $\$ 551$ |
| 2019 | \$94 | \$150 | \$37 | \$281 | \$150 | \$25 | \$25 | \$2.20 | \$203 |
| 2020 | \$94 | \$152 | \$37 | \$282 | \$152 | \$25 | \$25 | \$2.20 | \$204 |
| 2021 | \$94 | \$153 | \$37 | \$284 | \$153 | \$24 | \$25 | \$2.20 | \$204 |
| 2022 | \$94 | \$155 | \$37 | \$285 | \$155 | \$23 | \$26 | \$2.20 | \$206 |
| 2023 | \$94 | \$156 | \$37 | \$287 | \$156 | \$23 | \$26 | \$2.20 | \$207 |
| 2024 | \$94 | \$158 | \$37 | \$288 | \$158 | \$22 | \$26 | \$2.20 | \$208 |
| 2025 | \$94 | \$159 | \$37 | \$290 | \$159 | \$21 | \$26 | \$2.20 | \$209 |
| 2026 | \$94 | \$161 | \$37 | \$292 | \$161 | \$21 | \$26 | \$2.20 | \$210 |
| 2027 | \$94 | \$163 | \$37 | \$293 | \$163 | \$20 | \$27 | \$2.20 | \$212 |
| 2028 | $\$ 94$ | \$164 | \$37 | \$295 | \$164 | \$20 | \$27 | \$2.20 | \$213 |
| Present Value of Benefits |  |  |  | 52,716 | Present Value of Costs |  |  |  |  |
|  |  |  |  | \$2,453 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | BenefitCost Ratio |  | 1.11 |

# Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 

Residential Propane Distribution System Conversion Program

## RIM Test - Calculated Data

## Appliance Type

Storage Tank Water Heating

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tatie ${ }^{\text {a }}$ |  |  |  | ratic is |  |  |  |
| Revenue - Energy Charge |  |  |  | Revenue Cost of Gas |  |  |  |
|  |  |  |  | : | , | 4 | 73 |
| Yasar | Thems | Bumata | Totat cherse | ${ }_{6}$ | Yrems | Fwal Rate | cerargo |
| ${ }^{2009}$ |  | \$0.5811 |  | ${ }^{2009}$ | ${ }^{170}$ | 50.0000 |  |
| 2011 | 170 170 |  | ${ }_{594}$ | ${ }_{2011}^{2018}$ | 170 | ${ }_{5}^{35.8088691}$ | ${ }_{818} 813$ |
| 2012 | 7m | 50.5541 | sta | 2012 | 970 | 50,3842 | 5140 |
| 2013 | 170 | ${ }^{30.5511}$ | tad | ${ }^{2013}$ | 70 | 50.838 | \$142 |
| ${ }^{2014}$ | 170 | ${ }^{50.5811}$ | \$4 | 2014 | 40 | S0.8406 | 544 |
| $\underset{\substack{2045 \\ 2085}}{ }$ | 470 | voss ${ }^{\text {a }}$ | ${ }^{3} 4$ | 2015 | 170 | *0.3942 | ${ }^{5146}$ |
| ${ }_{2017}^{2015}$ | 170 <br> 470 <br> 10 | ${ }_{\substack{\text { a } \\ 80.5513}}$ | 5 | ${ }_{2015}$ | ${ }^{770}$ | \%0.957\% | 5148 |
| 2017 <br> 2018 <br> 180 | 178 770 | ${ }_{\substack{\text { \$0.5s511 } \\ \$ 0.5511}}$ | S94 | ${ }_{2018}^{2017}$ | 780 | stigeta | 5147 |
|  | 170 | ${ }^{40.5511}$ | 894 | 296 | 170 | ${ }_{\text {S0, } 063}$ | 8150 |
| 2020 | 170 | 50.554 | \$94 | 2029 | 170 | so.ares | \$4158 |
| ${ }^{2021}$ | ${ }^{170}$ | sostsy | 994 | 2021 | ${ }^{170}$ | \$0.0215 | 8143 |
| ${ }_{2023}^{2022}$ | 8 |  | 5944 | 2022 <br> 2023 <br> 023 | 179 | 50,305 | s14s |
| 2224 | 49 | *2.5541 | 354 | 2024 | 170 | ${ }_{30.8286}$ | ${ }_{\text {ctiss }}$ |
| 2025 | 170 | to.5s51 | 59 | 2025 | 170 | 80.2399 | 5138 |
| ${ }_{2027}^{2026}$ | $\begin{array}{r}170 \\ \hline 170\end{array}$ | ${ }_{\text {sos54 }}$ | \$94 | 2028 2027 | (170 |  | \$164 |
| 2028 | 177 | \$0,5691 | sma | 2025 | 130 | 50.96m | 5164 |



| micremental Custimer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% | 2 | 3 | 4 | ${ }_{5}^{5.584}$ | ${ }^{5}$ | $\square$ | $8 \pm 87$ | 5+8 |
|  |  |  | Retio Thems | Ammain Ratio | Ar\|ruja OWMCOA | Gatie Therms Te Fetal fonsumed | Ansuar Ratio | Twitatreremandal |
| ${ }^{\text {Year }}$ |  |  | $\frac{\text { Adan Cost }}{\text { Sin }}$ | Osescor |  |  |  |
| 200e | ${ }_{\substack{32.46 \\ 520}}$ |  |  | \% | Sti.13 | ${ }^{8,2937}$ | 3887\% | 81 | ${ }^{32}$ |
|  | 5 | ${ }^{288}$ | ${ }^{\text {3. 37\% }}$ | 17 | ${ }_{82} 8$ | ${ }^{3837 \%}$ |  |  |
| 2311 | 52.48 | ${ }^{528}$ | 38.3 | : 14.13 | 530,0 | 30.37\% | 512 | ${ }^{23}$ |
| 2912 | 52.47 | 530 | 32.3\% | 314.5\% | 830. | 39.73\% | 512 | ${ }^{33}$ |
| 2013 | \$2.50 | ${ }^{33}$ | 3\% $37 \%$ | 311.5? | 530.77 | ${ }^{3} 3$ | \$12 | 523 |
| 2016 | 52.58 | ${ }^{3} 8$ | 36.75\% | \$14.59 | 837.08 | 383\% 3 | 512 | 523 |
| 2015 | 5258 | 53 | 30.3\% | \$1120 | 831.38 | 3937\% | \$12 | 524 |
| ${ }^{2348}$ | 52.57 | \$3 | 38.3\% | 814.90 | 531.70 | 39,35\% | ${ }^{512}$ | 54 |
| 2017 | \$2.80 | ${ }^{31}$ | 34, $37 \%$ | 814.86 | 5828 | 38.37\% | 512 | ${ }^{32} 4$ |
| ${ }^{2018}$ | \$2.82 | ${ }^{3} 3$ | 3937\% | ${ }^{511.96}$ | \$32.34 | 38.30\%/4 | 812 | ${ }^{5} 4$ |
| 2079 | ${ }^{52.45}$ | ${ }^{32}$ | 38.7\% | 51228 | 532.46 | 39.3\%\% | 313 | s35 |
| ${ }^{2020}$ | 32388 | 53 | 36.3\% | \$12.2e | \$3, 39 | 38.37\% | ${ }^{813}$ | ${ }^{325}$ |
| ${ }^{2029}$ | 52.70 | 132 | 38.3\%\% | 512.28 | ${ }^{323} 32$ | $3839 \%$ | ${ }^{813}$ | 825 |
| 2022 | 3273 | 833 | 36.3\% | :12.38 | 5335 | 30.37\% | ${ }^{513}$ | ${ }^{326}$ |
| 2123 | ${ }_{52} 278$ | ${ }^{3} 3$ |  | \$2,288 | \$33.98 | 38,37\% | 513 | 526 |
| ${ }_{2024}$ | 32.79 | ${ }^{23}$ | 36,3\% | \$12,36 | 534.33 | $33.35 \%$ | 8n | ${ }^{526}$ |
| 2025 | 82.81 | sa | 36.37\% | \$13.06 | 534.07 | 38.37\% | 313 | s28 |
| 2028 | 52.94 | 53 | 36.3\%\% | E 3 3, ${ }^{\text {a }}$ | 533.02 | 38.37\% | 813 |  |
| ${ }^{3227}$ | S2.e9 | ${ }_{34} 3$ | 333\%\% | \$11.05 | $5_{5 \times 27}$ | 3.9.3\% | \$14 | ${ }_{57}^{37}$ |
| 2628 | 52000 | 345 | 3:3\%\% | 313, 3 | ss5.72 | 38.378 | 514 | 327 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2 | $\underline{3}$ | 2 |
|  | Therms | Gaxs Suppy | Gas Suprly |
| 208 | 170 | ${ }_{\text {R918 }}$ |  |
| ${ }^{2098}$ | 170 | Sese |  |
| 2014 | \% | 50ersa | 113\% |
| m: | \%0 | S0.6157 |  |
| 202 | 170 | 80.8242 | 140 |
| 2013 | 170 | 50.6325 | 192 |
| 2014 | 170 | Stis468 | 5143 |
| 2915 | ${ }^{79}$ | Sif 6482 | 8148 |
| 2018 | \%0 | soesy | 8146 |
| 2019 | ${ }^{780}$ | \$0.6853 | 8197 |
| 2016 | 170 | S0.77d 4 | 5148 |
| 2019 | ${ }^{70}$ | ta.8437 | 8158 |
| 2020 | ${ }^{770}$ | to. 8838 | \$138 |
| 2329 | \%0 | S0, mis | s133 |
| 2022 | 100 | S0910 | S15s |
| 2023 | 170 | 50.1.188 | 5156 |
| 2024 | ${ }^{70}$ | \$0.9288 | 168 |
| 2025 | 70 | \$0384 | 159 |
| ${ }^{2226}$ | 170 | 50.6474 | 164 |
| 2027 | \%7 | S0.bsa | ${ }^{1663}$ |
| 2ax | 8.80 | S0.868 | Hes |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

RIM Test - Results

## Appliance Type

Tankless Water Heating



Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

RIM Test - Results

| Appliance Type |
| :--- |
| Heating System |



## Appliance Type <br> Heating



| Investment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| : | 8 | 3 | 4 | 5 | ${ }_{6}$ | 7 | 8 | 67\% |
|  | Supply | Dovolemment | Serica |  | Total | cost | Failio of Ytarms | Investment |
| Vatat | ${ }^{\text {sam }}$ | Main | $4{ }^{4}$ | Mater | truesteot | ofoest | consurestor to | carcing coss |
| ${ }_{2010}^{2009}$ |  | S566\% | ${ }_{\substack{\text { 5318 } \\ 5309}}^{\text {518 }}$ | 8172 |  | ${ }^{8.123 / 3}$ | 40.19\% |  |
| 2010 2019 | ¢ | ( 5487 | \% | 85 | 51.05\% | $8.12 \%$ | 10.19\%\% | 385 |
| 20.2 | \$62 | 3468 | ${ }_{8 \times 26}$ | :56 | ${ }_{5 s \times 88}$ | 812\% | 6.10\% | 533 |
| 2013 | S00 | 5450 | \$279 | 8151 | \$970 | 8.12\% | 40.79\% | 332 |
| 2014 | sea | 5438 | 5270 | 5146 | 5842 | 8.12\% | 40.14\% | 531 |
| 2015 | ${ }^{565}$ | sa27 | 5261 | 3:4, | 548 | B.12\% | 40.19\% | ${ }^{539}$ |
| 2016 | sem | 5416 | s253 | 8,36 | 8 8x | 8.12\% | 40.80\% | 528 |
| 2017 | sar | sams | \%204 | ${ }^{1 / 32}$ | s804 | 8.12\% | 4.19\% | ${ }^{528}$ |
| ${ }^{2018}$ | s90 | s334 | 2238 | 5128 | 8839 |  | 40.1涭 | 527 |
| ${ }^{2019}$ | 5\%8 | 5384 | 5278 | 8124 | 5815 | 8.12\% | 40.19\% | ${ }^{527}$ |
| 2020 | 878 | \$374 | ${ }_{5222}$ | 8120 | 8772 | 8.12\% | 40.18\% | 326 |
| 2982 | ${ }^{376}$ | ${ }^{5364}$ |  | 8146 | 5789 | 8.12\% | 40.18\% | ${ }^{325}$ |
| 2022 | 372 | 5335 | \$228 | 512 | 5747 | 8.12\% | 40.18\% | ${ }^{324}$ |
| 2023 | 570 | 5348 | 8204 | 5108 | s725 | $8.12 \%$ | 40.18\% | ${ }^{324}$ |
| ${ }^{2024}$ | 368 | ${ }^{533}$ | \$198 | sita | ${ }^{3} \mathrm{mad}$ | 8. $12 \%$ | 40.18\% | 523 |
| 2025 | sto | \$328 | 8180 | \% 10 |  | ${ }^{8.12 \%}$ | 40.13\% | 322 |
| ${ }^{2026}$ | 384 | 5319 | S183 | \$96 | $\mathrm{sfen}^{4}$ | 8.12\% | 6088\% | 323 |
| 2027 | 562 | 5311 | 5177 | 325 | seas | 8.12\% | 40.18\% | 323 |
| $\underline{2088}$ | 580 | 5303 | S171 | 882 | t626 | $8{ }^{8}$ | 40.88\% | 520 |


| incrementai Cussomer Cosas |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | s | 4 | 5 53\% |  | 1 | ${ }^{3}-87$ | 5*8 |
|  |  |  |  | annaw Refio Ammai |  | Ratue Thems ${ }^{\text {To }}$ | Annual Refic | Toia imprembix |
| $\frac{\mathrm{r}_{\text {gax }}}{2089}$ |  |  |  | Andin, Cogt |  | $\frac{1}{40 a t}$ Conemped | $\frac{\text { O8M Cost }}{812}$ |  |
| 2010 | ${ }_{52,4}$ | ${ }_{8}^{3 \times 9}$ | 480.88 | \$11.eg | ${ }_{529.87}$ | ${ }_{4}^{40.15 \%}$ | ${ }_{812}$ | ${ }_{8} 8.4$ |
| 2011 | ${ }^{52} 2.45$ | 128 | $40.18 \%$ | \$11.65 | 830.15 | 40, 18\% | \$12 | ${ }^{3} 2$ |
| 2012 | 52.47 | 538 | 40.19\% | 512.05 | 830.97 | $40.15 \%$ | \$12 | 584 |
| 294 | \$2550 | 530 | $58.18 \%$ | 31205 | 530,77 | 40.18\% | \$12 | 524 |
| 2914 | 42.52 | 830 | 40.18\% | \$12.0s | 539.68 | $40.19 \%$ | \$12 | ${ }^{32}$ |
| 2015 | 52.35 | 53\% | 40.45\% | \$12.46 | 53:39 | 40.18\% | \$13 | 38 |
| 2916 | 32.37 | 33 | 40.19\% | \$12.46 | *3.720 | 45.te\% | 513 | sz |
| 2017 | \$200 | sat | 40.15\% | \$12.48 | *32.02 | 40, $18 \%$ | *13 | *25 |
| 2018 | 22,82 | 531 | 46.18\% | \$12.4\% | \$32,24 | 40.10\% | \$13 | \$25 |
| 2098 | ${ }^{22} 65$ | 332 | 46.18\% | \$12.56 | 532.68 | 40.18\% | 513 | 326 |
| 2020 | \$258 | 532 | 40 18\% | \$12.26 | \$32.60 | 49, 19\% | \$13 | 38 |
| 2021 | 33.70 | ${ }^{33}$ | $40.16 \%$ | \$12.85 | 533.32 | 40.89\% | \$13 | \$2\% |
| 2022 | 5373 | 533 | 42.18\% | \$1326 | 533.85 | 40.15\% | ${ }^{1 / 4}$ | ${ }^{32}$ |
| ${ }^{2023}$ | 8278 | ${ }^{33}$ | 40.18\% | 13.28 | ${ }^{53,99}$ | 40.189 | \$14 | ${ }^{527}$ |
| 2024 | 8278 | 23 | 4086 | \$13.2e | \$34.33 | 40.18\% | 514 | ${ }^{327}$ |
| 2025 | 52.81 | 53 | ${ }^{46} 1888$ | ${ }^{813.86}$ | ${ }^{33,87}$ | 4c. $18 \%$ | \$14 | ${ }^{238}$ |
| ${ }_{2026}^{2027}$ | 52.39 | 834 | 40.18\% | ${ }^{513.56}$ | ${ }_{535} 9.92$ | 40.16\% | 814 | 528 |
| ${ }_{2028}^{2027}$ |  | ${ }_{835}$ | ${ }^{40.76 \%}$ | \$81206 |  | ${ }_{4}^{48}$ | (1/4 | ( 328 |


| Gas costs |  |  |  |
| :---: | :---: | :---: | :---: |
| : |  | ${ }^{3}$ | 23 |
|  | Therms | Par Yearm | Gas Staply |
| Yaaz | 78 | supblverst | ${ }_{\text {cost }}$ |
| 2010 | ${ }_{78}$ | stemper | ${ }_{\text {stid }}$ |
| 2011 | 178 | 5:3x:41 | \$145 |
| 202 | 178 | 5 88242 | 8147 |
| 2013 | 178 | so.e325 | ${ }_{5}^{648}$ |
| 2074 | 178 | 50.8008 | ${ }_{\text {8159 }}$ |
| 2015 | ${ }^{76}$ | Soma92 | 8154 |
| 208 | \% | somst | 153 |
| 209 | 17 | suma | \$154 |
| ${ }^{2018}$ | ${ }^{778}$ | 80, 8748 | 8156 |
| 2048 | 176 | 30 8837 | 8157 |
| 2020 | ${ }^{178}$ | sa.6225 | 8159 |
| $2 \times 27$ | \% | st:025 | ${ }^{1681}$ |
| 2022 | \%8 | 50816 | 3162 |
| ${ }^{2023}$ | 788 | 30, | 514 |
| ${ }^{2024}$ | ${ }^{7} 9$ | somest | ${ }^{1885}$ |
| 2028 | ${ }^{176}$ |  | 8167 |
| ${ }^{2328}$ | ${ }^{178}$ | \$0,9694 | S1698 |
| 2027 | ${ }^{178}$ | Susbes | ${ }_{3172}$ |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009

## Residential Propane Distribution System Conversion Program <br> RIM Test - Results

## Appliance Type

Clothes Drying


## Appliance rype <br> Clothes Drying



|  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


|  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | 2 | 3 | incrememal Customat Costs |  |  |  |  | $5 \cdot 8$ |
|  | Hornty | Ammat | Rafio Thesms to | Annual Ratio | Annual | Faic: Therns 70 | Anwer Raio | Tomin mammat |
| Year | Stm. Cast |  | Tratac Consmed | ${ }_{\text {adm Coat }}$ | 084Cast | Totac Conemind | Oumcos |  |
| ${ }^{20188}$ | ${ }^{32} 48$ | ${ }^{329}$ | ${ }^{11288 \%}$ | ${ }^{3827}$ | ${ }^{329.57}$ | ${ }^{1128 \% \%}$ | $8^{83}$ | ${ }_{7}^{87}$ |
| 206 | \$2.42 | ${ }^{528}$ | 1,29\% | 53.27 | ${ }^{529.37}$ | $11.20 \%$ | 3 | 87 |
| 2091 | 52.45 | ${ }^{529}$ | $11.28 \%$ | 53,27 | 533.18 | $11.20 \%$ | ${ }^{3}$ | 57 |
| 2012 | 52.47 | $\times 30$ | 11.2888 | 53.36 | 530.47 | 11.23\% | 3 | 87 |
| 2013 | ${ }^{22} 58$ | ${ }^{336}$ | ${ }^{11288}$ | ${ }^{5338}$ | 530.77 | 11.208 | ${ }^{3}$ | 8 |
| ${ }^{2084}$ | ${ }_{82} 52$ | 30 | 11.23\% | \$3.39 | 33.108 | 11.294 | s4 | 8 |
| 2015 | \$2.5s | 3 | 11.29\% | \$3,56 | 831.38 | 11.20\% | 5 | 57 |
| 2016 | 8257 | 539 | 1120\% | 53.50 | \$31.76 | H2est | 54 | 87 |
| 2067 | 52.80 |  | 1129\% | 53.50 | \$3.20\% | 11298 | 54 | 57 |
| 2018 | 52.62\% | 53 | 11.29\% | sass | 532.34 | $11.29 \%$ | $5_{4}^{4}$ | s7 |
| 2016 | S2.85 | sa | 1138\% | s3.64 | ${ }^{332} 2 \times 8$ | 1129\% | 5 | 8 |
| ${ }_{2021}^{2020}$ |  | $\underset{532}{5382}$ | 11.29\% | S. |  | $11.208 \%$ | S484 | $\stackrel{5}{87}$ |
| 2022 | ${ }_{62} 2.73$ | ${ }_{83} 83$ | 129\% | 53.72 | ${ }_{533}$ | 11.2\% | ${ }_{54}$ | sols |
| 2023 | 52.78 | 533 | 11.20\% | 8372 | 533.29 | 1128\% | ${ }_{54}$ | ${ }^{8}$ |
| ${ }_{2029}^{2029}$ | ¢878 | (833 |  | 53,72 | ¢3323 |  |  | 588 |
| 2025 <br> 2008 | (8281 | - | \% $11.289 \%$ | Sti.84 | ¢39.69 | 11.2080 | \% 8 | ${ }^{58}$ |
| 2097 | 52.67 | 334 | 1128\% | \$3,44 | ${ }_{535.37}$ | \#29\% | 54 | 6 |
| 2029 | 52\% 20 | ${ }_{3} 35$ | 11.2 \% | 53.85 | ${ }_{535} .72$ | 1129\% | 84 | 5 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | - |  | 23 |
|  | Troms | Pe: Thorm | ass spoy |
| ${ }^{\text {rapr }}$ |  | Sugat Cost |  |
| 20 | 5 | 5n soces | 40 |
| 201 | ${ }^{50}$ | s0.8161 | 31 |
| 2012 | 50 | 50.8242 |  |
| 2013 | so | 50.1235 |  |
| ${ }^{20,4}$ | 59 | zo.ence |  |
| $20 \cdot 5$ | 50 | so, e462 | sta |
| 2066 | so | 50,837 | 343 |
| 2017 | 50 | so 8 er | 543 |
| $2{ }^{29}$ | 8 | 50,8748 | 40 |
| 2098 | 50 | 508837 | \$4 |
| 2020 | so | so, 0975 | 546 |
| 202 | 50 | Sc.9715 | ${ }^{5}$ |
| 2022 | st | 50,005 | 346 |
| 2023 | 58 | 50898 | 54 |
| 2024 | 50 | 89888 |  |
| 2025 | 50 | 50383 | 5 |
| 2028 | 50 | 80,074 |  |
| 2027 | 5 | ${ }^{30} 0$ csis | 546 |
| 2023 | 50 | sosest 5 | 548 |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Cooking |



| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Cooking |  |  |  |
|  |  |  | 1．0\％ |
|  |  |  | \％ |
|  |  |  | ＊ |
|  |  |  | 0\％ |
| Tatiel |  |  |  |
| Revenue－Energy Charge |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| $\begin{array}{lllll}2099 & 45 & 505351 & 825\end{array}$ |  | 80．5514 | \＄25 |
| $2014{ }^{45} \quad 505511 \quad 525$ |  |  |  |
| 2092 | ${ }^{5}$ | s6．3511 | 25 |
| 2013 45 ${ }_{50.5541} \mathbf{5 2 5}$ |  |  |  |
| ${ }_{3015}^{2045}$ |  |  |  |
|  |  |  |  |
| $\begin{array}{lllll}2016 \\ & \\ 2097\end{array}$ |  |  |  |
|  |  |  |  |
| ${ }_{2016}^{2018}$ |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| ${ }_{2024}^{2023} \quad 45 \quad 50$ |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 2027  <br>  2028 |  |  |  |
|  |  |  |  |


| mvestment Carying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 3 | $\stackrel{8}{8}$ | 7 | －$\square^{-1}$ | 67\％ |
|  | supaty | Devetipment | Serwee |  | Tolat | cost | Ratie of therms | Invessment |
| Yast | Mith | yain | Lex | Matas | invesmont | ctoma | Corsunged fotal | Camres ${ }^{\text {cost }}$ |
| ${ }_{2010}$ | ${ }_{\text {¢ }}^{187}$ | Sn |  |  |  |  |  |  |
| 2014 | ${ }_{550}$ | 5474 | 5288 | 5159 | 51，373 | $8.12 \%$ | $10.18 \%$ | ${ }_{8}$ |
| 2012 | 302 | 5468 | \＄289 | 8159 | \＄9988 | 8．12\％ | 10．19\％ | s |
| 2013 | 580 | 3450 | 5276 | 815 | 5970 | $8.12{ }^{\text {\％}}$ | 10．10\％ | ${ }^{\text {a }}$ |
| 2014 | \＄98 | s839 | \＄270 | 8146 | ssaz | $8.12 \%$ | 10．16\％ | ${ }^{38}$ |
| 2015 | \＄96 | 54.27 | 5251 | 5147 | spht | 8．17\％ | 10．16\％ | s |
| 2016 | 334 | 8418 | 3253 | ${ }^{1388}$ | ${ }^{31888}$ | 8．12\％ | 10．18\％ | 5 |
| 2017 | 382 | 5405 | ＊245 | \＄132 | seb4 | 80．12\％ | 10．60\％ | 5 |
| ${ }^{2019}$ | sea | S39 | ${ }_{523}$ | 8128 | ${ }^{\text {se3s }}$ | 8．17\％ | 10．48\％ |  |
|  | 578 | \＄334 | \＄279 | 5126 | \＄815 | 8 812\％ |  | 87 |
| 2 | ${ }^{876}$ | 53 | （ | \＄120 | s792 | $8.12 \%$ | 10．16\％\％ | ${ }^{87}$ |
| 2321 |  | 30， | 3275 | 310 | Srax |  | 818\％ | 8 |
| ${ }^{2022}$ | 372 | 5358 | 53288 | 518 | 5747 | 8．12\％ | 10．10\％ | \％ |
| 2023 | 38 | 3386 |  | 818 | \＄25 | 8，12\％ | 80．18\％ | ＊ |
| 2826 | 568 | 338 | 8185 | \＄100 | \％ | 8，2\％ | 10，\％\％ | ${ }^{8}$ |
| 2025 | 868 | 8388 | 8：980 | \＄101 | strat | 5 | 10．15\％ | 86 |
| ${ }^{2028}$ | 384 | 3319 | ${ }^{\text {s183 }}$ | 338 | 8tic | $8.127 \%$ | 10．18\％ | 85 |
| 2027 | 962 | 5311 | \＄177 | \＄65 | stas | 8．12\％\％ | （10）18\％ | 3 |
| 2028 |  | 5303 | S17\％ | 繁 | 8629 | 8．12\％ | 10．80\％ | 5 |


| incrementas Cussomer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Morthiy | Annum | Reflia Thems 70 | Ammaid Ratio | Anmua | Ratie 7homs ${ }^{\text {To }}$ | Amaut Ratio | Yual inceramex |
| Yaxt | Anomes | Atm Cos | Thata Consumed | Stac cost | Qumead | Tola Congmes | －8MCOSt |  |
| ${ }^{2068}$ | ${ }^{32} 20$ |  | 60．6\％\％ | 32， 3 | ${ }^{328987}$ | ${ }^{10.104 \%}$ | ${ }_{53}^{53}$ | ${ }^{36}$ |
| 2080 | ${ }^{512} 42$ | 529 | 10， $10 \%$ | 52.38 | 529.97 530.18 | 10．1．5\％ | ＊3 | ¢ |
| 2014 2012 | ${ }^{32} 8245$ | \％28 | ${ }^{10.109 \%}$ | （ | ¢ 530.16 | ${ }^{10.109 \%}$ | ${ }_{\text {\％}}^{3}$ | ${ }^{86}$ |
| ${ }_{2013}^{2012}$ | ${ }_{5250}$ | ${ }_{330}$ | 10．16\％ | 53．06 | 530.77 | 13， 6 \％ | 83 | 8 |
| 2914 | \＄252 | 530 | 70．10\％ | s305 | 5310 | 10．10\％ | s3 | ${ }^{5}$ |
| 2205 | 52.55 | 53 | ${ }^{10} 1085$ | ＊3： | 53：38 | $10.18 \%$ | 53 | 18 |
| 2016 | ＊257 | 531 | t0，梅 | 3.15 | 53410 | \％ 818 | ${ }^{83}$ | 5 |
| 2017 | 5280 | ${ }^{33}$ | $1018 \%$ | \＄3．15 | \＄32．02 | 610\％\％ | 53 | ss |
| ${ }^{2018}$ | ${ }_{528} 8^{285}$ | 837 | 10：10\％ | \＄3．15 | 523．36 | 10．18\％ | \＄3 | ${ }_{5}^{80}$ |
| 2918 | ${ }^{32.85}$ | ${ }_{3}^{332}$ | 10．19\％\％ | 5325 | S32\％ | 196\％ | S | \％ |
| ${ }_{2021}^{2020}$ |  | （332 | ${ }_{0}^{1076 \%}$ |  | 532．90 | \％ $8.18 \%$ | ${ }_{83}^{33}$ | 87 |
| 2022 | \＄2．73 | ${ }_{3} 3$ | 10， $16 \%$ | ${ }_{81,35}$ | 833 砥 | 40．9\％ | 8 | s |
| 2023 | 8278 | s33 | 10186\％ | ${ }^{3} 335$ | \＄33．68 | ${ }^{20} 168$ | 5 | 57 |
| 2024 | ＊278 | ${ }^{33}$ | the\％ | ${ }^{53} 35$ | 534．33 | 91096 | ${ }^{53}$ | s |
| ${ }^{2025}$ | 52.81 | ＊， 4 | 1018\％ | ${ }^{33,45}$ | ${ }^{53467}$ | 10．18\％ | 8 | \％ |
| 2026 | 52.84 | 33 | 16.3 er | 53．45 | \＄35．02 | 1088\％ | 54 | ＊ |
| ${ }_{2027}^{2027}$ | 52．87 | ${ }_{535}^{539}$ | 10．16\％ | \＄3，45 | S35．37 | ${ }^{\text {ratas }}$ | s4 | 5 |


| Cascosts |  |  |  |
| :---: | :---: | :---: | :---: |
| － | 2 | 3 | $7^{3}$ |
|  | Thems | Cumsmaity $\operatorname{cisex}^{\text {a }}$ | Gax 5upm |
| \％ex | $\cdots$ | Suply cost | cost |
| ${ }_{2010}$ | ${ }^{5}$ | 50.8080 |  |
| 2011 | 45 | 40，8161 | ${ }_{8}$ |
| 2012 | 4 | so 3242 | ${ }^{33}$ |
| 2013 | ${ }^{4} 5$ | s0．683 | 13 |
| 2014 | ＊ | so mace | 838 |
| 2915 | 45 | s0．8922 | ${ }_{\text {s3 }}$ |
| 2096 | 45 | \＄5，557 | ${ }^{33}$ |
| 2097 | ${ }^{45}$ | sp． 8 er ${ }^{\text {a }}$ | ${ }^{3}$ |
| 2018 | 45 | 50 374 | 539 |
| 2010 | ${ }^{45}$ | to 8397 | н0 |
| 2070 | 45 | 50.385 | 310 |
| 2027 | ${ }^{45}$ | 508015 | sal |
| 2022 | 45 | 50.8195 | s 1 |
| 2023 | 45 | s08193 | \％ |
| x24 | 45 | \＄06283 | $\underline{42}$ |
| 2325 | 45 |  | 42 |
| 2028 | ${ }^{45}$ | 80，9479 | ${ }_{4}$ |
| 2027 | 45 | 50．5659 | ${ }_{3}{ }_{3}$ |
| 2028 | 45 | s0atas | 4 |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Storage Tank Water Heating |



# Fiorida Public Utilities Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 



| Propane Cost - Table 1 |  |  |  |  | Natural Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Cost Por } \\ & \text { Galtor } \end{aligned}$ | Annual Gallons | Tax Resto | Propane cost | Year | Cost Per Therm | Annual Therns | Tax Rate | NG Cost |
| A | B | $c$ | 0 | $\mathrm{P}^{+} \mathrm{C}^{*}(1+\mathrm{D})$ | A | B | c | D | $\mathrm{B}^{+} \mathrm{C} \times(1+\mathrm{D})$ |
| 2009 | \$2.5460 | 186 | 7.5\% | 5800 | 2000 | \$0.8000 | 170 | 10\% | \$150 |
| 2010 | \$2.5533 | 186 | 7.5\% | 8509 | 2010 | \$0.8080 | 170 | 10\% | 5181 |
| 2011 | \$2.5605 | 186 | 7.5\% | \$511 | 2011 | \$0.8161 | 170 | 10\% | \$153 |
| 2012 | \$2.5678 | 186 | 7.5\% | \$512 | 2012 | \$0.8242 | 170 | 10\% | \$154 |
| 2013 | \$2.5750 | 186 | 7.5\% | \$514 | 2013 | 50.8325 | 170 | 10\% | \$156 |
| 2014 | \$2.5823 | 186 | 7.5\% | \$618 | 2014 | \$0.6408 | 170 | 10\% | \$15 |
| 2015 | \$25986 | 186 | 7.5\% | \$617 | 2015 | \$0.6492 | 170 | 10\% | \$150 |
| 2016 | \$2.5988 | 188 | 7.5\% | \$618 | 2016 | \$0.8577 | 170 | 10\% | \$180 |
| 2017 | \$2.6041 | 186 | 7.5\% | 3619 | 2017 | \$0.8863 | 170 | 10\% | \$162 |
| 2018 | \$2.6113 | 186 | 7.5\% | \$621 | 2018 | \$0.8749 | 470 | 10\% | \$184 |
| 2019 | \$2.6186 | 186 | 7.5\% | \$622 | 2019 | \$0.8837 | 470 | 10\% | \$165 |
| 2020 | 52.6259 | 186 | 7.5\% | \$524 | 2020 | \$0.8925 | 170 | 10\% | \$187 |
| 2021 | \$2.6331 | 186 | 7.5\% | \$625 | 2021 | \$0.9015 | 170 | 10\% | \$189 |
| 2022 | 32.6404 | 188 | 7.5\% | \$627 | 2022 | \$0.9105 | 170 | 10\% | \$170 |
| 2023 | \$2.6476 | 186 | 7.5\% | 5628 | 2023 | \$0.9196 | 170 | 10\% | \$172 |
| 2024 | 52.6549 | 186 | 7.5\% | 5630 | 2024 | \$0.9288 | 170 | 10\% | \$174 |
| 2025 | \$2.6822 | 186 | 7.5\% | \$631 | 2025 | 50.3381 | 170 | 10\% | \$178 |
| 2026 | 32.6594 | 186 | 7.5\% | 5633 | 2026 | \$0.9474 | 170 | 10\% | \$177 |
| 2027 | 52.6787 | 186 | 7.5\% | 3634 | 2027 | S0.556e | 170 | 10\% | \$179 |
| 2028 | \$2.8839 | 186 | 7.5\% | 5635 | 2028 | \$0.9665 | 170 | 10\% | 5181 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  | Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Rato Por Therm | Annual | Tax Rate | NG Cost | Year | Monthly Custamer charge | $\begin{aligned} & \text { Annual } \\ & \text { Customer } \\ & \text { Charge } \end{aligned}$ | Applance Therm | Totes Antual Therm | $\begin{aligned} & \text { Puesto - } \\ & \text { Appliance to } \\ & \text { Toteli } \end{aligned}$ | Tex Rato | $\begin{gathered} \text { Pro Ratiod } \\ \text { Customer Change } \end{gathered}$ |
| A | B | c | D | $\mathrm{B}^{*} \mathrm{C}^{\circ}(1+\mathrm{D})$ | A | B | $c$ | D | E | D/E | G | $\mathrm{C}^{*}\left(\underline{D}()^{*} \times 1+2\right)$ |
| 2009 | \$0.5511 | 170 | 10\% | 8109 | 2009 | 88.00 | 508.00 | 170 | 443 | 38.37\% | 10\% | 44 |
| 2010 | \$0.5511 | 170 | 10\% | \$103 | 2010 | \$8.00 | \$98.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2011 | \$0.5511 | 170 | 10\% | \$103 | 2011 | 88.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 4 |
| 2012 | \$0.5511 | 170 | 10\% | 8103 | 2012 | \$8.00 | \$08.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2013 | \$0.5511 | 170 | 10\% | 8103 | 2013 | \$8.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2014 | \$0.5511 | 170 | 10\% | 8103 | 2014 | \$8.00 | \$98.00 | 170 | 443 | 38.37\% | 10\% | \$4 |
| 2015 | \$0.5511 | 170 | 10\% | \$103 | 2015 | 88.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 4 |
| 2016 | \$0.5511 | 170 | 10\% | 8103 | 2016 | 88.00 | \$86.00 | 170 | 43 | 38.37\% | 10\% | 41 |
| 2017 | \$0.5511 | 170 | 10\% | \$103 | 2017 | \$8.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2018 | \$0.5511 | 170 | 10\% | 8103 | 2018 | \$8.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2019 | \$0.5511 | 170 | 10\% | \$103 | 2019 | 38.00 | \$98.00 | 170 | 443 | 38.37\% | 10\% | \$1 |
| 2020 | \$0.5511 | 170 | 10\% | $\$ 103$ | 2020 | \$8.00 | \$96.00 | 170 | 44 | 38.37\% | 10\% | \$4 |
| 2021 | \$0.5511 | 170 | 10\% | 8103 | 2021 | \$8.00 | \$96.00 | 170 | 43 | 38.37\% | 10\% | 41 |
| 2022 | \$0.5511 | 170 | 10\% | $\$ 103$ | 2022 | \$0.00 | \$99.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2023 | \$0.5511 | 170 | 10\% | \$103 | 2023 | 38.00 | \$96.00 | 170 | 43 | 38.37\% | 10\% | 4 |
| 2024 | \$0.5511 | 170 | 10\% | \$103 | 2024 | \$8.00 | \$98.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2025 | \$0.5511 | 170 | 10\% | \$403 | 2025 | \$8.00 | \$96.00 | 170 | 44 | 38.37\% | 10\% | \$4 |
| 2026 | \$0.5511 | 170 | 10\% | \$103 | 2028 | \$8.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 41 |
| 2027 | 50.5511 | 170 | 10\% | 8103 | 2027 | \$8.00 | \$98.00 | 170 | 43 | 38.37\% | 10\% | 41 |
| 2028 | \$0.5511 | 170 | 10\% | \$103 | 2028 | \$8.00 | \$96.00 | 170 | 443 | 38.37\% | 10\% | 564 |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Tankless Water Heating |


|  |  | Beneffis |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided <br> Propane Appliance O8M | tOTAL benefirs | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG Customer Charge | TOTAL costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thru6 | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$448 | \$450 | \$60 | \$958 | \$0 | $\$ 0$ | \$0 | \$100 | \$60 | \$132 | \$91 | \$37 | \$420 |
| 2010 | 2 | \$449 | 0 | \$61 | \$510 | 0 | \$0 | 0 |  | \$61 | \$133 | \$91 | \$37 | \$322 |
| 2011 | 3 | \$451 | 0 | \$61 | \$512 | 0 | \$0 | 0 |  | \$61 | \$135 | \$91 | \$37 | \$324 |
| 2012 | 4 | \$452 | 0 | \$82 | $\$ 514$ | 0 | \$0 | 0 |  | \$62 | \$136 | \$91 | \$ 37 | \$328 |
| 2013 | 5 | \$453 | 0 | \$62 | \$516 | 0 | \$0 | 0 |  | \$62 | \$137 | \$91 | \$37 | \$328 |
| 2014 | 6 | \$455 | 0 | \$63 | 5648 | 0 | 50 | 0 |  | \$63 | \$139 | \$91 | \$37 | \$330 |
| 2015 | 7 | \$456 | 0 | \$64 | \$520 | 0 | \$0 | 0 |  | \$64 | \$140 | \$91 | \$37 | \$332 |
| 2016 | 8 | \$457 | 0 | \$64 | \$521 | 0 | \$0 | 0 |  | \$64 | \$142 | $\$ 91$ | \$37 | \$334 |
| 2017 | 9 | \$458 | 0 | \$65 | \$523 | 0 | \$0 | 0 |  | \$65 | \$143 | \$91 | \$37 | \$336 |
| 2018 | 10 | \$460 | 0 | \$66 | \$525 | 0 | \$0 | 0 |  | \$66 | \$144 | \$91 | \$37 | \$338 |
| 2019 | 11 | \$461 | 0 | \$66 | \$527 | 0 | \$0 | 0 |  | \$66 | \$146 | \$91 | \$37 | \$340 |
| 2020 | 12 | \$462 | 0 | \$67 | \$529 | 0 | 50 | 0 |  | 567 | \$147 | \$91 | \$37 | \$343 |
| 2021 | 13 | \$463 | 0 | \$68 | 5631 | 0 | \$0 | 0 |  | \$68 | \$149 | \$91 | \$37 | \$345 |
| 2022 | 14 | \$465 | 0 | \$68 | $\$ 533$ | 0 | \$0 | 0 |  | \$68 | \$150 | \$91 | \$37 | \$347 |
| 2023 | 15 | \$466 | 0 | \$69 | \$535 | 0 | \$0 | 0 |  | \$69 | \$152 | \$91 | \$37 | 5349 |
| 2024 | 16 | \$467 | 0 | \$70 | \$537 | 0 | $\$ 0$ | 0 |  | \$70 | \$153 | \$91 | \$37 | \$351 |
| 2025 | 17 | \$469 | 0 | \$70 | \$639 | 0 | \$0 | 0 |  | \$70 | \$155 | \$91 | \$37 | \$354 |
| 2026 | 18 | \$470 | 0 | \$71 | $\$ 541$ | 0 | \$0 | 0 |  | \$71 | \$156 | \$91 | \$37 | \$368 |
| 2027 | 19 | \$471 | 0 | \$72 | \$543 | 0 | \$0 | 0 |  | \$72 | \$158 | \$91 | \$37 | \$358 |
| 2028 | 20 | \$472 | 450 | \$72 | \$998 | 1,219 | (\$1,746) | 527 |  | \$72 | \$159 | $\$ 91$ | \$37 | \$360 |
|  |  |  |  | Present Value of Eennfts | \$5,834 |  |  |  |  |  |  |  | resent Value Costs | \$3,378 |
|  |  |  |  |  |  |  |  |  |  |  |  | BenefillCost Ratio |  | 1.67 |

# Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 

| Appliance Type |
| :---: |
| Tankless Water Heating |


| Exalation Ratas |  | [PDemMargm Rasa | 0.0\% |
| :---: | :---: | :---: | :---: |
| OSM Expense | 4.0\% | NG Five Rate | 1.04 |
| LPFueicosat | 1.0\% | nct Buse Rates | 0.0\% |


| Propane Cost. Table 1 |  |  |  |  | Netharl Gas Supply Cost- Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cost Pu Gutton | Annusi <br> Gullon: | Tax Reste | Propene Cost | rear | Contren Therm | Annual Thertma | Tax Amto | NG Cost |
| A | B | $c$ | D |  | A | B | c | D | -cosite) |
| 2009 | \$2.5480 | 164 | 7.5\% | भ49 | 2009 | 50.8000 | 150 | 10\% | \$132 |
| 2010 | 52.5533 | 184 | 7.5\% | \%49 | 2060 | 50.8080 | 150 | 10\% | \$133 |
| 2011 | 32.5605 | 164 | 7.5\% | 481 | 2011 | \$0.8154 | 150 | 10\% | \$135 |
| 2012 | \$2.5678 | 164 | 7.5\% | 443 | 2012 | \$0.8242 | 150 | 10\% | \$138 |
| 2013 | \$2.5750 | 164 | 7.5\% | \%453 | 2013 | \$0.8325 | 150 | 10\% | 3137 |
| 2014 | \$2.5923 | 184 | 7.5\% | 435 | 2014 | 50.8408 | 150 | 10\% | :138 |
| 2065 | \$2.5896 | 164 | 7.5\% | \$4* | 2015 | 50.8492 | 150 | 10\% | 3140 |
| 2016 | \$2.5958 | 164 | 7.5\% | \$487 | 2018 | \$0.8577 | 150 | 10\% | 3142 |
| 2017 | \$2.6041 | 184 | 7.5\% | 443 | 2047 | \$0.8683 | 150 | 10\% | \$143 |
| 2018 | 52.8173 | 164 | 7.5\% | \$460 | 2018 | 90.8749 | 150 | 10\% | \$14. |
| $20+9$ | \$2.8866 | 164 | 7.5\% | 481 | 2098 | \$0.8837 | 150 | 10\% | 8145 |
| 2020 | \$2.2259 | 164 | 7.5\% | 42 | 2020 | \$0.8925 | 450 | 10\% | 1147 |
| 2021 | \$2.8331 | 164 | 7.5\% | 44 | 2021 | 30.9015 | 150 | 10\% | 3143 |
| 2022 | \$2.5604 | 164 | 7.5\% | H45s | 2027 | \$0.9105 | 150 | 10\% | \$180 |
| 2023 | \$2.5476 | 184 | 7.5\% | 8488 | 2023 | \$0.8198 | 150 | 10\% | \$182 |
| 2024 | \$2.0849 | 164 | 7.5\% | 447 | 2024 | 50.9288 | 150 | 10\% | \$183 |
| 2025 | \$2.6872 | 164 | 7.5\% | * | 2025 | \$0,838 | 150 | 10\% | \$165 |
| 2028 | \$2.8694 | 164 | 7.5\% | 470 | 2028 | \$0.8474 | 150 | 10\% | \$186 |
| 2027 | \$2.6787 | 164 | 7.5\% | 8471 | 2027 | 50.9569 | 150 | 10\% | 3106 |
| 2028 | 52.6839 | 164 | 7.5\% | H72 | 2028 | \$0.9865 | 150 | 10\% | 3185 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Vemr | $\begin{aligned} & \text { Rata for } \\ & \text { Therm } \end{aligned}$ | Annuat Therma | Tex Rath | No cost |
| A | B | c | D | Brar ${ }^{(1+b)}$ |
| 2009 | Sc. 5511 | 150 | 10\% | 59 |
| 2010 | S0. 5511 | 150 | 10\% | 399 |
| 2011 | 50. 5511 | 150 | 10\% | \$84 |
| 2012 | \$0.5511 | 150 | 10\% | \$01 |
| 2013 | 50.5511 | 150 | 10\% | 301 |
| 2014 | \$0.5511 | 150 | 10\% | 89 |
| 2015 | \$0.5511 | 150 | 10\% | 59 |
| 2016 | 30.5511 | 150 | 10\% |  |
| 2017 | 50.5511 | 150 | 10\% | 891 |
| 2018 | 50.5611 | 150 | 10\% | 51 |
| 2018 | \$0.3511 | 150 | 10\% | 491 |
| 2020 | \$0.5511 | 150 | 10\% | 591 |
| 2021 | \$0.5511 | 150 | 10\% | 89 |
| 2022 | \$0.5511 | 150 | 10\% | 391 |
| 2023 | \$0.5511 | 150 | 10\% | * 1 |
| 2024 | *0.5511 | 150 | $10 \%$ | * 1 |
| 2025 | \$00.5511 | 150 | 10\% | 191 |
| 208 | \$0.5511 | 150 | 10\% | \%1 |
| 2027 | \$0.5511 | 150 | 10\% | 39 |
| 2028 | \$0.5511 | 150 | 10\% | 391 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vent | Montithy Customer charys | $\begin{gathered} \text { Anmual } \\ \text { Customaner } \\ \text { Charte } \end{gathered}$ | $\begin{aligned} & \text { Applancom } \\ & \text { Ansues } \\ & \text { Therems } \end{aligned}$ | Total Anthua Therna |  | Yax Rate | Prothated Custorne Charge |
| A | 8 | c | $\bigcirc$ | E | De | 0 | Crider $(9+2)$ |
| 2009 | 58.00 | \$96.00 | ${ }_{4} 5$ | 423 | 35.46\% | 10\% | 837 |
| 2010 | 58.00 | \$80,30 | 150 | 423 | 35.44\% | 10\% | *v |
| 2011 | 58.00 | \$50.00 | 150 | 423 | 35.46\% | 10\% | \$37 |
| 2012 | \$8.00 | 596.00 | 150 | 423 | 35.45\% | 10\% | 337 |
| 2013 | 58.00 | \$98.00 | 150 | 423 | 35.46\% | 10\% | 537 |
| 2014 | 58.00 | 598.00 | 150 | 423 | 35.46\% | 10\% | *37 |
| 2015 | \$6.00 | \$86,00 | 150 | 423 | 35.46\% | 10\% | 337 |
| 2016 | \$8.00 | \$00.00 | 150 | 423 | 35.46\% | 10\% | *37 |
| 2017 | *8.00 | \$80.00 | 150 | 423 | 35.45\% | 10\% | sv7 |
| 2018 | \$8.00 | \$06.00 | 150 | 423 | 35.46\% | 10\% | 337 |
| 2019 | 56.00 | \$96.00 | 150 | 423 | 35.48\% | 10\% | 387 |
| 2020 | \$8,00 | 586.00 | 150 | 423 | 35.46\% | 10\% | 537 |
| 2024 | \$8.00 | \$80.00 | 150 | 423 | 35.45\% | 10\% | \$37 |
| 2022 | \$8.00 | 3806.00 | 150 | 423 | 35.46\% | 10\% | \$37 |
| 2023 | \$5.00 | \$86.00 | 150 | 423 | 35.46\% | 10\% | *37 |
| 2024 | 50.00 | 566.00 | 150 | 423 | 36.46\% | 10\% | \$37 |
| 2025 | 50.00 | 586.00 | 150 | 423 | 35.46\% | 10\% | \$37 |
| 2020 | 58.00 | \$96.00 | 150 | 423 | 35.46\% | 10\% | \$37 |
| 2027 | 38.00 | \$06.00 | 150 | 423 | 35.45\% | 10\% | 37 |
| 2028 | \$8.00 | 586.00 | 150 | 433 | 35.46\% | 10\% | 337 |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |


|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance O\&M | TOTAL BENEFTIS | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Apptiance O \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$532 | \$350 | \$270 | \$1,152 | \$0 | 0 | \$0 | \$100 | \$270 | \$157 | \$108 | \$42 | \$877 |
| 2010 | 2 | \$533 | 0 | \$273 | \$806 | 0 | 0 | 0 |  | \$273 | \$158 | \$108 | \$42 | \$581 |
| 2011 | 3 | \$535 | 0 | \$275 | 5810 | 0 | 0 | 0 |  | \$275 | \$160 | \$108 | \$42 | \$588 |
| 2012 | 4 | \$536 | 0 | \$278 | \$815 | 0 | 0 | 0 |  | \$278 | \$161 | \$108 | \$42 | \$690 |
| 2013 | 5 | \$538 | 0 | \$281 | $\$ 818$ | 0 | 0 | 0 |  | \$281 | \$163 | \$108 | \$42 | \$594 |
| 2014 | 6 | \$539 | 0 | \$284 | \$823 | 0 | 0 | 0 |  | \$284 | \$165 | \$108 | \$42 | \$599 |
| 2015 | 7 | \$541 | 0 | \$287 | \$828 | 0 | 0 | 0 |  | \$287 | \$166 | \$108 | \$42 | \$603 |
| 2016 | 8 | \$542 | 0 | \$289 | \$832 | 0 | 0 | 0 |  | \$289 | \$168 | \$108 | \$42 | \$808 |
| 2017 | 9 | \$544 | 0 | \$292 | \$836 | 0 | 0 | 0 |  | \$292 | \$170 | \$108 | \$42 | \$812 |
| 2018 | 10 | \$545 | 0 | \$295 | \$841 | 0 | 0 | 0 |  | \$295 | \$171 | \$108 | \$42 | \$847 |
| 2019 | 11 | \$547 | 0 | \$298 | \$845 | 0 | 0 | 0 |  | \$298 | \$173 | \$108 | \$42 | \$622 |
| 2020 | 12 | \$548 | 0 | \$301 | \$850 | 0 | 0 | 0 |  | \$301 | \$175 | \$108 | \$42 | \$626 |
| 2021 | 13 | \$550 | 0 | \$304 | \$854 | 0 | 0 | 0 |  | \$304 | \$177 | \$108 | \$42 | \$831 |
| 2022 | 14 | \$552 | 0 | \$307 | \$858 | 0 | 0 | 0 |  | \$307 | \$178 | \$108 | \$42 | \$636 |
| 2023 | 15 | \$553 | 0 | \$310 | \$863 | 0 | 0 | 0 |  | \$310 | \$180 | \$108 | \$42 | 5841 |
| 2024 | 16 | \$555 | 0 | \$313 | \$888 | 0 | 0 | 0 |  | \$313 | \$182 | \$108 | \$42 | \$848 |
| 2025 | 17 | \$556 | 0 | \$317 | \$873 | 0 | 0 | 0 |  | \$317 | \$184 | \$108 | \$42 | $\$ 651$ |
| 2026 | 18 | \$558 | 350 | \$320 | \$1,227 | 2;882 | $(4,657)$ | 1,775 |  | \$320 | \$186 | \$108 | \$42 | \$656 |
| 2027 | 19 | \$559 | 0 | \$323 | \$a82 | 0 | 0 | 0 |  | \$323 | \$187 | \$108 | \$42 | \$661 |
| 2028 | 20 | \$561 | 0 | \$326 | \$887 | 0 | 0 | 0 |  | \$326 | \$189 | \$108 | \$42 | \$666 |
| Present Value <br> of Benents$=\$ 8,685$ Prasent Value of Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | Benefit/Cast Ratio |  | 1.41 |

# Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 

Residential Propane Distribution System Conversion Program
Particlpants Test - Data

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Heating System |  |  |  |
| Exelation Rater |  | 19 Delmargin Rata | 0.0\% |
| OxM Expense | 1.0\% | NG Fuel Rute | 1.0\% |
| LP Fuot cout | 10\% | No Base Rales | 0.0s |


| Propane Cost.Table 1 |  |  |  |  | Natural Gas Supply Cost -Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| rear | $\operatorname{Cos}+\operatorname{mot}_{\mathrm{w}}$ Oathon | Annuel Gallorte | Tax Rate | Propane Cont | roas | Cent Pror Thum | Anmuat Thenms | Tax Rent | NG Cost |
| A | B | c | D | B-C $\mathrm{c}_{1}(1+\mathrm{D})$ | A | B | c | 0 | Brer $(1+\mathrm{D})$ |
| 2009 | 32.5460 | 194 | 7.5\% | **32 | 2000 | 50.8000 | 178 | 10\% | 819 |
| 2010 | \$2,5333 | 194 | 7.5\% | \$535 | 2010 | \$0.8080 | 178 | 10\% | \$188 |
| 2041 | \$2.5805 | 19 | 7.5\% | *338 | 2011 | \$0.8151 | 178 | 10\% | *180 |
| 2012 | \$25078 | 194 | 7.5\% | *39 | 2012 | \$0.8242 | 178 | 10\% | *161 |
| 2013 | \$2.5750 | 194 | 7.5\% | *438 | 2013 | \$0.6325 | 178 | 10\% | \$183 |
| 2014 | 52.5823 | 19 | 7.5\% | 369 | 2014 | \$0.8408 | 178 | 10\% | \$188 |
| 2015 | \$2.5809 | 19 | 7.5\% | *041 | 2015 | 50.4482 | 178 | 10\% | 5188 |
| 2015 | 52.5068 | 190 | 7.5\% | *042 | 2018 | \$0.8577 | 178 | 10\% | \$188 |
| 2017 | \$2.6041 | 194 | 7.5\% | \$64 | 2017 | 30.8663 | 178 | 10\% | \$170 |
| 2018 | \$2.6113 | 194 | 7.5\% | 2645 | 2018 | 50.8749 | ${ }^{78}$ | 10\% | 8171 |
| 2018 | \$2.6186 | 194 | 7.5\% | 547 | 2019 | \$0.8837 | 178 | 10\% | \$173 |
| 2020 | 52.8258 | 194 | 7.5\% | 364 | 2020 | s0.8825 | 178 | 10\% | 4175 |
| 2021 | 52.6331 | 184 | 7.5\% | 5685 | 2021 | \$0.9015 | 176 | 10\% | $\$ 17$ |
| 2022 | \$2.8404 | 194 | 7.5\% | *062 | 2022 | 30.8108 | 178 | 10\% | \$178 |
| 2023 | \$28479 | 194 | 7.5\% | 4683 | 2023 | 50.9108 | 178 | 10\% | \$180 |
| 2024 | \$2.6549 | 194 | 7.5\% | \$065 | 2024 | \$0.0280 | 178 | 10\% | 5182 |
| 2025 | \$2.6622 | 194 | 7.5\% | suss | 2025 | 50.9341 | 178 | 10\% | \$184 |
| $20 \% 6$ | \$2.6654 | 194 | 7.5\% | sase | 2020 | \$0.9474 | 178 | 10\% | \$188 |
| 2027 | \$2.6767 | 194 | 7.5\% | \$559 | 2027 | 50.9568 | 178 | 10\% | \$187 |
| 2028 | \$2.6830 | 194 | 75\% | \$561 | 2028 | \$0.9885 | 178 | 10\% | 3189 |


| Natural Oass Energy Charga -Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| rear | $\begin{aligned} & \text { Reato pury } \\ & \text { Therm } \end{aligned}$ | Annuma Thernes | Tax Ratam | na coat |
| A | B | $c$ | D | $\mathrm{BaC}^{+(1+D)}$ |
| 2009 | \$0.5511 | 178 | 10\% | \$108 |
| 2010 | \$0.5511 | 478 | 10\% | \$108 |
| 2011 | 50.5511 | 178 | 10\% | \$100 |
| 2042 | 30.5511 | ${ }^{78}$ | 10\% | * 6 |
| 2013 | 80.5511 | 178 | 10\% | \$108 |
| 2014 | 50.5541 | 178 | 10\% | 5100 |
| 2015 | 30.5511 | 178 | 10\% | \$100 |
| 2015 | \$0.5511 | 178 | 10\% | \$100 |
| 2017 | \$0.5511 | 178 | 10\% | \$10\% |
| 2018 | 50.5511 | 178 | 10\% | *188 |
| 2018 | \$0.5511 | 178 | 10\% | *68 |
| 2020 | \$0.5511 | 178 | 10\% | *108 |
| 2021 | 50.5s11 | ${ }^{176}$ | 10\% | \$100 |
| 2022 | \$0.5511 | 178 | 10\% | 3106 |
| 2023 | \$0.5511 | 178 | 10\% | \$08 |
| 2024 | 50.5511 | 178 | 10\% | \$108 |
| 2025 | 80.5511 | 178 | 10\% | *106 |
| 2028 | \$0.5511 | 178 | 10\% | \$108 |
| 2027 | \$0.5511 | 178 | 10\% | *100 |
| 2028 | 50.5541 | 178 | 10\% | 5108 |


| Natural Oas Customer Charge-Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | montity Cuetomer | Annual Cumbomart Chergo | Applanct Arnumer Therms | Tetal Annulal Thernt | $\begin{aligned} & \text { Ratto - } \\ & \text { Appuincos to } \\ & \text { Tocall } \end{aligned}$ | Tax Sato | Proputed Cuntomer Charge |
| A | 日 | c | D | E | DEE | G | Croteratiz |
| 2009 | 80.00 | \$08.00 | 178 | 443 | 40.18\% | 10\% | * 4 |
| 2010 | 38.00 | \$59.00 | 178 | 43 | 40.18\% | 10\% | 42 |
| 2011 | \$0.00 | \$0000 | 178 | 43 | 40.16\% | 10\% | 42 |
| 2012 | 38.00 | \$0600 | 178 | 43 | 40.18\% | 10\% | * |
| 2013 | \$0.80 | \$50.00 | 178 | 443 | 40.18\% | 10\% | 42 |
| 2014 | \$8.00 | \$900.00 | 178 | 413 | 40.18\% | 10\% | 42 |
| 2015 | 58.00 | \$96.00 | 178 | 443 | 40.18\% | 10\% | 12 |
| 2016 | \$8.00 | \$96.00 | 179 | 443 | 40.18\% | 10\% | 42 |
| 2017 | 88.00 | \$98.00 | 178 | 43 | 40.18\% | 10\% | \#2 |
| 2018 | 58.00 | \$0800 | 178 | 443 | 40.15\% | 10\% | 42 |
| 2019 | \$0.00 | \$06.00 | 178 | 44 | 40.18\% | 10\% | 12 |
| 2020 | \$8.00 | \$906.00 | 178 | 44. | 40.18\% | 10\% | 42 |
| 2021 | \$8.00 | \$98.00 | 178 | 443 | 40.18\% | 10\% | 142 |
| 2022 | 38.00 | \$9800 | 178 | 443 | 40.18\% | 10\% | 12 |
| 2023 | \$8.00 | \$90600 | 178 | 43 | 40.18\% | 10\% | $\mu 2$ |
| 2024 | 38.00 | \$08.00 | 178 | 443 | 40.15\% | 10\% | \$2 |
| 2025 | 88.00 | \$08.00 | 178 | 43 | 40.18\% | 10\% | 42 |
| 2028 | \$8.00 | \$00.00 | 178 | 443 | 40.18\% | 10\% | 42 |
| 2027 | \$8.00 | \$06.00 | 178 | 443 | 40.10\% | 10\% | 42 |
| 2028 | \$0.co | \$98.00 | 178 | 443 | 40.18\% | 10\% | 512 |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Clothes Drying |



# Florida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program <br> Participants Test - Data 

| Appllance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Clothes Drying |  |  |  |
| Evalesion Reras |  | LPDesmargin Rate | 0.0\% |
| OsM Experse | 1.0\% | ng Fuel Rate | 1.0\% |
| IP Fued Cost | 1.0\% | NG Base Rates | 0.0\% |


| Propane Cost-Table 1 |  |  |  |  | Natural Gas Supply Cost - Tabie 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Cout Per } \\ & \text { Gultion } \end{aligned}$ | Anntal Gallons | Tax fate | Propame Coss | Yaur | Cost Por | Annual Therms | Tex Patat | ngcost |
| A | $B$ | $c$ | 0 | $\operatorname{coc}^{(10}(1+D)$ | A | B | c | D | Bectatid |
| 2009 | \$2.5460 | 55 | 7.5\% | 814 | 2009 | \$0.8000 | 50 | 10\% | 54 |
| 2010 | \$2.5533 | 55 | 7.5\% | \$150 | 2010 | \$0.8060 | 50 | 10\% | 4 |
| 2011 | \$2.5005 | 55 | 7.5\% | \$150 | 2011 | *0.8181 | 50 | 10\% | \$45 |
| 2012 | \$2.5678 | 55 | 7.5\% | 3154 | 2012 | 50.8242 | 50 | 10\% | 46 |
| 2013 | \$2.5750 | 55 | 7.5\% | \$161 | 2013 | \$0.a325 | 50 | 10\% | 46 |
| 2014 | \$2.5023 | 55 | 7.5\% | \$152 | 2014 | \$0.9469 | 50 | 10\% | * |
| 2015 | \$2.5806 | 55 | 7.5\% | 3152 | 2015 | 50.8492 | 50 | 10\% | 47 |
| 206 | \$2.5969 | 55 | 7.5\% | 8182 | 2016 | 50, 557 | 50 | 10\% | M7 |
| 2017 | \$2.6041 | 55 | 7.5\% | \$153 | 2017 | \$0.3663 | 30 | 10\% | 4 |
| 2018 | \$2.613 | 55 | 7.5\% | 5183 | 2018 | \$0.8748 | so | 10\% | *4 |
| 2019 | \$2.6786 | 55 | 7.5\% | \$154 | 2019 | \$0.8837 | 50 | 10\% | 848 |
| 2020 | \$2.6259 | 55 | 7.5\% | 5154 | 2020 | 50.8325 | 50 | 10\% | 38 |
| 2024 | 32.8331 | 55 | 7.5\% | 3154 | 2021 | 50.9015 | 50 | 10\% | *60 |
| 2022 | \$2.4604 | 55 | 7.5\% | 3185 | 2022 | \$0.010 | 50 | 10\% | 850 |
| 2023 | \$2.8476 | 55 | 7.5\% | \$158 | 2023 | 50.9186 | 50 | 10\% | 81 |
| 2024 | \$2.6548 | 55 | 7.5\% | \$15\% | 2024 | 50.a288 | 50 | 10\% | 461 |
| 2025 | \$2.6622 | 55 | 7.5\% | \$180 | 2025 | \$0.83s1 | 50 | 10\% | *02 |
| 2028 | \$2.6804 | 55 | 7.5\% | \$159 | 2028 | 50.9474 | 50 | 10\% | \$52 |
| 2027 | 32.6787 | 55 | 7.5\% | 1187 | 2027 | 50.9565 | 50 | 10\% | 83 |
| 2028 | \$28839 | 55 | 7.5\% | \$57 | 2028 | \$0,9665 | 50 | 10\% | 863 |


| Natural Gas Energy Charge - Tabla 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| veer | Rate Por | Anmual Thems | Tax Ratat | Na cont |
| A | B | c | 0 | $\mathrm{Brc}(9+\mathrm{D})$ |
| 2009 | 30.5511 | 50 | (0\% | 530 |
| 2080 | s0.5511 | 50 | 10\% | 830 |
| 2011 | \$0.5511 | 50 | 10\% | \$30 |
| 2012 | \$0.5511 | 50 | 10\% | *30 |
| 2013 | 80.5511 | 50 | 10\% | \$30 |
| 2054 | \$0.5511 | 50 | 10\% | \$30 |
| 2015 | \$0.5519 | 50 | 10\% | 830 |
| 2016 | \$0.3511 | 50 | 10\% | \$30 |
| 2017 | \$0.5611 | 50 | 10\% | \$30 |
| 2018 | \$0.5511 | 50 | 10\% | \$30 |
| 2019 | \$0.5511 | 50 | 10\% | \$3 |
| 2020 | 50.5519 | so | 10\% | 830 |
| 2021 | \$0.551! | 50 | 10\% | \$30 |
| 2022 | 50.5511 | 50 | 10\% | \$30 |
| 2023 | \$0.5511 | 50 | 10\% | *30 |
| 2024 | \$0.5511 | 50 | 10\% | 230 |
| 2025 | \$0.5511 | 50 | 10\% | 80 |
| $20 \%$ | \$0.5511 | 50 | 10\% | \$30 |
| 2027 | \$0.5511 | 50 | 10\% | \$30 |
| 2028 | 50.354 | 50 | 10\% | \$50 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Montrity Custommer Cherge | $\begin{aligned} & \text { Anmual } \\ & \text { Cumberer } \\ & \text { Chavie } \end{aligned}$ | $\begin{aligned} & \text { Apoptance } \\ & \text { Annax } \\ & \text { Therman } \end{aligned}$ | $\begin{aligned} & \text { Toran } \\ & \text { Annual } \\ & \text { Thermm } \end{aligned}$ | $\begin{aligned} & \text { Rusko - } \\ & \text { Applimese to } \\ & \text { Totai } \end{aligned}$ | Tax Ratif | Prontud charge |
| A | 8 | c | 0 | E | DE | c | Crarexitin |
| 2009 | 5t.0 | 396.00 | 50 | 443 | 11.29\% | 10\% | 812 |
| 2010 | 36.00 | \$96.00 | 50 | 44 | 11.29\% | 10\% | \$12 |
| 2041 | 58.00 | 509.00 | 50 | 443 | 11.29\% | 10\% | \$12 |
| 2032 | \$8.00 | \$26.00 | 50 | 443 | 11.29\% | 10\% | 312 |
| 2013 | \$8.00 | \$96.00 | 50 | 43 | 11.28\% | 10\% | *12 |
| 2014 | 58.00 | \$8000 | 50 | 43 | 11.29\% | 10\% | \$12 |
| 2015 | 38.00 | \$06.00 | 50 | 443 | 1129\% | 10\% | \$12 |
| 2016 | *8.00 | 896.00 | 50 | 443 | 11.29\% | 10\% | \$12 |
| 2017 | \$8.00 | \$98.00 | 50 | 443 | 15.23\% | 10\% | \$12 |
| 2018 | \$8.00 | \$56.00 | 50 | 443 | 11.29\% | 10\% | 12 |
| 2019 | \$8.00 | \$96.00 | 50 | 443 | 1129\% | 10\% | 112 |
| 2020 | 59.00 | \$89.00 | 50 | 443 | 11.29\% | 10\% | \$12 |
| 2021 | \$8.00 | \$06.00 | 50 | 443 | 11.29\% | 10\% | 312 |
| 2022 | \$0.00 | \$96.00 | 50 | 443 | 11.29\% | 10\% | \$42 |
| 2083 | \$8.00 | \$86.00 | 50 | 43 | $11.2 \%$ | 10\% | \$12 |
| 2024 | \$8.00 | \$06.00 | 50 | 44 | 11.29\% | 10\% | 512 |
| 2025 | \$8.00 | 200.00 | 50 | 43 | $11.29 \%$ | 10\% | \$12 |
| 2020 | \$8.00 | \$88.00 | 50 | 443 | 11.29\% | 10\% | \$12 |
| 2027 | \$8.00 | \$96.00 | 50 | 443 | 11.20\% | 10\% | \$12 |
| 2028 | 5a.00 | \$96.00 | 50 | 43 | 1129\% | $10 \%$ | \$12 |

Florida Public Utilities Company - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Cooking |


|  |  | Beneflts |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided <br> Propane Cost | NG Rebate | Avoided <br> Propane Appliance O\&M | TOTAL benerits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cos: | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$134 | \$100 | \$60 | \$294 | \$0 | \$0 | \$0 | \$100 | \$60 | \$40 | \$27 | \$11 | \$238 |
| 2010 | 2 | \$135 | 0 | \$61 | \$195 | 0 | so | 0 |  | \$61 | \$40 | \$27 | \$11 | \$139 |
| 2011 | 3 | \$135 | 0 | \$61 | \$196 | 0 | $\$ 0$ | 0 |  | \$61 | \$40 | \$27 | \$11 | \$140 |
| 2012 | 4 | \$136 | 0 | \$62 | \$197 | 0 | \$0 | 0 |  | \$62 | \$41 | \$27 | \$11 | $\$ 141$ |
| 2013 | 5 | \$136 | 0 | \$62 | \$198 | 0 | \$0 | 0 |  | \$62 | 341 | \$27 | \$11 | \$142 |
| 2014 | 6 | \$136 | 0 | \$63 | \$199 | 0 | $\$ 0$ | 0 |  | \$63 | \$42 | \$27 | $\$ 11$ | \$143 |
| 2015 | 7 | \$137 | 0 | \$64 | \$200 | 0 | so | 0 |  | \$64 | \$42 | \$27 | \$11 | \$144 |
| 2016 | 8 | \$137 | 0 | \$64 | \$201 | 0 | \$0 | 0 |  | \$64 | \$42 | \$27 | \$11 | \$145 |
| 2017 | 9 | \$138 | 0 | \$65 | \$202 | 0 | \$0 | 0 |  | \$65 | \$43 | \$27 | \$11 | \$146 |
| 2018 | 10 | \$138 | 0 | \$66 | \$204 | 0 | \$0 | 0 |  | \$66 | \$43 | \$27 | \$11 | \$147 |
| 2019 | 11 | \$138 | 0 | \$56 | \$205 | 0 | \$0 | 0 |  | \$68 | \$44 | \$27 | \$11 | \$148 |
| 2020 | 12 | \$139 | 0 | \$67 | \$206 | 0 | \$0 | 0 |  | \$67 | \$44 | \$27 | \$11 | \$149 |
| 2021 | 13 | \$139 | 0 | \$68 | \$207 | 0 | \$0 | 0 |  | \$68 | \$45 | \$27 | \$11 | \$150 |
| 2022 | 14 | \$139 | 0 | \$68 | \$208 | 0 | so | 0 |  | \$68 | \$45 | \$27 | \$11 | \$151 |
| 2023 | 15 | \$140 | 100 | \$68 | \$309 | 637 | (\$805) | 167 |  | \$69 | 546 | \$27 | \$11 | \$182 |
| 2024 | 16 | \$140 | 0 | \$70 | \$210 | 0 | \$0 | 0 |  | \$70 | \$46 | \$27 | \$11 | \$154 |
| 2025 | 17 | \$141 | 0 | \$70 | \$211 | 0 | \$0 | 0 |  | \$70 | \$46 | \$27 | \$11 | \$185 |
| 2026 | 18 | \$141 | 0 | \$71 | \$212 | 0 | \$0 | 0 |  | \$71 | $\$ 47$ | \$27 | \$11 | \$158 |
| 2027 | 19 | \$141 | 0 | \$72 | \$213 | 0 | \$0 | 0 |  | \$72 | \$47 | \$27 | \$11 | \$187 |
| 2028 | 20 | \$142 | 0 | \$72 | \$214 | 0 | \$0 | 0 |  | \$72 | 548 | \$27 | \$11 | \$158 |
|  |  |  | Prasert Value of Beneftit |  | \$2,103 |  |  |  |  |  |  | Present Vatue of Costs |  | \$1,516 |
|  |  |  |  |  |  |  |  |  |  |  | Benefitcost Ratio |  | 1.39 |

# Fiorida Public Utilities Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program 

Participants Test - Data

| Appliance Type |  |  |
| :---: | :---: | :---: |
| Cooking |  |  |
| Excalten Remen |  | 15.50 dimarion Rate |
| оам Experse | 1.0\% | Nofiver Rate |
| LP Fual Cose | 1.0\% | No Reas Rates |


| Propant Cost-Table 1 |  |  |  |  | Nutural Oan Supply Cost - Table 2 |  |  |  |  | Nitural Gas Enercy Charge-Table 3 |  |  |  |  | Natural Oan Customer Charge-Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { Cost Per } \\ \text { Oanlon } \end{gathered}$ | Annuat Gastran | Tux Rate | Propurn Cont | Year | Costrer Therm | Annual | Tax Rate | ng Cost | Year | Rata Por | Annuad Themes | Twx Rate | ng Comt | Yont | Monthly cuntrome charge | $\begin{aligned} & \text { Axnual } \\ & \text { Customer } \\ & \text { Change } \end{aligned}$ | Appollance Armainal Therma | $\begin{aligned} & \text { Totel } \\ & \text { Ansual } \\ & \text { Therran } \end{aligned}$ | $\begin{aligned} & \text { Rextio. } \\ & \text { Appllapec to } \\ & \text { Totent } \end{aligned}$ | Tax Restam | Proptrind CNom Chary |
| A | $B$ | c | D | $\mathrm{a}^{*} \times(1+$ c) | A | 日 | c | D | $B^{*} C^{\prime}(1+D)$ | A | 8 | $c$ | D | $\operatorname{acc}(1+\mathrm{D})$ | A | 8 | $c$ | D | E | DIE | $\theta$ | Crimer ${ }^{(1+2)}$ |
| 2009 | \$2.5460 | 48 | 7.5\% | \$134 | 2009 | 50.8000 | 45 | 10\% | 40 | 2008 | \$0.5511 | 45 | 10\% | *27 | 2009 | \$8.00 | \$50.00 | 45 | 43 | 10.18\% | 10\% | \$11 |
| 2010 | \$2.5533 | 49 | 7.5\% | \$135 | 2010 | 50.5080 | 45 | 10\% | * | 2010 | \$0.5541 | 45 | 10\% | 827 | 2010 | \$8.00 | \$06.00 | 45 | 443 | 10.18\% | 10\% | 11 |
| 2011 | \$2.5805 | 49 | 7.5\% | 3138 | 2011 | 50.8181 | 45 | 10\% |  | 2011 | \$0.5311 | 45 | 10\% | 827 | 2014 | 88.00 | \$06.00 | 45 | 443 | 10.15\% | 10\% | 11 |
| 2012 | \$2.5678 | 49 | 7.5\% | 5138 | 2012 | 30.8242 | 45 | 10\% | 34 | 2012 | 50.5341 | 45 | 10\% | 527 | 2012 | \$0.00 | \$96.00 | 45 | 44 | 10.18\% | 10\% | 311 |
| 2043 | \$2.5750 | 48 | 7.5\% | *136 | 2013 | 50.8325 | 45 | 10\% | 4 | 2013 | \$0.5311 | 43 | 10\% | \$27 | 2013 | 88.00 | 39600 | 45 | 443 | 10.4\%\% | 10\% | 511 |
| 2014 | 52.5823 | 49 | 7.5\% | 3138 | 2014 | 50.8458 | 45 | 10\% | $\$ 12$ | 2014 | \$0.5511 | 45 | 10\% | \$27 | 2014 | \$8.00 | \$50.00 | 45 | 443 | 10.18\% | 10\% | \$1 |
| 2015 | \$2.5896 | 49 | 7.5\% | 8137 | 2015 | 50.8492 | 45 | 10\% | 54 | 2015 | 50.5511 | 45 | 10\% | 827 | 2013 | 50.00 | \$566.00 | 45 | 443 | 10.18\% | 10\% | \$11 |
| 2016 | \$2.5908 | 4 | 7.6\% | 4187 | 2018 | \$0.6577 | 45 | 10\% | 84 | 2018 | \$0.5511 | 45 | 80\% | 527 | 2016 | \$8.00 | \$98.00 | 45 | 443 | 10.16\% | 10\% | 811 |
| 2017 | \$2.8041 | 49 | 7.5\% | \$138 | 2017 | \$0.8663 | 45 | 10\% | 43 | 2017 | \$0.5519 | 45 | 10\% | *27 | 2017 | \$8.00 | \$5600 | 45 | 443 | 10.76\% | $10 \%$ | 81 |
| 2018 | \$2.8113 | 49 | 7.5\% | \$138 | 2018 | 50.8748 | 45 | 10\% | 43 | 2018 | \$0.5511 | 45 | 10\% | 527 | 2018 | \$8.00 | \$56.00 | 45 | 443 | 10.15\% | 10\% | 511 |
| 2019 | \$2.5186 | 49 | 7.5\% | *136 | 2018 | \$0.8837 | 45 | 10\% | * 4 | 2019 | \$0.5511 | 43 | 10\% | 527 | 2018 | 58.00 | \$96.00 | 45 | 443 | 10.18\% | 10\% | 111 |
| 2020 | \$2.6399 | 49 | 7.5\% | 5139 | 2020 | \$0.6925 | 45 | 10\% | 4 | 2020 | \$0.5311 | 45 | 10\% | *27 | 2020 | \$8.00 | \$96.00 | 45 | 443 | 10.16\% | 10\% | \$11 |
| 2021 | \$2.8331 | 4 | 7.5\% | \$198 | 2021 | 50.9015 | 45 | 10\% | 46 | 2021 | 50.5511 | 45 | 10\% | * 3 | 2021 | 38.00 | \$06.00 | 45 | 443 | 10.16\% | 10\% | 811 |
| 2022 | 52.8404 | 49 | 7.5\% | 5138 | 2022 | \$0.9105 | 45 | 10\% | 546 | 2022 | \$0.5511 | 45 | 10\% | 527 | 2022 | 38.00 | \$56.00 | 45 | 43 | 10.10\% | 10\% | 14 |
| 2023 | \$2.6478 | 49 | 7.5\% | \$140 | 2023 | \$0.8198 | 45 | 10\% | $4{ }^{4}$ | 2023 | \$0.5511 | 45 | 10\% | *27 | 2023 | 38.00 | \$5900 | 45 | 43 | 10.10\% | 10\% | \$11 |
| 2024 | \$2.6549 | 48 | 7.5\% | 5140 | 2024 | 50.9288 | 45 | 10\% | $4{ }^{4}$ | 2034 | \$0.5541 | 45 | 10\% | \$27 | 2024 | \$0.00 | \$96.00 | 45 | 443 | 10.18\% | 10\% | 811 |
| 2025 | \$2.6822 | 48 | 7.5\% | *41 | 2025 | 50.8381 | 45 | 10\% | 4 | 2025 | 50.5511 | 45 | 10\% | 527 | 2025 | \$8.00 | \$96.00 | 45 | 43 | 10.18\% | 10\% | 811 |
| 2028 | \$2.8894 | 49 | 7.5\% | \$141 | 2028 | \$0.9474 | 45 | 10\% | 44 | 2026 | \$0.5511 | 45 | 10\% | 527 | 2026 | \$8.00 | 596.00 | 45 | 44 | 10.18\% | 90\% | *11 |
| 2027 | \$2.8787 | 49 | 7.5\% | 5141 | 2027 | \$0.9569 | 45 | 10\% | 44 | 2027 | \$0.5511 | * | 10\% | 827 | 2027 | 58.00 | \$06.00 | 45 | 43 | 10.16\% | 10\% | *1 |
| 2028 | 32.8838 | 46 | 7.3\% | $\$ 142$ | 2028 | \$0.0665 | 45 | 10\% | 848 | 2008 | \$0.5511 | 45 | 10\% | 57 | 2028 | \$8.00 | \$9800 | 45 | 443 | 10.18\% | 10\% | 311 |

M5d \%or
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## Attachment 2.4

Associated Gas Distributors of Florida
Energy Conservation Program Petition Residential Propane Distribution System Conversion Program March, 2009

Indiantown Gas Company
Rate Impact Measurement Test
Participants Test
Summary of RIM Test and Participants Test Results

|  | Proposed <br> Allowance |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Gas Storage Tank Watipants Test Heating | $\$ 350$ |  | RIM Test |  |
| Gas Tankless Water Heating | $\$ 450$ | 1.75 | 1.06 |  |
| Gas Heating | $\$ 350$ | 1.75 | 1.02 |  |
| Gas Clothes Drying | $\$ 100$ | 1.46 | 1.11 |  |
| Gas Cooking | $\$ 100$ | 1.45 | 1.08 |  |

## Indiantown Gas Company - AGDF Energy Conservation Filing 2009

 Residential Propane Distribution System Conversion Program RIM Test - Results| Appliance Type |
| :--- |
| Storage Tank Water Heating |




| Investiment Carying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | ${ }_{5} 5$ | - 8 | 7 | B | $\stackrel{\square}{\text { cre }}$ |
|  | Sumaty | Coxetioment | Suruce |  | Tota | $\mathrm{cosis}^{\text {a }}$ | Ratio of Thems | trvastment |
| Yast | Man | Main |  |  | Inyestmom | ctpess | conamed To Tota | Carryeg cost |
| \%ima | sien | 5500 | ह⿵门 | 8183 | S1,023 | ${ }^{6} 838$ | 3E33\% | ${ }_{536}$ |
| 3210 | 507 | 5684 | 5254 | \$157 | 5988 | 2.25\% | 38.37\% | 35 |
| 2014 | ${ }_{89} 8$ | 3468 | 5243 | 8154 | 5356 | 8.2.9\% | $38378 \%$ | 834 |
| 2012 | \$9\% | 1443 | 5235 | \$145 | 5829 | 2.25\% | 36.37\% | ${ }_{83} 3$ |
| 2013 | 58 | \$438 | 5227 | 5138 | 3292 | 825\% | $3837 \%$ | 532 |
| 2014 | \$85 | 3/24 | 5220 | \$136 | \$863 | 9.25\% | 30.37\% | 531 |
| 2045 | 882 | 5410 | ${ }^{2213}$ | 5129 | ${ }^{513} 3$ | ${ }^{\text {a } 285}$ | 38.37\% | 538 |
| 2016 | 579 | 5398 | s2ee | 8124 | ${ }^{3885}$ | ¢, 23\% | 38.37\% | 528 |
| 2047 | ${ }^{378}$ | 8383 | ${ }^{169}$ | \$119 | s77\% | 925\% | 36,37\% | 52 |
| 2028 | 573 | 5370 | 5192 | 8148 | ${ }^{3746}$ | 8.25\% | 38.37\% | 527 |
| 2010 | ${ }^{3} 1$ | \$358 | ${ }_{5188}$ | \$110 | 3728 | 8.25\% | ${ }^{38} 3 \times 8$ | 525 |
| 2020 | ${ }^{684}$ | $5 \times 6$ | 5180 | 5108 | s7a | 8.25\% | 36.37\% | 325 |
| 2024 | sf\% | 5335 | ${ }^{5174}$ | 312 | ${ }^{3878}$ | ${ }^{0.258 \%}$ | 30.37\% | 324 |
| 202 | 305 | ${ }^{3324}$ | 318 | ${ }^{506}$ | 3065 | 8.25\% | 36.3\%\% | 523 |
| 2023 | ${ }^{583}$ | 5313 | ${ }^{18162}$ | ${ }^{384}$ | s3332 | 8.25\% | 34.37\% | 32 |
| ${ }^{2624}$ | 561 | 3303 | 8157 | ${ }^{890}$ | 5647 | 2.25\% | 39.37\% | s22 |
| 2025 | 359 | sam | 8152 | ${ }_{56} 6$ | 5589 | 8.25\% | 36.73\% | ${ }^{32}$ |
| ${ }^{2026}$ | 557 | ${ }^{33} 838$ | ${ }^{3147}$ | ${ }^{384}$ | \$571 | 0.25\% | 36.9\%\% | 520 |
| ${ }^{2027}$ | ${ }^{558}$ | 5274 | ${ }_{5142}$ | 889 | ${ }_{355}$ | ${ }^{2.26 \%}$ | 3837\% | 530 |
| 2028 | 353 | 5355 | ${ }^{3137}$ | ${ }^{378}$ | 5533 | 0.25\% | 343\%\% | 3 sis |


|  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| , |  |  |  |  |  |  |  |  |
|  | Montly | nanas | Rato Therm: | Inval Ra | An¢0.ui | ato Thems | , R | Totan icicrinemal |
| ${ }^{\text {Veor }}$ | $\frac{\text { Adn Cost }}{\text { S } 173}$ | $\frac{84 m}{}$ | $\frac{T \text { atal }}{3 \text { Sonsun }}$ | $\frac{\text { Adm }}{\text { Stost }}$ | $\frac{084095}{8625}$ | 3 $3837 / 6$ | $\frac{084}{80}$ | Aden ${ }^{\text {asin Cosi }}$ |
| 2019 | 51.75 | 52 | 33.37\% | s8.06 | 56.31 | 38.37\% | sis | \$11 |
|  | 3178 | 321 | 38.3m | ${ }^{5808}$ | ${ }^{68} 38$ | 33.37\% | 52 | s: |
| 2012 | 51.78 | 521 | 36,3\%\% | 58.68 | 56.44 | 38.37\% | $\pm 2$ | s" |
| 2013 | \$1.80 | 532 | 39.37\% | 5844 | 3aso | 38.3\%\% | * | 314 |
| 2014 | \$1.82 | 523 | 38.37\% | 58.44 | 50.57 | 38.37\% | s | ${ }^{11}$ |
| 2015 | s1.as | 322 | 38.37\% | 53.4 | sf $\mathrm{Ba}_{3}$ | 38.37\% | ${ }^{3}$ | \$11 |
| 2018 | si.1s | 522 | ${ }^{383} 374$ | 5848 | 88,70 | 38.37\% | s | si1, |
| 209 | 3:187 | s22 | 36,37\% | ${ }^{58.44}$ | 3677 | 36.37\% | \$3 | 814 |
| 2048 | 31,69 | 323 | 38.37\% | ${ }_{58,38}$ | ${ }^{36} 989$ | 34374\% | ${ }^{53}$ | $\stackrel{11}{ }$ |
| 2048 | 3:919 | 523 | 39.37\% | S8.83 | 5680 | 36.3\%\% | ${ }_{3} 3$ |  |
| 2020 | ${ }^{31.93}$ | \% 23 | 8, 3 3\% | 58.69 | 86,87 | 3.3.3\% | ${ }^{3}$ | 812 |
| ${ }^{2021}$ | 51.85 | ${ }^{823}$ | 3237\% | stas | 57.04 | 38.37\% | 3 | 812 |
| 2023 | \$1.87 | ${ }^{3} 28$ | 39,35\% | saz 21 | 57.11 | 38.37\% | ${ }^{3}$ | 512 |
| ${ }^{2023}$ | \$1.69 | ${ }^{324}$ | 30.37\% | 58.21 | 57.15 | 38.37\% | 53 | 812 |
| ${ }^{2024}$ | 32.04 | ${ }^{3} 82$ | 3m.3\%\% | ${ }^{3021}$ | 5726 | 38.37\% | 3 | 52 |
| 2025 | \$203 | 524 | за з3\% | s0.21 | ${ }_{5733}$ | ${ }^{38} 37 \%$ | 53 | ${ }_{5}^{512}$ |
| 2028 | \$2.05 | 545 | 39.3\% | 89.58 | 57.40 | 38.37\% | ${ }^{3}$ | ${ }^{512}$ |
| ${ }_{2028}^{2027}$ | ${ }_{5209}^{5207}$ | ${ }_{825}^{825}$ |  |  | (\%785 |  | ${ }_{58}^{53}$ | ${ }_{512}^{\$ 12}$ |


| Gas Cosis |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Themms | Gas auphy | Gias Sucp ${ }^{\text {a }}$ |
| ${ }_{\text {Y }}^{\text {cus }}$ | \% | Rete | $\frac{\text { cos }}{40 \text { did }}$ |
| 2040 | - | ${ }^{\text {axem }}$ |  |
| 201 | 70 | Socexiz | ${ }^{3148}$ |
| 2012 | 90 | 50.8513 | S146 |
| гтя | 170 | 50.9888 | \$148 |
| 2014 | 170 | 50.8786 | 3199 |
| 2015 | 178 | sfagra | sist |
| 2016 | 70 | ${ }^{3088863}$ | 3152 |
| 2017 | 170 | 50.8053 | \$154 |
| $20 \% 6$ | 170 | 50,043 | 8155 |
| 2019 | ${ }^{70}$ | 50.523: | 8157 |
| $2 z^{2020}$ | 170 | \$0.9327 | 8159 |
| ${ }^{2029}$ | 170 | 80 | 8160 |
| 2023 | 170 | 80.6512 | st6z |
| ${ }^{2023}$ | \% | 50 | 8163 |
| 2029 | 9 | 80.6720 | sims |
| $2{ }^{2}$ | 70 | 80.sear | 5187 |
| 2:28 | 770 | stami | 366 |
| ${ }_{2028}^{2027}$ | ${ }_{170}$ | Sitemo | Stif |

# Indiantown Gas Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program <br> RIM Test - Results 

| Appliance Type |
| :--- |
| Tankless Water Heating |



Appliance Type
ankless Water Heating

|  <br> (4s Erinergy Charge Euzalator G能 W (xtomer Charge Escalator Osmantlation Excatator |  |  |  |
| :---: | :---: | :---: | :---: |
| 19 |  |  |  |
| Ravenue-Energy Charg |  |  |  |
|  |  |  |  |
| Yoar Treme mase Rato torat Charge |  |  |  |
| ${ }^{20 \times 4}$ | (56) | ${ }^{30} 36347$ |  |
| 2040 | ${ }^{150}$ | ${ }^{50.3617}$ | cea |
| 2081 | 150 | \$0.3917 | so |
| ${ }^{2015}$ | +150 | 50.3974 | 859 |
| 2014 | 150 | Stesm | 559 |
| 2045 | 450 | 20.3817 |  |
| 2016 | 150 | 50.3847 | 59 |
| 2087 | 450 | 50.3947 | 59 |
| 2018 | 450 | s0.3047 | \$69 |
| 2018 | 150 | \$0.3947 | 35 |
| 2020 | ${ }^{15}$ | S0.3947 | ss |
| 2024 | 150 | s0.3817 | 5 |
| 2022 | 150 | \$0.3917 | si |
| 2023 | 150 | so. 3847 |  |
| 2024 | 150 | ${ }^{20.3847}$ | ${ }^{59}$ |
| 2035 | [50 | *0.3447 | ${ }^{339}$ |
| 2026 | \$50 | 50.3317 | 539 |
| ${ }^{2027}$ | 450 |  |  |
| 2028 | +50 | s0, 3997 | 559 |


| Investment Carrying costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4. | 5 | 5 | 7 | ${ }^{8}$ | Pr8 |
|  | Sumbty Devericment |  | Savice |  | $\mathrm{rchat}^{\text {a }}$ | Corst |  |  |
| Year |  | Main |  | Stele | Hevestiont |  |  |  |
| ${ }^{2006}$ | S100 | ${ }^{5600}$ | ${ }^{32860}$ | ${ }^{5169}$ |  | ${ }^{\text {8 }}$ 254\% |  |  |
| $20 \% 10$ | ${ }^{897}$ | ${ }^{3684}$ | 325 | 5157 | Smbis | 8.25\% | 35.48\% | 332 |
| ${ }_{2012}^{2041}$ | ¢ |  | ${ }_{5235}^{323}$ | ST151 <br> S14 | ${ }_{\text {size }}$ | \% | 35.46\%\% | (38 |
| 2013 | see | sass | ${ }^{3227}$ | \$139 | tsan | 8,25\% | ${ }^{35} 485 \%$ | 329 |
| 2014 | 535 | 564 | 3220 | \$134 | seea | 9.25\% | 35.45\% | s28 |
| 2015 | S82 | \$410 | 5213 | 528 | sexd | 9.25\% | (1540\% | ${ }^{27}$ |
| 2046 | 576 | 53300 | 520e | 5124 | stes | ¢,25\% | 48\% | 526 |
| 2097 | 578 | ${ }_{5383}$ | S198 | 3 m | 577 | 8.25\% | 35.66\% | 525 |
| 2068 | 573 | 5370 | 5182 | 514 | 5749 | 6.23\% | 35.45\% | 525 |
| ${ }^{2019}$ | 571 | \% | 5188 | S10 | 8295 | 820\% | 55.48\% | 828 |
| 2020 | \$69 | S346 | 5180 | 5108 | s7el | 8.2.5\% | 35.46\% | \$23 |
| 2028 | sa7 | 5335 | ${ }^{174} 4$ | \$102 | 878 | 8,25\% | 554\% | 522 |
| 2022 | 535 | 5324 | \$168 | S0E | scos | 8.23\% | 35.47\% | 521 |
| 2023 | ses | \$313 | \$182 | ${ }^{394}$ | fe33 | 8.25\% | ${ }^{35468}$ |  |
| 2024 | sta | 5333 | \$157 | 5 | 8611 | ${ }^{\text {9,25\% }}$ | W5 4e\% | 320 |
| 2025 | 359 | 5293 | 3152 | ${ }^{\text {sa7 }}$ | *891 | 8.25\% | 3548\% | \$19 |
| 2026 | 357 | \$283 | s14 | s89 |  | 8,25\% | 35.46\% |  |
| 2027 | \$35 |  | ${ }^{3142}$ | ${ }^{381}$ | ${ }_{5}^{555}$ | ${ }^{8.255 \%}$ | 3548\%\% | sts |
| 2023 | 853 | 5265 | 5137 | s78 | 8533 | 8.26\% | 35 $885 \%$ | \% |


| incremental Custamer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5354 | 8 | 7 | $8 \times 87$ | $5 \times$ |
|  | mertus | Annaat |  | Anmal Remo | A.nesal | Ratio Therms $\mathrm{To}^{\text {o }}$ | Ancuat Rato | Toasal Inciemenlad |
| Yex | Adm Cost | Atat cos | Tatal Consuried |  | -848cost | Total Coramas | osuctas | Atimesem Cast |
| 2069 | ${ }^{31.73}$ | ${ }^{321}$ | 35.66\% | 57.48 | 56.25 | ${ }^{35464}$ | ${ }^{52}$ | ${ }^{510}$ |
| 2019 | \$1.75 | 321 | $35.46 \%$ | 57.45 | ${ }^{56} .34$ | 35, $69 \%$ | \$2 | 850 |
| 291 | 5178 | 521 | ${ }^{35}$ \&8\% | 57.45 | se.3s | 35.49\% | 5 | ${ }_{5} 50$ |
| 2012 | 51.78 | 52.1 | 35.66\% | 57.45 | ${ }^{88}+4$ | 35.48\% | \$2 | 540 |
| 2013 | \$1.80 | 322 | 35.48\% | 57.80 | sa, 50 | 35.48\% | *2 |  |
| 2014 | ${ }^{1} 1.82$ | 522 | ${ }^{3546 \%}$ | 57.80 | ${ }^{5887}$ | 35.46\% | ${ }^{32}$ | \$49 |
| 29015 | \$1.24 | 522 | 3546\% | 87.50 | ${ }_{56} 83$ | 3546\%\% | ${ }^{32}$ | \%0 |
| 2016 | \$1.85 | ${ }^{322}$ | 35.49\% | 87.89 | 56.70 | ${ }^{35} 468$ | ${ }^{32}$ | 840 |
| 2017 | 81.87 | 522 | 35.46\% | \$7.80 | 56.77 | $35.66 \%$ | ${ }^{32}$ | ${ }^{5110}$ |
| 2018 | ${ }^{19} 8$ | ${ }^{2} 23$ | 35.48\% | \$8.18 | S6.24 | 35.46\% | 32 | ${ }^{511}$ |
| 2013 | \$1,89 | s23 | ${ }^{33} 4858$ | \$8.26 | ${ }^{5680}$ | $3{ }^{3} 468$ | s2 | s!1 |
| ${ }^{2020}$ | 5:83\% | ${ }_{5} 23$ | 35.46\% | 53.16 | 56.97 | 35.40\% | ${ }^{82}$ | ${ }^{51}$ |
| 2024 | 54.85 | ${ }^{523}$ | 35.4 e\% | S8.18 | 57.04 | ${ }^{33} 8884$ | 32 | \$11 |
| 3022 | \$1.87 | 524 | ${ }^{3} 468 \%$ | se.51 | 82.14 | 35.48\% | 53 | 51 |
| 2023 | \$1.99 | ${ }^{32} 4$ | \$580\% | 58.51 | 5778 | 35.49\% | 33 | 811 |
| 2024 | s2,0! | 524 | 35.46\% | 58.51 | 57.28 | 36.46\% | ${ }^{3}$ | 814 |
| 2025 | 52.03 | 524 | ${ }^{3546 \%}$ | 58.54 | ${ }^{87} 38$ | 35.46\% | $5^{3}$ | s, |
| ${ }^{2028}$ | 52.05 | ${ }^{2} 25$ | 35.49\% | ${ }^{88.87}$ | \$7.40 | ${ }^{35} 5.45 \%$ | ${ }^{3}$ | \$11 |
| 2027 | 5207 | s25 | 3,46\% | s8.87 | ${ }^{37} / 88$ | ${ }^{3546 \%}$ | 3 | \$12 |
| 2028 | 52.09 | 825 | 36.48\% | 58.87 | 37.55 | $35.46 \%$ | 83 | \$9 |


| Gas cosis |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 3 |
|  | Trems | fex themy | Gas Supply |
| Yast |  | Sumplest | ${ }_{5054}$ |
| 2099 | 190 | ${ }^{1.3350}$ | ${ }^{3125}$ |
| 2910 | 150 | 50.8844 | ${ }^{127}$ |
| 2041 | 150 | sachsis | ${ }^{128}$ |
| x 212 | 150 | so.8813 | ${ }^{129}$ |
| ${ }^{293}$ | 150 | sabgsa | 133 |
| 2046 | 150 |  | \$132 |
| 2055 | 150 | ${ }^{30} 88874$ | \$139 |
| 2 mag | 150 | $30.888^{3}$ | 8134 |
| 2047 | 150 | 58.8953 | \$136 |
| 2018 | 350 | 518143 | 8137 |
| 2218 | 150 | \$0,0235 | 5389 |
| 2028 | :50 | ${ }^{30} 6327$ | 846 |
| ${ }_{2202}^{202}$ | ${ }_{150}^{150}$ | 30, 84280 |  |
| ${ }_{2023}$ | ${ }_{150}^{150}$ | 50, 5 | Stis |
| 2024 | 150 | sames | 5146 |
| 2025 | 150 | 50:8803 | 3147 |
| 2028 | 150 | s0,990 | \$199 |
| ${ }^{2027}$ | \% | \$1.0000 | \$150 |
| 2028 | S50 | 519100 | \$154 |

## Indiantown Gas Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Heating System |


|  | Incremental Revenue Energy Charge | Incremental Revenue Cost of Gas | incremental Revenue Cust. Charge | Total Gas Ravenue | Gas Supply Cost | $\begin{gathered} \text { Investment } \\ \text { Carrying } \\ \text { Costs } \\ \hline \end{gathered}$ | Incremental Customer Costs | $\begin{gathered} \text { Program } \\ \text { Cost } \\ \hline \end{gathered}$ | Total 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 |
| 2009 | \$70 | \$149 | \$43 | \$262 | \$149 | \$38 | \$11 | \$353.03 | \$551 |
| 2010 | \$70 | \$150 | \$43 | \$263 | \$150 | \$37 | \$11 | \$3.03 | \$201 |
| 2011 | \$70 | \$152 | \$43 | \$265 | \$152 | \$36 | \$11 | \$3.03 | \$201 |
| 2012 | \$70 | \$153 | \$43 | \$266 | \$153 | \$34 | \$11 | \$3.03 | \$202 |
| 2013 | \$70 | \$155 | \$43 | \$268 | \$155 | \$33 | $\$ 11$ | \$3.03 | \$202 |
| 2014 | \$70 | \$156 | \$43 | \$270 | \$156 | \$32 | \$14 | \$3.03 | \$203 |
| 2015 | \$70 | \$158 | \$43 | \$271 | \$158 | \$31 | \$12 | \$3.03 | \$203 |
| 2016 | \$70 | \$160 | \$43 | \$273 | \$160 | \$30 | \$12 | \$3.03 | \$204 |
| 2017 | \$70 | \$161 | \$43 | \$274 | \$161 | \$29 | \$12 | \$3.03 | \$205 |
| 2018 | \$70 | \$163 | \$43 | \$276 | \$163 | \$28 | \$12 | \$3.03 | \$206 |
| 2019 | \$70 | \$164 | \$43 | \$278 | \$164 | \$27 | \$12 | \$3.03 | \$206 |
| 2020 | \$70 | \$166 | \$43 | \$279 | \$166 | \$26 | \$12 | \$3.03 | \$207 |
| 2021 | \$70 | \$168 | \$43 | \$281 | \$168 | \$25 | \$12 | \$3.03 | \$208 |
| 2022 | \$70 | \$169 | \$43 | \$282 | \$169 | \$24 | \$13 | \$3.03 | \$209 |
| 2023 | \$70 | \$171 | \$43 | \$284 | \$171 | \$23 | \$13 | \$3.03 | \$210 |
| 2024 | \$70 | \$173 | \$43 | \$286 | \$173 | \$23 | \$13 | \$3.03 | \$211 |
| 2025 | \$70 | \$174 | \$43 | \$288 | \$174 | \$22 | \$13 | \$3.03 | \$212 |
| 2026 | \$70 | \$176 | \$43 | \$289 | \$176 | \$21 | \$13 | \$353.03 | \$564 |
| 2027 | \$70 | \$178 | \$43 | \$291 | \$178 | \$21 | \$13 | \$3.03 | \$215 |
| 2028 | \$70 | \$180 | \$43 | \$293 | \$180 | \$20 | \$13 | \$3.03 | \$216 |

Present Value
of Benefits
$\$ 2,680$

Present Value
of Costs $\qquad$

Benefit/Cost
Ratio

| Appliance Type |
| :---: |
| Heating System |


| Fued Rata Exalator | 4.\% | Dapreation Rato - Subity Mein |
| :---: | :---: | :---: |
| Gas Enogy cmarge Emalimor | * |  |
| Gas Cusiome crarse Eccatar | \% | Dafmaitho Rate - Serice Ling |


| Revenue - Energy Charge |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Therms | Base Reto | , |
| ${ }^{20008}$ | ${ }^{178}$ | ${ }_{803877}$ |  |
| 2010 | 178 | so.3817 | ${ }^{478}$ |
| 20.4 | 78 | ${ }^{50.3819}$ | ${ }^{78}$ |
| ${ }_{2012}^{2012}$ |  |  | ${ }_{878}$ |
| 2019 | ${ }^{178}$ | 50.3017 |  |
| 2015 | 17\% | so.347\% | 87 |
| 2096 | ${ }^{178}$ | ${ }^{3} \mathbf{3} 3817$ | 5/9 |
| 2097 | 178 | \$0.3647 | ${ }^{878}$ |
| 2049 | \%88 | ${ }^{30} 8.3847$ | \%89 |
| 2079 | 1788 | ${ }^{80} 8.3887$ | 5780 |
|  | ${ }^{178}$ | ${ }^{83} 88967$ | 570 |
| ${ }_{2022}^{2021}$ | (188 | \%03617 | \%78 |
| 2022 2023 | ${ }^{178}$ | 803947 803987 | 5760 |
| 2024 | ${ }^{78}$ | ${ }^{50} 3817$ | 570 |
| ${ }^{2025}$ | ${ }^{178}$ | 503917 | \$70 |
| ${ }_{2028}^{2028}$ | ${ }^{788}$ | 80.3917 |  |
| $\underset{\substack{2027 \\ 2028}}{ }$ | \% 78 | ${ }_{80}^{50.3917}$ | 870 |


| Revenue-Costot cias |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 4 | 273 |
|  | Thems | Fuel Rate | 连 |
| 2009 | ${ }^{174}$ | 50.8380 |  |
| 2010 | ${ }^{778}$ |  | \$150 |
| ${ }_{2012}^{2011}$ | \%\% |  | (1583 |
| 2013 | ${ }_{78}$ |  | 8135 |
| 2046 | 178 | танан | 5186 |
| 2045 | ${ }^{188}$ | s5.6874 | \$158 |
| ${ }^{2018}$ | 778 | spage | \$180 |
| 2317 | ${ }^{178}$ | 500053 | ${ }^{184}$ |
| 2019 | ${ }^{188}$ | 50.943 | ${ }^{183}$ |
| 2019 | ${ }^{178}$ | ${ }^{\mathbf{5 a}, 4238}$ | 314 |
| 2020 | ${ }^{178}$ | ${ }^{50,8227}$ | ${ }^{186}$ |
| 2027 | ${ }^{178}$ | 50.9220 | ${ }^{188}$ |
| 2022 | ${ }^{178}$ | 508544 | ${ }^{1989}$ |
| ${ }_{2023}^{2023}$ | 178 | 5ase | 8171 |
| 2024 | ${ }^{178}$ | 50,8780\% | ${ }^{177}$ |
| ${ }^{2025}$ | ${ }^{178}$ | \$0,003 | 5174 |
| ${ }_{2}^{2022}$ | ${ }^{178}$ | ${ }^{\mathbf{S a}} \mathbf{5}$ | \$178 |
| ${ }_{2028}^{2027}$ | $\underset{178}{178}$ | ${ }_{51000}^{51.00060}$ | (1788 |


| Revenue-Customer Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 |  | $\cdots$ | 43 |
|  | Masing |  | Rexic Thamms |  |
|  |  | Annua Clustomer |  | Prontioe |
| 2009 | \$9.00 | \$104.100 | 40.18\% | ${ }_{543}$ |
| 2010 | \$9.90 | \$10e.00 | 40.16\% | ${ }_{4} 4$ |
| 2011 | 59.00 | \$100.00 | 40.15\% | 43 |
| 2012 | sa. 50 | \$100.00 | 20.18\% | 34 |
| 2013 | \$5.00 | \$100.co | 40.18\% | ${ }_{54}$ |
| 2014 | 50.00 | 5108.80 | 40.19\% | 43 |
| 2045 | 50.e0 | \$100.c0 | 40.14\% | 8 |
| 2015 | 5uc | \$00.ce | 40.18\% | \% 4 |
| 2007 | 30.00 | srowe | 40:34\% | 4 |
| 234 | 50:0 | \$100.06 | 43.15\% | 43 |
| 2048 | 50\% | \$108.0 | 40.818 | sa |
| 2020 | $54 \times 8$ | 310830 | 43.18\% | 43 |
| 2021 | *0.30 | 31050.08 | 40.88\% | 54 |
| 2322 | 3103 | stoxes | 40.19\% | 43 |
| ${ }_{2023}^{2023}$ | 5000 | 40800 | 40.19\% | ${ }^{2} 4$ |
| 2024 | 88.00 | \$108.co | 40.48\% | 43 |
| 2026 | ${ }^{50.00}$ | \$108.09 | 40.78\% | н3 |
| ${ }_{2027}^{2026}$ | \$5.00 | \$108.00 | 40.18\% | 843 |
|  | ${ }_{59,00}^{89000}$ |  | ${ }_{4}^{40.109 \%}$ | ${ }_{543}$ |


| tinvestment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | sumpy | Dovempment | Serves |  | Teiaid | cosem | Rato of Thems | frws chwer |
| ${ }_{\text {roar }} 2009$ | $\frac{\text { man }}{3100}$ | ${ }_{\text {Nam }}$ | - 5198 | mateor | nexyeman | $\frac{38505 t}{0.255 \%}$ | Conssmedto toiay | ${ }^{\text {canymg }}$ |
|  | 897 | ${ }_{5}^{6886}$ | ${ }^{325}$ | ${ }_{3157}$ | зов6\% | 9.25\% | 40.18\% | 897 |
| 2011 | 594 | 3488 | \$243 | ${ }^{515}$ | sp5s | Q 238 | 43.189\% | ${ }^{3} 5$ |
| 2012 | 891 | s453 | ${ }_{5235}$ | \$145 | 5924 | ${ }^{5.25 \%}$ | 10.18\% | ${ }^{36}$ |
| 2013 | 88 | 5438 | ${ }^{3227}$ | \$139 | st92 | $8.25 \%$ | 40.18\% | 833 |
| 2014 | ${ }^{885}$ | 3424 | ${ }^{3220}$ | 514 | \$663 | ${ }^{\text {Q }}$.25\% ${ }^{5}$ | 边 | (332 |
| 2015 | saz | 8510 | 3213 | \$120 | ${ }_{86 \times 1}$ | 0.3\% | 40 19\% | ${ }^{331}$ |
| 2016 | 879 | ${ }_{\text {s396 }}$ | ${ }^{2206}$ | 8184 | 8866 | (125\% | 40.18\% | ${ }^{336}$ |
| 2017 | ${ }^{\text {778 }}$ | *33 | 81 ¢ ${ }^{\text {a }}$ | 819 | \%77 | 925\% | 40.19\% | 528 |
| 2018 | ${ }^{73}$ | 5370 | 4182 | $81 / 84$ | \$789 | 0.3\% | 60.78\% | ${ }^{328}$ |
| 2019 | ${ }^{77}$ | 3158 | \$188 | \$10 | \$725 | 2.2350 | 10918\%\% | ${ }^{27}$ |
| 2020 | 86 | 5 \% | 5189 | \% | 5780 | 80.25\% | \%0.18\%\% | ${ }^{28}$ |
| 2024 | 567 | ${ }_{5335}$ | \$174 | 5102 | wato | 929\% | 40.18\% | 325 |
| 2028 | * | ${ }^{3324}$ | \%e8 | 898 | \$555 | 2.xs\% | 40,8\% | 524 |
| 2023 | 88 | 5373 | ster | 504 | 5638 | 8.25\% | 40.78\% | 523 |
| 2024 | 361 | ${ }_{5} \mathbf{4} \times 3$ | 815 | 348 | *8\% | (125\% | 40:8\% | 523 |
| 2025 | ${ }^{85}$ | 8203 | 5152 | ${ }_{687}$ | \$59, | $0^{206 \%}$ | 70.78\% | ${ }_{3} 22$ |
| 828 | ${ }^{\text {spa }}$ | *293 | 1497 | 58 | S5\% | 8.25\% |  | 31 |
| 2027 | ${ }^{3} 5$ | 5274 | ${ }^{3142}$ | 881 | \$558 | ¢. $25 \%$ | 10.18\%\% | ${ }^{23}$ |
|  | ${ }_{553}$ | 1285 | \$137 | ${ }^{578}$ | ¢533 | 9.25\% | 4919\% | \$20 |



| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 13 |
|  | Twems | Per Tham | 5 mamp |
| Yeas |  | Suptics |  |
|  | 18 | se.33e0 | \%14 |
| 2060 | ${ }^{178}$ | samata | s1sn |
| 2211 | \%78 | so.5s24 | \$152 |
| ${ }_{2019}$ | \% | 30.8673 | \$1938 |
|  | \% | 80.89\% |  |
|  | 17 | s0.8780 | \$146 |
|  | \% | 30.887 |  |
| 208 | 780 | S0.893 | sra |
| 2 | \% | 5ase | 316 |
| 248 | ${ }^{788}$ | Scen | S163 |
| 20\% | ${ }^{7}$ | ${ }^{50823}$ | \%164 |
| 220 | 78 | S0.3327 | *1468 |
| 20: | \%8 | 80w\% | \$368 |
| $2 \times 2$ | 78 | 50314 | 5169 |
| 2 | ${ }^{788}$ | 50.80 | \%** |
| ${ }^{2024}$ | ${ }^{788}$ | s6ars | 317 |
| 2025 | ${ }^{773}$ | S0.889 | ${ }^{174}$ |
| ${ }^{2229}$ | ${ }^{78}$ | 80.0904 | *n7e |
| ${ }_{223}^{2227}$ | 77 | ${ }^{5}+1000008$ | 5778 |

## Indiantown Gas Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Clothes Drying |



| Appliance Type |
| :---: |
| Clothes Dring |


| Fupat Ree Ememex | 20\% | Eperscrstion Rate - Supply Man | 30\% |
| :---: | :---: | :---: | :---: |
| Gus Energy Crarge Excalimor | ** |  | 3.304 |
| cas Cudioma Chayge Exsmatior | \% |  | 3,30\% |
| Losmmanaman Escalator | 1.0\% | Doprearation Fate - Mater | 3.00\% |



| Investment Cartyitg Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |  |  | 7 | $\because$ | 8 8.7a |
|  | Supply | Devalopras: | Serice |  | Toas | ${ }_{\text {cost }}$ | Raino of Thems | Hivestron |
| ${ }_{\text {Y }}^{\text {Year }}$ | ${ }_{\text {M }}^{\text {M }}$ Sin | ${ }_{\substack{\text { Ma/n } \\ 3 \\ \hline 50 \%}}$ | ${ }_{\text {Ling }}^{328}$ | Meler | $\frac{\text { nyussmen }}{81 / 23}$ | $0^{0.50564}$ | cansumes To Totic |  |
| ${ }_{2010}^{2009}$ | ¢ | cois | ${ }_{5}^{8281}$ | S1938 |  | ${ }^{9.2505 \%}$ | 1123\% | \% |
| 2091 | 504 | \$568 | 82\%3 | \$151 | \$565s | 9.25\% | ${ }_{11}^{11.2988}$ | 316 |
| 2048 | 591 | 3653 | srass | 8145 | ${ }_{5024}$ | 823\% | 41.29\% | \$16 |
| ${ }^{20: 3}$ | 586 | 5439 | \$227 | ง139 |  | 923\%\% | 12.29\% | 8 |
| ${ }^{2014}$ | sas | 5428 | ${ }^{3} 270$ | 5:38 | ${ }^{\text {sfe3 }}$ | 9.25\% | 11.28\% | 9 |
| 2015 | 582 | \$40 | 5213 | s129 | ${ }^{83}$ | $9.25 \%$ | 11.20\% | 39 |
| 2016 | 879 | ${ }^{3966}$ | 5206 | \$126 | 8805 | $8.25 \%$ | 19.20\% | ${ }^{3}$ |
| 2017 | \$74 | 5393 | s,998 | 818 | 577 | $9.25 \%$ | 12.28\% | ${ }^{8}$ |
| 2016 | 575 | 8570 | 8192 | ${ }^{5114}$ | 5748 | $9.235 \%$ | 1128\% | $s{ }^{\text {a }}$ |
| 2016 | 3 | ${ }^{3958}$ | ${ }^{5186}$ | 510 | 5725 | 8.25\% | 11.20\% | 8 |
| 2020 | sce | 5336 | 5180 | \$10e | ${ }^{7} 701$ | 8.25\% | 11.25\% | 87 |
| 2027 | 567 | 5338 | \$174 | \$102 | 3676 | 8.25\% |  | 8 |
| 2022 | sas | 5324 | 5188 | ${ }^{39}$ | \$855 | 9.35\% | 11.29\% | 5 |
| 20023 | se3 | 5313 | 5162 | 504 | \$3,32 | $0.25 \%$ | 11.29\% | 87 |
| ${ }^{2024}$ | 361 | \$203 | 3157 | 590 | 581 | 9.25\% | 11.29\% | s |
| ${ }^{2025}$ | \$59 | 5238 | 3152 | ${ }_{587}$ | \$591 | 90.29\% | 11.29\% | * |
| ${ }^{2026}$ | 557 | 5233 | 8147 | ${ }^{534}$ | s57 | 9,25\% | 11.29\% | ${ }^{56}$ |
| ${ }_{2028}^{2027}$ | \% | (3274 | (144\% | ${ }_{5}^{581}$ |  | ${ }_{\text {\% }}^{4.29 \%}$ | (1.29\% | ${ }_{86}$ |


| Incremental Custamer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Morstly | Anvel | Ratu Thems | Antar ¢ Rat | мпмalal | Ravat Thems to | ax | Tota incemema |
| ${ }_{2}$ | Adm. ${ }_{\text {ases }}$ | Adm ${ }^{\text {cheos }}$ | $\frac{\text { Totat cansume }}{11.2964}$ | $\frac{\mathrm{Adm} \text { coss }}{8: 3}$ |  | rear Cansumed | $\frac{084}{\text { cost }}$ |  |
| 2010 | \$175 | ${ }^{2} 21$ | \%120\% | ${ }_{52} 5.37$ | ${ }_{86,31}$ | 1, $120 \%$ | \$1 | ${ }_{53}^{53}$ |
| 2017 | ${ }^{31786}$ | \$21 | 12,2\% | 52.37 | 88.38 | 1,23\% | s1 | ${ }^{5}$ |
| 2012 | \$1.78 | ${ }^{821}$ | $1.298 \%$ | 52.37 | s0.44 | 1120\% | 3 | 33 |
|  | ${ }^{51.50}$ | 522 | 1129\% | 52.48 | 56.50 | 1120\% | 51 | ${ }_{5}$ |
| ${ }^{2046}$ | \$1.62 | 322 | 1129\% | 32.48 | 50, 7 | 11.30\% | \$1 | ${ }^{3}$ |
| 2015 | si.98 | siz | 1429\%\% | 52.48 | Sebs | 1120\%\% | 31 | 33 |
| ${ }^{2018}$ |  | 3 | \%28\% | 88.88 | ${ }^{86,78}$ | 11.29\% | s | *3 |
| 20.12 | St. 8 | 3 | 129\% | S2.48 | 58.73 | 11.20\% | 5 | ${ }^{33}$ |
| 2018 | 5188 | ${ }^{23}$ | 17.29\%\% | 3268 | Stat | ${ }^{112.25 \%}$ | : | \$3 |
| 2098 | 31.26 | 83 | 112.29\% | 52,60 | 8 | 11.29\% | 8 | 3 |
| 2320 | ${ }^{3123}$ | 38 | 11.29\% | 52.80 | 86.97 | 112, 128 | 31 | ${ }^{53}$ |
| 2021 | 31,95 | 23 | 11.20\% | 32,60 | 87.04 | $11.29 \%$ | * | ${ }^{3}$ |
| 2022 | 31.87 | ${ }^{224}$ | 11.29\% | 32\% | 57.11 | 51.29\% | s | 4 |
| 2023 | \$1.99 | ${ }^{224}$ | 112\%\% | \$2,7\% | 87.18 | 12.2\% | 31 | ${ }_{6}$ |
| 2824 | 32,0\% | ${ }^{224}$ | 11.288 | 3278 | 3720 | 1129\% | 81 | * |
| 22228 | 32.03 | ${ }^{324}$ | 1,20\% | 52.71 | 51,3 | 11208 | s1 | \% |
| 2028 | \$205 | 525 | 12846 | 52.82 | 5740 | 1128\% | st | s |
| ${ }_{2088}^{2027}$ | (32.09 | 325 <br> 325 | \% | ( 52.828 | ${ }_{87} 8.48$ | (11.29\% | si | * |


| Gas Cosis |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | $\bigcirc$ | 3 | \% |
|  | Theme | Feit hatm | Gas surpety |
| ${ }_{\text {Yast }}$ | 50 |  | ${ }_{568}$ |
| zato | 50 | so.aceid | 548 |
| 2943 | 50 | s50.5328 | ${ }^{4} 4$ |
| 20:2 | ${ }_{50}^{50}$ | S0.0493 | $\times 3$ |
|  | 5 | S0.4s8 | 4 |
| 2015 | 50 | Samid | 4 |
| 2016 | ${ }_{50}$ | saspe9 | 848 |
| 2017 | 50 | sc ches | 54 |
| ${ }^{2015}$ | 50 | 50.9143 | ${ }_{4}$ |
| 2016 | 5 | 50.8235 | ${ }^{46}$ |
| 2020 | 5\% | ${ }^{50.8327}$ | 54 |
| ${ }^{2021}$ | 5 | 50.9420 | 44 |
| 2022 | 50 | ${ }^{50.9514}$ | 48 |
| 2023 | 50 | 50.8610 | 34 |
| ${ }^{2024}$ | 50 | 80.770 | 54 |
| 2025 | 50 | 80,9863 | 49 |
| 2026 | 50 | 30 mbos | ${ }^{350}$ |
| ${ }_{\substack{\text { axa }}}^{3127}$ | 50 | Stiont | ${ }_{5}^{550}$ |

Indiantown Gas Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Cooking |



Appliance Type
Caoking


| Investment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | S | ${ }^{8}$ | 7 | 8 | er7s |
|  | Sumpy | Diveremman | Serices |  | Torat | cad | Fintio themm | texestmare |
| Yegr | Main | Main | Ling | water | treas | atoser | corsmeatatan | Carring cost |
| 2008 | 5100 | 3sem | \$260 | ${ }^{163}$ | ${ }^{51.023}$ | 828\% | 1016\% | \$16 |
| 2019 | 88 | 5484 | 5251 | \$157 | Spegi | 8.23\% | 1010\% | 8 |
| 2011 | sea | 5168 | 5\%43 | \$151 | spase | 8.25\% | 0.140\% | ${ }^{8}$ |
| 2012 | 591 | \$483 | ${ }^{2} 236$ | 5145 | \$924 | 925\% | 1010\% | ${ }^{\text {s }}$ |
| 2013 | 588 | sa33 | 5227 | \$138 | \$832 | R.25\% | $1016 \%$ | si |
| 2014 | ses | 5124 | \$220 | :134 | 8ө63 | 8.25\% | 10.16\% | ${ }^{8}$ |
| 2015 | se2 | \$410 | 5213 | \$128 | s834 | 9,25\% | 10.18\% | ${ }^{8}$ |
| 2016 | 878 | 5398 | 5208 | 5124 | spos | 828\% | 10.18\% | ${ }^{80}$ |
| 2097 | ${ }^{576}$ | 5383 | \$198 | 5178 | 9777 | 0.25\% | 1014\% | 5 |
| 2018 | 573 | 5370 | 5182 | 5114 | ${ }^{3748}$ | 2.235 | 10.18\% | \$ |
| 2019 | 571 | 5 | 5186 | 8110 | 8725 | ${ }^{8.235 \%}$ | 10.88\% | 57 |
| 2020 | 86 | \$36 | 5150 | 5106 | 5701 | 4.25\% | 10.46\% | 5 |
| 2021 | ${ }^{567}$ | $5 \times 35$ | *174 | 5102 | 5676 | ${ }^{2} .235$ | 10, $06 \%$ | ${ }^{\text {sf }}$ |
| 2822 | \$6s | ${ }^{3284}$ | the | 588 | 3ess | 8.25\% | 60.18\% |  |
| 2023 | ${ }^{66}$ | 3373 | 5162 | 594 | 5532 | \$2.25\% | 10.6\% | 6 |
| 2024 | 89 | 5308 | \$157 | 50 | 589 | 0.25\% | 10.70\% | ${ }^{6}$ |
| 2025 | ${ }^{59}$ | 5283 | 5158 | 387 | 5581 |  | 10.55\% | ${ }^{6}$ |
| ${ }^{2028}$ | ${ }^{55}$ | seas | 5148 | 584 | 567 | 8235\% | 10.0\%\% | 5 |
| 2087 | *s5 | 327 | 5142 | \$5 | \$552 | 325\% | t0.18\% | ss |
| 2088 | s53 | 5235 | $\pm 137$ | 379 | 5633 | 9238\% | 1018 | 5 |


| Incremental Customer Casts |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 5394 | $\varepsilon$ | $\bigcirc$ | ${ }_{8} 8.87$ | $5+8$ |
|  | menthy | Ammas | Reniat Themsto | Anmuat Rato | Ammat | Rume twam to | Anmua Reta | Fotal incrammai |
| Yas | Adm cost | Admicos | Tratcosemes | tame $\mathrm{c}_{\text {cost }}$ | Osmest | Tona consumat | Osuctict | Atm. 808 mcost |
| 2 cas | ${ }^{173}$ | 521 | 10,16\% | S2. 13 | ${ }^{86.25}$ | 1018\% |  | ${ }^{53}$ |
| 2090 | \$175 | 521 | 10.19\% | \$2.3 | ${ }^{58,34}$ | 10.14\%\% | \$1 | *3 |
| 2091 | 5176 | ${ }^{321}$ | $10.1 \mathrm{~Pa}^{2}$ | \$2.13 | st, 38 | $10.18 e^{\circ}$ | ${ }^{51}$ | 53 |
| 2012 | \$1,78 | ${ }_{5}^{521}$ | 10.18\% | s213 | s8.49 | 10.15\% | s1 | \$3 |
| 2013 | \$1.90 | 522 | 10.14\% | \$223 | 88.59 | 10.10\% | st | 53 |
| ${ }^{2014}$ | \$1.82 | 322 | 10.18\% | ${ }^{32} 23$ | ${ }^{56.57}$ | $10.189 \%$ | 51 | ${ }_{53}$ |
| 2015 | ${ }^{51,84}$ | *22 | 10.10\% | ${ }^{3223}$ | ${ }^{58.63}$ | 10.18\% | 81 | 53 |
| ${ }^{2016}$ | s1.e5 | 522 | $10.180^{\circ} /$ | 3223 | s6.70 | 10.19\% | \$1 | s3 |
| 2017 | \$1.87 | s22 | 10.18\% | 52.23 | \$n7\% | 10.se\% | \$ | 83 |
| 2016 | 51.88 | \$23 | 10.10\% |  | st. Ra |  | * | 83 |
| ${ }_{2020}^{2016}$ |  | ${ }_{\text {cke }}^{523}$ | \% | - | ¢ | \%osem | 5: | 83 |
| 2021 | 31.95 | s23 | 10.6\% | 52,34 | 37.04 | 10.18\% | 81 | ${ }_{3}$ |
| 2023 | \$1.87 | ${ }^{2} 24$ | 10.10\% | 32.44 | \$7.19 | 20.69\% | 81 | ${ }_{3}$ |
| 2203 | 81,86 | 324 | telem | 52,4 | 37.a | 50.8\% | s1 | ${ }_{3}$ |
| ${ }^{2829}$ | 82.80 | 52.4 |  | 52.46 | \$7.26 | 10.20\% | t | s3 |
| ${ }^{2045}$ | 58.03 | ${ }^{37} 4$ | \% 0 笶 | 52.45 | 5733 | $10.165^{6 / 4}$ | 81 | ${ }^{53}$ |
| -236 | ${ }^{3205}$ | *88 | 10.16\% | 82, ${ }^{524}$ | \$7.40 | ${ }^{20.048}$ | \% | \$3 |
| 2027 | 3207 | ${ }_{3} 35$ | 10.65 | 52.54 | 3748 | 10.15\% | s | 3 |
| 2026 | 820 | 425 | 16.188 | s2.54 | 37.55 | 20.18\% | s | 53 |


| Giss Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | $\stackrel{3}{2}$ | 23 |
|  | Twoms | Conmodey Gas | Gzusumy |
| yas: |  | Supry $\mathrm{Casst}^{\text {a }}$ | ${ }_{\text {coss }}^{538}$ |
| ${ }^{20096}$ | ${ }^{45}$ | ${ }^{18386}$ | ${ }^{538}$ |
| 206 | ${ }^{45}$ | 50.8844 | ${ }^{588}$ |
| 204 | ${ }^{45}$ | 50.6528 | 588 |
| 2012 | ${ }^{45}$ | 50.8813 | 539 |
| 2063 | 45 | 50.8699 | ${ }_{5}^{539}$ |
| $x^{2 \times 14}$ | 45 | S08788 | sas |
| 2015 | ${ }^{45}$ | s08874 | sta |
| ${ }^{2018}$ | ${ }^{45}$ | ${ }^{50} 88983$ | 500 |
| 2017 | ${ }^{45}$ | ${ }^{50.0953}$ | sal |
| 2018 | ${ }_{5}^{5}$ | 588143 | $\mathrm{sc}_{4}$ |
| ${ }^{2016}$ | ${ }^{45}$ | ${ }^{30.6235}$ | ${ }_{4}$ |
| 2000 | ${ }^{4}$ | 50.8327 | $\pm 2$ |
| ${ }^{202}$ | ${ }^{4}$ | 50.9429 | 512 |
| $0 \times 2$ |  | 50.0514 | ${ }^{84} 3$ |
| 2023 | ${ }^{45}$ | 50.08t0 | 83 |
| 2024 | * | starcos | $\stackrel{s}{s+4}$ |
| res | ${ }_{4}$ | 509833 | S44 |
| 200 | \% | 50800 | ${ }^{563}$ |
| 2027 | 4 |  | 5 |
| 3088 | ${ }^{4}$ | 51:000 | * |

## Indiantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Storage Tank Water Heating |



# Indiantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program Participants Test - Data 



| Propane Cost - Table 1 |  |  |  |  | Meruiral Gas Supply Cost-Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Y 8 ar | Coet Prer <br>  | Annumal Gallont | Tax Rater | Propana Cos: | Year | Cont Pw Therm | Annusal <br> Theman | Tax Rat | NGCost |
| A | 8 | c | 0 | E-Crom | A | 8 | $c$ | 0 | B-CY4+8) |
| 2009 | \$2.5480 | ${ }^{186}$ | 7.5\% | 5508 | 2009 | \$0.3360 | 170 | 10\% | 5158 |
| 2010 | \$2.5533 | ${ }^{186}$ | 7.5\% | \$800 | 2010 | 50.8444 | 170 | 10\% | 468 |
| 2911 | \$2.5805 | ${ }^{188}$ | 7.5\% | 3811 | 2011 | 30.8528 | 170 | 10\% | \$159 |
| 2012 | \$2,5676 | 180 | 7.5\% | \$612 | 2012 | \$0.8813 | 170 | 10\% | \$181 |
| 2093 | \$2.5750 | 186 | 7.3\% | \$014 | 2013 | \$0.8688 | 170 | 10\% | 418 |
| 2044 | \$2.58z3 | \% | 7.5\% | *518 | 2014 | 40.8786 | 170 | 10\% | \$184 |
| 2015 | \$2.5806 | 188 | 7.5\% | 3817 | 2015 | 50.8874 | 170 | 10\% | \$168 |
| 2046 | \$2.5968 | 186 | 7.3\% | 6518 | 2016 | 50.8083 | 170 | 10\% | \$188 |
| 2017 | \$2.004 1 | 186 | 7.5\% | 3619 | 2017 | 50.9053 | 170 | 10\% | \$160 |
| 2018 | \$2.6113 | 180 | 7.5\% | 5621 | 2016 | 50.9143 | 170 | 10\% | \$171 |
| 2088 | \$2.6486 | 185 | 7.5\% | *627 | 2019 | \$0.8235 | 170 | 40\% | $\$ 173$ |
| 2020 | \$2.625\% | 186 | 7.5\% | \$a24 | 2023 | 50.3327 | 170 | 10\% | 3174 |
| 2021 | \$2.8331 | 188 | 7.5\% | \$825 | 2021 | \$0.9420 | 170 | 10\% | \$178 |
| 2022 | \$2.4404 | 18 | 7.5\% | 3487 | 2022 | \$0.0514 | 170 | 10\% | 3178 |
| 2023 | \$2.878 | 188 | 7.5\% | \$023 | 2023 | \$0.8610 | 170 | 10\% | \$180 |
| 20294 | \$2.6549 | 186 | 75\% | taso | 2024 | \$0.9706 | 170 | 10\% | 3181 |
| 2025 | \$2.6672 | 188 | 7.5\% | :331 | 2025 | \$0.9803 | 170 | 10\% | \$183 |
| 2028 | \$2.8894 | 186 | 7.5\% | \$639 | 2026 | \$0.9909 | 170 | 10\% | \$188 |
| 2027 | \$2.6787 | 168 | 7.5\% | 5634 | 2027 | \$1.0000 | 170 | 10\% | \$187 |
| 2028 | 52.6839 | 158 | 7.5\% | 5836 | 2028 | \$1,9100 | 170 | 10\% | \$186 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  | Natural Gas Customer Charga -Tabte 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| rear |  | Annual | Tax Rate | na Cosat | Year | $\begin{aligned} & \text { Montrily } \\ & \text { Cuntormer } \\ & \text { Charge } \end{aligned}$ | $\begin{aligned} & \text { Annual } \\ & \text { Cuntinner } \\ & \text { Clunge } \end{aligned}$ | Apppiance Arnual Thems | Tobal Antun Thernt | $\begin{aligned} & \text { Prutto - } \\ & \text { Acppimnce to } \\ & \text { Totad } \end{aligned}$ | Tax Rat | $\begin{gathered} \text { Pro-Ruted } \\ \text { Cutiomer Charge } \end{gathered}$ |
| A | B | $c$ | D. | $8 \mathrm{cos} 4+\mathrm{ta}$ | A | B | $c$ | 0 | E | OE | G | crioner $4+2$ |
| 2008 | \$0.3917 | 170 | 10\% | 573 | 2009 | \$9.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | \$4 |
| 2010 | \$0.3917 | 170 | 10\% | \$73 | 2010 | \$9,00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | \$46 |
| 2011 | \$0,3917 | 170 | 10\% | 473 | 2041 | 50.00 | \$108.00 | 170 | 463 | 38.37\% | 10\% | *4 |
| 2012 | \$0.3917 | 170 | 10\% | 773 | 2012 | 58.00 | \$108.00 | 170 | 443 | 36.37\% | 10\% | \$46 |
| 2013 | \$0.3947 | 170 | 10\% | 87 | 2013 | \$9.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | \$4 |
| 2014 | 50.3917 | 170 | 10\% | 873 | 2014 | \$9.00 | \$108.00 | 770 | 43 | 38.37\% | 10\% | \$49 |
| 2015 | \$0.3917 | 170 | 10\% | 373 | 2015 | 50.00 | \$108.00 | 470 | 443 | 38.37\% | 10\% | \$4 |
| 2018 | \$0,3917 | 170 | 10\% | 573 | 2018 | 39.00 | \$108.00 | 170 | 443 | 30.37\% | 10\% | \$48 |
| 2017 | \$0.3917 | 170 | 10\% | 373 | 2017 | 50.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | 546 |
| 2018 | \$0.3917 | 170 | 10\% | 73 | 2018 | 59.00 | \$108.00 | 170 | 43 | 38,37\% | 10\% | \$46 |
| 2019 | \$0.3917 | 170 | 10\% |  | 2018 | 38.00 | \$108.00 | 470 | 443 | 38.37\% | 10\% | 548 |
| 2020 | \$0.3917 | 170 | 10\% | \$73 | 2020 | \$000 | \$105.00 | 470 | 43 | 38.37\% | 10\% | \$16 |
| 2021 | \$0.3917 | 170 | 10\% | 373 | 2024 | \$9.00 | \$108.00 | 170 | 43 | 38.37\% | 10\% | \% 8 |
| 2022 | \$0.3917 | 170 | 10\% | 373 | 2022 | \$9.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | 48 |
| 2023 | \$0.3917 | 170 | 10\% | 573 | 2023 | 39.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | 3 * |
| 2024 | \$0.3917 | 170 | 10\% | 473 | 2024 | 58.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | 546 |
| 2025 | \$0.3917 | 470 | 10\% | 373 | 2025 | 59.00 | \$108.00 | 170 | 43 | 38.37\% | 10\% | 548 |
| 2025 | \$0.3917 | 170 | 10\% | \$73 | 2028 | \$9.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | \$4 |
| 2027 | \$0.3917 | 170 | 10\% | 573 | 2027 | \$9.00 | \$108.00 | 170 | 443 | 38.37\% | 10\% | 546 |
| 2028 | \$0.3997 | 470 | 10\% | 573 | 2028 | \$000 | \$108.00 | 170 | 43 | 38.37\% | 10\% | 3*\% |

## Indiantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Cost Effective Results

| Appliance Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tankless Water Heating |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Year | Year Number | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
|  |  | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance 08M | TOTAL benefits | NG Equipment Cos | Propane Equipment 8 installiation Cost | NG installation Cost | NG <br> Conversion Cost | NG Appliance O \& $M$ | NG Supply Cost | NG Enargy Charge | NG Customer Charge | total. costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thrue | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$448 | \$450 | \$60 | \$988 | \$0 | \$0 | \$0 | \$100 | \$60 | \$138 | \$65 | \$42 | \$405 |
| 2010 | 2 | \$449 | 0 | \$61 | \$610 | 0 | \$0 | 0 |  | \$61 | \$139 | \$65 | \$42 | \$307 |
| 2011 | 3 | \$451 | 0 | \$61 | \$612 | 0 | \$0 | 0 |  | \$61 | \$141 | \$65 | \$42 | \$309 |
| 2012 | 4 | \$452 | 0 | \$62 | \$614 | 0 | \$0 | 0 |  | \$62 | \$142 | \$65 | \$42 | $\$ 311$ |
| 2013 | 5 | \$453 | 0 | \$62 | $\$ 518$ | 0 | \$0 | 0 |  | \$62 | \$144 | \$65 | \$42 | \$313 |
| 2014 | 6 | \$455 | 0 | \$63 | \$618 | 0 | so | 0 |  | \$63 | \$145 | \$65 | \$42 | \$315 |
| 2015 | 7 | \$456 | 0 | \$64 | \$820 | 0 | \$0 | 0 |  | \$64 | \$146 | \$65 | \$42 | \$317 |
| 2016 | 8 | \$457 | 0 | \$64 | \$621 | 0 | \$0 | 0 |  | \$64 | \$148 | \$65 | \$42 | \$319 |
| 2017 | 9 | \$458 | 0 | \$65 | \$823 | 0 | \$0 | 0 |  | \$65 | \$149 | \$65 | \$42 | \$321 |
| 2018 | 10 | \$460 | 0 | \$66 | \$525 | 0 | \$0 | 0 |  | \$66 | \$151 | \$65 | \$42 | \$323 |
| 2018 | 11 | \$461 | 0 | \$66 | \$627 | 0 | \$0 | 0 |  | \$66 | \$152 | \$65 | \$42 | \$325 |
| 2020 | 12 | \$462 | 0 | \$67 | \$529 | 0 | \$0 | 0 |  | \$67 | \$154 | \$65 | \$42 | \$328 |
| 2021 | 13 | \$463 | 0 | \$68 | \$631 | 0 | \$0 | 0 |  | \$68 | \$155 | \$65 | \$42 | \$330 |
| 2022 | 14 | \$465 | 0 | \$68 | \$533 | 0 | $\$ 0$ | 0 |  | \$68 | \$157 | \$65 | \$42 | \$332 |
| 2023 | 15 | \$466 | 0 | \$69 | \$635 | 0 | \$0 | 0 |  | \$69 | \$159 | \$65 | \$42 | \$334 |
| 2024 | 16 | \$467 | 0 | \$70 | \$537 | 0 | \$0 | 0 |  | \$70 | \$160 | \$65 | \$42 | \$337 |
| 2025 | 17 | \$469 | 0 | \$70 | \$539 | 0 | \$0 | 0 |  | \$70 | \$162 | \$65 | \$42 | \$339 |
| 2026 | 18 | \$470 | 0 | \$71 | \$641 | 0 | $\$ 0$ | 0 |  | \$71 | \$163 | \$65 | \$42 | \$341 |
| 2027 | 19 | \$471 | 0 | \$72 | \$643 | 0 | $\$ 0$ | 0 |  | \$72 | \$165 | \$65 | \$42 | \$344 |
| 2028 | 20 | \$472 | 450 | \$72 | \$996 | 1,219 | (\$1,746) | 527 |  | \$72 | \$167 | \$65 | \$42 | \$346 |
|  |  |  |  | Pressent Vahue of Bunefiss | \$5,834 |  |  |  |  |  |  |  | Prement Value of Costs | \$3,228 |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Benefit Cost } \\ \text { Ratio } \end{gathered}$ |  | 1.75 |



## Indiantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |


|  |  | Benoftts |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided <br> Propane Appliance O\&M | TOTAL BENEFITS | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$632 | \$350 | \$270 | \$1,152 | \$0 | 0 | \$0 | \$100 | \$270 | \$184 | \$77 | \$48 | \$658 |
| 2010 | 2 | \$533 | 0 | \$273 | \$806 | 0 | 0 | 0 |  | \$273 | \$165 | \$77 | \$48 | \$562 |
| 2011 | 3 | \$535 | 0 | \$275 | \$810 | 0 | 0 | 0 |  | \$275 | \$167 | \$77 | \$48 | \$567 |
| 2012 | 4 | \$536 | 0 | \$278 | \$815 | 0 | 0 | 0 |  | \$278 | $\$ 169$ | \$77 | \$48 | \$674 |
| 2013 | 5 | \$538 | 0 | \$281 | \$819 | 0 | 0 | 0 |  | \$281 | \$170 | \$77 | \$48 | \$576 |
| 2014 | 6 | \$539 | 0 | \$284 | \$823 | 0 | 0 | 0 |  | \$284 | \$172 | \$77 | \$48 | \$880 |
| 2015 | 7 | \$541 | 0 | \$287 | \$826 | 0 | 0 | 0 |  | \$287 | \$174 | \$77 | \$48 | \$586 |
| 2016 | 8 | \$542 | 0 | \$289 | \$832 | 0 | 0 | 0 |  | \$289 | \$175 | \$77 | \$48 | \$589 |
| 2017 | 9 | \$544 | 0 | \$292 | \$836 | 0 | 0 | 0 |  | \$292 | \$177 | \$77 | \$48 | \$694 |
| 2018 | 10 | \$545 | 0 | \$295 | \$841 | 0 | 0 | 0 |  | \$295 | \$179 | \$77 | \$48 | 5599 |
| 2019 | 11 | \$547 | 0 | \$298 | \$845 | 0 | 0 | 0 |  | \$298 | \$181 | \$77 | \$48 | \$803 |
| 2020 | 12 | \$548 | 0 | \$301 | \$850 | 0 | 0 | 0 |  | \$301 | \$183 | \$77 | \$48 | \$608 |
| 2021 | 13 | \$550 | 0 | \$304 | \$854 | 0 | 0 | 0 |  | \$304 | \$184 | \$77 | \$48 | \$813 |
| 2022 | 14 | \$552 | 0 | \$307 | \$859 | 0 | 0 | 0 |  | \$307 | \$186 | \$77 | \$48 | 5818 |
| 2023 | 15 | \$553 | 0 | \$310 | \$863 | 0 | 0 | 0 |  | \$310 | $\$ 188$ | \$77 | \$48 | \$623 |
| 2024 | 16 | \$555 | 0 | \$313 | \$868 | 0 | 0 | 0 |  | \$313 | \$190 | \$77 | \$48 | \$628 |
| 2025 | 17 | \$556 | 0 | \$317 | \$873 | 0 | 0 | 0 |  | \$317 | \$192 | \$77 | \$48 | \$633 |
| 2026 | 18 | 3558 | 350 | \$320 | \$1,227 | 2,882 | $(4,657)$ | 1,775 |  | \$320 | \$194 | \$77 | \$48 | \$638 |
| 2027 | 49 | \$559 | 0 | \$323 | \$882 | 0 | 0 | 0 |  | \$323 | \$196 | \$77 | \$48 | \$843 |
| 2028 | 20 | \$561 | 0 | \$326 | \$887 | 0 | 0 | 0 |  | \$326 | \$198 | \$77 | \$48 | 5648 |
|  |  |  |  | Present Value of Benefts | \$8,585 |  |  |  |  |  |  |  | rasemt Valua Costs | \$5,888 |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Benefit/Cost } \\ \text { Ratio } \\ \hline \end{gathered}$ |  | 1.46 |

# Indiantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residentlal Propane Distribution System Conversion Program 

Participants Test - Data


| Propare Cost - Tatie 1 |  |  |  |  | Nuturni Gax Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cont Per Gation | Annuma Guliono | Tax Reste | $\begin{gathered} \text { Propane } \\ \text { Coute } \end{gathered}$ | Yaur | Cont Per Therm | Annusal <br> Themmas | Tex Rate | ng cost |
| A | - | $c$ | 0 | $\mathrm{g}^{+} C^{+}(1+0)$ | A | 8 | $c$ | 0 | $\mathrm{B}^{+} \cdot{ }^{+}(1+0)$ |
| 2009 | \$2.5450 | 194 | 7.5\% | 8632 | 2009 | \$0.8380 | 178 | 10\% | \$184 |
| 2010 | \$2.5533 | 124 | 7.5\% | 3633 | 2010 | \$0.8444 | 178 | 10\% | **83 |
| 2011 | \$2.5805 | 194 | 7.5\% | Saxa | 2011 | \$0.8528 | 178 | 10\% | 5187 |
| 2012 | \$2.5678 | 14 | 7.5\% | 453 | 2012 | 50.8813 | 178 | 10\% | *16 |
| 2013 | \$2.5750 | 194 | 7.5\% | $8 \pm 38$ | 2013 | 50.8898 | 178 | 10\% | 5170 |
| 2014 | \$2.5823 | 194 | 7.5\% | 4638 | 2014 | \$0.8786 | 178 | 10\% | \$172 |
| 2015 | \$2.5808 | 194 | 7.5\% | 141 | 2015 | \$0.8874 | 178 | 10\% | \$194 |
| 2016 | \$2.5988 | 99 | 7.5\% | \$042 | 2016 | 50.8883 | 178 | 10\% | \$198 |
| 2017 | \$2.0041 | 184 | 7.5\% | 464 | 2017 | \$0.9053 | 178 | 10\% | 817 |
| 2018 | \$2.8143 | 194 | 7.3\% | \$849 | 2018 | \$0.914 | 178 | 10\% | \$17 |
| 2018 | \$26489 | 194 | 7.5\% | \$47 | 2019 | 50.9235 | 178 | 10\% | \$181 |
| 2020 | *2.8259 | 194 | 7.5\% | 1048 | 2020 | 50.9327 | 178 | 10\% | \$183 |
| 2021 | \$2.6331 | 194 | 7.5\% | 6650 | 2021 | 50.9420 | 178 | 10\% | 4184 |
| 2022 | \$2.4404 | 194 | 7.5\% | \$082 | 2022 | \$0.9514 | 178 | 10\% | 5188 |
| 2023 | \$2.6476 | 194 | 7.5\% | 4053 | 2023 | 50.9510 | 178 | 10\% | \$188 |
| 2024 | \$2.6540 |  | 7.5\% | \%ms | 2024 | \$0.9706 | 178 | 10\% | \$180 |
| 2025 | \$2.662 | 194 | 7.5\% | \%6se | 2025 | \$0.9803 | 178 | 10\% | \$192 |
| 2026 | \$2.8694 | 194 | 7.5\% | \$688 | 2028 | \$0.080 | 178 | 10\% | \$194 |
| 2027 | \$2.6767 | 194 | 7.5\% | sess | 2027 | \$1.0000 | 178 | 10\% | \$18 |
| 2028 | \$2.8839 | 194 | 75\% | \$两1 | 2028 | \$1.0100 | 178 | 10\% | \$188 |


| Natural Gas Enegy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | $\underset{\text { Rentern }}{ }$ | Annual Therrms | Tax Pate | ngcost |
| A | 1 | c | 0 | $\mathrm{B}^{+} \mathrm{C}^{+}(1+\mathrm{D})$ |
| 2009 | \$0.3817 | 176 | 10\% | 87 |
| 2040 | \$0.3017 | 178 | 10\% | s7 |
| 2014 | 50.3917 | 178 | 10\% | \$7 |
| 2012 | 50,3917 | 178 | 10\% | \%7 |
| 2013 | S0.3917 | 178 | 10\% | *7 |
| 2014 | 50.3917 | 178 | 10\% | s7 |
| 2015 | \$0.3817 | 178 | 10\% | 87 |
| 2015 | 50.3917 | 178 | 10\% | *7 |
| 2017 | 50.3617 | 178 | 10\% | *7 |
| 2018 | \$0.3817 | 178 | 10\% | 37 |
| 2098 | 50.3917 | 178 | 10\% | *7 |
| 2020 | \$0.3917 | 178 | 10\% | *7 |
| 2021 | 50.3017 | 178 | 10\% | * |
| 2022 | S0. 3917 | 178 | 10\% | $3 \pi$ |
| 2023 | \$0.3917 | 178 | 10\% | * |
| 2024 | 50.3697 | 178 | 10\% | 37 |
| 2025 | \$0.3917 | 178 | 10\% | * 7 |
| 2025 | \$0.3917 | 178 | 10\% | s7 |
| 2027 | \$0.3s17 | 178 | 10\% | \$7 |
| 2028 | 50.3917 | 178 | 10\% | 37 |


| Natural Gas Customer Charge. Tabie 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yamr | Montitily Customex change | $\begin{gathered} \text { Annual } \\ \text { Custommor } \\ \text { Oharge } \end{gathered}$ | Applances Anuted therms | $\begin{aligned} & \text { Totarit } \\ & \text { Anuat } \\ & \text { Them } \end{aligned}$ | $\begin{aligned} & \text { Rentlo: } \\ & \text { Appilance to } \\ & \text { Totan } \end{aligned}$ | Tak Rate | Prompatiad Chatye |
| A | S | c | 0 | E | DE | $g$ | croramiz |
| 2009 | 39.00 | \$100.00 | 178 | 43 | 40.18\% | 10\% | 3 |
| 2010 | \$8.00 | \$108.50 | 178 | 43 | 40.18\% | 10\% | 34 |
| 2011 | \$3.00 | \$108.00 | 178 | 44 | 40.18\% | 10\% | 4* |
| 2012 | 59.00 | \$108.00 | 179 | 43 | 40.18\% | 50\% | 949 |
| 2013 | 59.00 | \$108.80 | 778 | 443 | 40.18\% | 10\% | \$4 |
| 2014 | 59.00 | \$108.00 | 178 | 443 | 40.18\% | 10\% | H* |
| 2015 | \$0.00 | \$108.00 | 178 | 443 | 40.18\% | 10\% | 345 |
| 2018 | 58.00 | \$108.00 | 178 | 43 | 40.18\% | 10\% | H0 |
| 2017 | \$0.00 | \$100.00 | 178 | 443 | 40.10\% | 10\% | 34 |
| 2018 | \$9.00 | \$100.00 | 178 | 443 | 40.19\% | 10\% | 448 |
| 2018 | 38.00 | \$108.00 | 178 | 443 | 40.18\% | 10\% | 4 |
| 2020 | \$9.00 | \$108.00 | 478 | 44 | 40.19\% | 10\% | 34 |
| 2021 | \$8.00 | \$108.50 | 178 | 43 | 40.86\% | 10\% | 84 |
| 2022 | \$9.00 | \$108.50 | 178 | 43 | 40.18\% | 10\% | 48 |
| 2023 | 58.00 | \$08.00 | 178 | 43 | 40.18\% | 10\% | 44 |
| 2024 | 53.00 | \$108.00 | 178 | 443 | 40.10\% | 10\% | su4 |
| 2025 | 59.00 | \$100.00 | 178 | 43 | 40.18\% | 10\% | 44 |
| 2020 | \$8.00 | \$108.00 | 178 | 443 | 40.18\% | 10\% | 44 |
| 2027 | 50.00 | \$108.00 | 178 | 43 | 40.18\% | 10\% | 48 |
| 2028 | \$800 | \$108.00 | 178 | 43 | 40.18\% | 10\% | 48 |

Indiantown Gas Company - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Clothes Drying |



# Indlantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 



| Propane Cost-Table 1 |  |  |  |  | Natural Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cast Per Gantion | Annual Gellont | Tax Ratu | Proparee Comet | Yu* | Cont Per Therm | Annual Thermix | Tax Rate | NQ Cost |
| A | 8 | $c$ | 0 | BCO | A | $B$ | c | D | Brcrobl |
| 2009 | \$2.9460 | 55 | 7.5\% | 314 | 2009 | \$0.8360 | 50 | 10\% | \$4 |
| 2010 | \$2.5533 | 55 | 7.5\% | \%150 | 2010 | \$0.8444 | 50 | 10\% | * |
| 2011 | \$2,5605 | 55 | 7.5\% | \$150 | 2011 | \$0.8528 | 50 | 10\% | * 4 |
| 2012 | \$2.5878 | 55 | 7.5\% | \$131 | 2012 | \$0.0813 | 50 | 10\% | 47 |
| 2013 | \$2.5750 | 55 | 7.5\% | 3161 | 2013 | \$0.8899 | 50 | 10\% | *8 |
| 2014 | \$2.5823 | 55 | 7.5\% | \$162 | 2014 | \$0.8786 | 50 | 10\% | ** |
| 2015 | \$2.5008 | 35 | 7.5\% | 3162 | 2015 | S0. 8674 | \$0 | 10\% | 4 |
| 2018 | \$2.5968 | 55 | 7.5\% | 3152 | 2015 | \$0.8963 | 50 | 10\% | 4 |
| 2017 | \$2.6041 | 56 | 7.5\% | \$183 | 2017 | \$0.8053 | 50 | 10\% | \%sis |
| 2018 | \$2.6113 | 55 | 7.5\% | 4163 | 2018 | 50.8143 | 50 | 10\% | \$60 |
| 2019 | \$2.8186 | 55 | 7.5\% | \$154 | 2019 | 50.9235 | 50 | 10\% | 851 |
| 2020 | 52.8250 | 55 | 7.5\% | \$136 | 2080 | \$0.9327 | 50 | 10\% | 81 |
| 2021 | \$2.8331 | 55 | 7.5\% | 134 | 2021 | \$0.9420 | 50 | 10\% |  |
| 2022 | 52.8404 | 55 | 7.5\% | \$145 | 2022 | \$0.9514 | 50 | 10\% | 562 |
| 2023 | \$2.6476 | 55 | 7.5\% | 3155 | 2023 | \$0.0610 | 50 | 10\% | \$83 |
| 2024 | \$2.8549 | 55 | 7.5\% | \$10\% | 2024 | 30.9708 | 50 | 10\% | 563 |
| 2025 | 52.6622 | 55 | 7.5\% | 8106 | 2025 | *0.8803 | 50 | 10\% | \$54 |
| 2086 | \$2.8694 | 55 | 7.5\% | 1157 | 2026 | 50.9001 | 50 | 10\% | \%64 |
| 2027 | \$2.6767 | 55 | 7.5\% | 816 | 2027 | \$1.0000 | 50 | 10\% | S* |
| 2028 | \$2.8839 | 55 | 7.5\% | \$157 | 2028 | \$1.0100 | 50 | 10\% | \$56 |


| Natural Oas Energy Charge - Tablo 3 |  |  |  |  | Natural Gas Customer Chargo - Tablo 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Y mar | $\xrightarrow[\substack{\text { Rentan Por } \\ \text { Thems }}]{ }$ | Arnawal Therms | Tax Relt | nocost | Year | Monthy Chango | $\begin{gathered} \text { Annual } \\ \text { Customer } \\ \text { Charge } \end{gathered}$ | Applimence Anual nerm: | Total Amnuer Themes | $\begin{aligned} & \text { Rowlo : } \\ & \text { Aqpilmars to } \\ & \text { Totwin } \end{aligned}$ | Tmax Ram | Pro-Pated Cutboniser Chury |
| A | 8 | c | 0 | $8^{*} \mathrm{C}+(1+\mathrm{D})$ | A | B | $c$ | D | $E$ | DE | G | CHIEP) $(1+2$ |
| 2009 | \$0,3917 | so | 10\% | \$22 | 2009 | 89.00 | \$108.00 | 50 | 43 | 11.29\% | 10\% | \$13 |
| 2010 | \$0.3817 | 50 | 10\% | 822 | 2010 | 59.00 | \$108.00 | 50 | 43 | 11.89\% | 10\% | 513 |
| 2011 | \$0.3917 | 50 | 10\% | \%22 | 2011 | \$3.00 | \$100.00 | 50 | 43 | 11.29\% | 10\% | 843 |
| 2012 | 30.3817 | 50 | 10\% | \$22 | 2012 | \$0.00 | \$108.00 | 50 | 44 | 11.29\% | 10\% | 53 |
| 2013 | \$0.3617 | 50 | 10\% | 322 | 2013 | 58.00 | \$108.00 | 50 | 43 | 11.29\% | 10\% | 513 |
| $20: 4$ | \$0.3917 | 50 | 10\% | 322 | 2014 | 50.00 | \$100.00 | 50 | 43 | 11.29\% | 10\% | \$13 |
| 2015 | 30.3817 | 50 | 10\% | 322 | 2015 | 30.00 | 5100.00 | 50 | 43 | 11,290\% | 10\% | 513 |
| 2016 | \$0.3817 | 50 | 10\% | \$22 | 2016 | \$9.00 | \$109.00 | 50 | 43 | 11.28\% | 10\% | \$13 |
| 2017 | \$0.3917 | 50 | 10\% | \$22 | 2017 | \$9.00 | \$108.00 | 50 | 43 | 11.29\% | 10\% | \$13 |
| 2018 | \$0.3617 | 50 | 10\% | \$22 | 2018 | 50.00 | \$108.00 | 50 | 43 | $11.29 \%$ | 10\% | 513 |
| 2019 | \$0.3017 | 50 | 10\% | \$22 | 2019 | 58.00 | \$108.00 | 50 | 43 | 11.29\% | 10\% | 313 |
| 2020 | \$0.3817 | 50 | 10\% | \$22 | 2020 | \$5.00 | \$108.00 | 59 | 43 | 11.29\% | 10\% | 513 |
| 2021 | 50.3017 | 50 | 10\% | \$22 | 2021 | 58.00 | \$108.00 | 50 | 43 | 11.29\% | 10\% | \$12 |
| 2022 | 50.3817 | 50 | 10\% | 322 | 2022 | 39.00 | \$100.00 | 50 | 43 | 11.25\% | 10\% | 43 |
| 2023 | \$0.3817 | 50 | 10\% | \%2 | 2023 | \$0.00 | \$108.00 | 50 | 43 | 11.20\% | 10\% | \$13 |
| 2024 | 50.3917 | 50 | 10\% | \$22 | 2024 | 59.00 | \$108.00 | 50 | 443 | 11.20\% | 10\% | 813 |
| 2025 | 30.3817 | 50 | 10\% | \$22 | 2025 | \$900 | \$100.00 | 50 | 443 | 11.28\% | 10\% | \$13 |
| 2028 | \$0.3917 | 50 | 10\% | \$22 | 2028 | 59.00 | \$108.00 | 50 | 43 | 11.29\% | 10\% | 843 |
| 2027 | s0.391? | 50 | 10\% | 522 | 2027 | 50.00 | \$108.00 | 50 | 43 | 11.20\% | 10\% | 813 |
| 2028 | \$0.3917 | 50 | 10\% | \$22 | 2028 | 59.00 | \$100.00 | 50 | 43 | 11.29\% | 10\% | \$4 |

# Indiantown Gas Company - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Cost Effective Results 

| Appliance Type |
| :---: |
| Cooking |


|  |  | Beneflits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propene Cost | NG Rebate | Avoided Propane Appliance O8M | total. benefits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG installation Cost | NG Conversion Cost | $\begin{gathered} \text { NG Appliance O } \\ \& M \end{gathered}$ | NG Supply Cost | NG Energy Charge | NG Customer Charge | total. costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thrue 6 | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$134 | \$100 | \$60 | \$294 | \$0 | \$0 | \$0 | \$100 | \$60 | \$41 | \$19 | \$12 | \$233 |
| 2010 | 2 | \$135 | 0 | \$61 | \$195 | 0 | \$0 | 0 |  | \$61 | \$42 | \$19 | \$12 | \$134 |
| 2011 | 3 | \$135 | 0 | \$61 | \$106 | 0 | \$0 | 0 |  | \$61 | \$42 | \$19 | \$12 | \$135 |
| 2012 | 4 | \$136 | 0 | \$62 | \$197 | 0 | \$0 | 0 |  | \$62 | \$43 | \$19 | \$12 | \$136 |
| 2013 | 5 | \$136 | 0 | \$62 | \$198 | 0 | \$0 | 0 |  | \$62 | \$43 | \$19 | \$12 | \$137 |
| 2014 | 6 | \$136 | 0 | \$63 | \$199 | 0 | \$0 | 0 |  | \$63 | \$43 | \$18 | \$12 | \$138 |
| 2015 | 7 | \$137 | 0 | \$64 | \$200 | 0 | \$0 | 0 |  | \$64 | \$44 | \$19 | \$12 | \$139 |
| 2016 | 8 | \$137 | 0 | \$64 | \$201 | 0 | \$0 | 0 |  | \$64 | \$44 | \$19 | \$12 | \$140 |
| 2017 | 9 | \$138 | 0 | \$65 | \$202 | 0 | \$0 | 0 |  | \$65 | \$45 | \$19 | \$12 | \$141 |
| 2018 | 10 | \$138 | 0 | \$66 | \$204 | 0 | \$0 | 0 |  | \$66 | \$45 | \$19 | \$12 | \$142 |
| 2019 | 11 | \$138 | 0 | \$66 | \$205 | 0 | \$0 | 0 |  | \$68 | \$46 | \$19 | \$12 | \$143 |
| 2020 | 12 | \$139 | 0 | \$67 | \$206 | 0 | \$0 | 0 |  | \$67 | \$46 | \$19 | \$12 | \$146 |
| 2021 | 13 | \$139 | 0 | \$68 | \$207 | 0 | \$0 | 0 |  | \$66 | \$47 | \$19 | \$12 | \$148 |
| 2022 | 14 | \$139 | 0 | \$68 | \$208 | 0 | \$0 | 0 |  | \$68 | \$47 | \$19 | \$12 | \$147 |
| 2023 | 15 | \$140 | 100 | \$69 | \$309 | 637 | (\$805) | 167 |  | \$69 | \$48 | \$19 | \$12 | \$148 |
| 2024 | 16 | \$140 | 0 | \$70 | \$210 | 0 | \$0 | 0 |  | \$70 | \$48 | \$19 | \$12 | \$149 |
| 2025 | 17 | \$141 | 0 | \$70 | \$211 | 0 | \$0 | 0 |  | \$70 | \$49 | \$19 | \$12 | \$150 |
| 2026 | 18 | \$141 | 0 | \$71 | \$212 | 0 | \$0 | 0 |  | \$71 | \$49 | \$19 | \$12 | \$152 |
| 2027 | 19 | \$141 | 0 | \$72 | \$213 | 0 | \$0 | 0 |  | \$72 | \$49 | \$19 | \$12 | \$153 |
| 2028 | 20 | \$142 | 0 | \$72 | \$214 | 0 | \$0 | 0 |  | 572 | \$50 | \$19 | \$12 | \$154 |
|  |  |  | Present Value of Benefist |  | \$2,103 |  |  |  |  |  |  | Present Vatue of Couts |  | \$1,471 |
|  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Benefif/Cost } \\ \text { Ratio } \end{gathered}$ |  | 1.43 |

# Indiantown Gas Company - AGDF Energy Conservation Filing 2009 

Residential Propane Distribution System Conversion Program
Participants Test - Data


| Propane Cost-Table 1 |  |  |  |  | Noural Gas Supply Cost-Table 2 |  |  |  |  | Natural Oas Energy Charge - Tatio 3 |  |  |  |  | Natural Cas Customer Charge-Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { Cous Perr } \\ \text { Gallon } \end{gathered}$ | Annual Gallon | Tax Rata | Propare Cost | Year | Cont Pos Them | Anmual | Tax Ratim | Ne Cont | Yaer | Rato Pos Them | Ansuas | Tax Rate | ng Cost | Yoar | $\begin{aligned} & \text { Montrity } \\ & \text { Cursomer } \\ & \text { Charge } \end{aligned}$ | $\begin{aligned} & \text { Annuat } \\ & \text { Cuatomer } \\ & \text { Charge } \end{aligned}$ | Appliancea Therm | Total Annusel Therma | $\begin{gathered} \text { Retio- - } \\ \substack{\text { Applinnce to } \\ \text { Total }} \end{gathered}$ | Tax Rade | ProRated Cutsomen cherge |
| A | B | c | - | $\mathrm{B}^{\circ} \mathrm{C}(1+\mathrm{D})$ | A | B | c | 0 | $B^{*} C^{*}(1+$ d $)$ | A | B | c | D | Brcta | A | B | c | - | E | DE | G | criper ( $1+2$ ) |
| 2008 | \$2.5460 | 40 | 7.5\% | \$134 | 2009 | 50.8300 | 45 | 10\% | 41 | 2009 | 50.3817 | 45 | 10\% | * | 2009 | 59.00 | \$108.00 | 45 | 443 | 10.16\% | 10\% | \$12 |
| 2010 | 52.5533 | 49 | 7.5\% | \$138 | 2010 | \$0.3444 | 45 | 10\% | 49 | 2010 | \$0.3917 | 45 | 10\% | 819 | 2010 | \$5.00 | \$100.00 | 45 | 44 | 10.16\% | 10\% | 112 |
| 2011 | \$2.5805 | 49 | 7.5\% | \$138 | 2011 | \$0.8528 | 45 | 10\% | 42 | 2011 | \$0.3817 | 45 | 10\% | 819 | 2011 | \$5.00 | \$108.00 | 45 | 43 | 10.88\% | 10\% | 12 |
| 2012 | 32.5676 | 49 | 7.5\% | \$136 | $20: 2$ | 30.8813 | 45 | 10\% | 3 | 2012 | 50.3917 | 45 | 10\% | 819 | 2012 | 59.00 | \$108.00 | 45 | 43 | 10.16\% | 10\% | \$12 |
| 2013 | \$2.5750 | 45 | 7.5\% | *136 | 2013 | 50.8699 | 45 | 10\% | 34 | 2013 | 50,3917 | 45 | 10\% | 819 | 2013 | \$9.00 | \$108.00 | 45 | 443 | 10.16\% | 10\% | 812 |
| 2014 | \$2.5823 | 48 | 7.5\% | \$138 | 2014 | 30.9788 | 45 | 10\% | 4 | 2014 | \$0.3917 | 45 | 10\% | 819 | 2014 | \$9.00 | \$108.00 | 45 | 443 | 10.46\% | 10\% | 812 |
| 2015 | \$2.5886 | 49 | 7.5\% | *137 | 2015 | 50.8874 | 45 | 10\% | 54 | 2015 | \$0.3917 | 45 | 10\% | \$19 | 2015 | *000 | \$108.00 | 45 | 43 | 10.18\% | 10\% | 112 |
| 2016 | \$2.5068 | 49 | 75\% | \$137 | 2016 | 50.8983 | 43 | 10\% | 54 | 2016 | 50.3917 | 45 | 10\% | 419 | 2016 | 59.00 | \$108.00 | 45 | 443 | 10.16\% | 10\% | 812 |
| 2047 | \$2.6041 | 49 | 7.5\% | \$138 | 2017 | 50.9053 | 45 | 10\% | 45 | 2017 | \$0,3917 | 45 | 10\% | 819 | 2017 | 59.00 | \$108.00 | 45 | 43 | 10.18\% | 10\% | 312 |
| 2018 | \$2.8113 | 49 | 7.5\% | \$128 | 2016 | 50.9143 | 45 | 10\% | 45 | 2018 | \$0.3947 | 45 | 10\% | 819 | 2018 | \$9.00 | \$108.00 | 45 | 43 | 10.16\% | 10\% | \$12 |
| 2019 | \$2.6186 | 49 | 7.5\% | \$134 | 2019 | 50.9235 | 45 | 10\% | \$48 | 2019 | \$0.3817 | 45 | 10\% | \$19 | 2019 | \$9.00 | \$108.00 | 45 | 443 | 10.16\% | 10\% | \$12 |
| 2020 | +2.8259 | 49 | 7.5\% | *139 | 2020 | 50.9327 | 45 | 10\% | 846 | 2020 | 20.3917 | 45 | 10\% | 819 | 2020 | \$9.00 | \$108.00 | 45 | 43 | 10.16\% | 10\% | 812 |
| 2021 | \$2.8331 | 48 | 7.5\% | *139 | 2021 | 00.9420 | 45 | 10\% | 47 | 2024 | \$0.3917 | 45 | 10\% | \$19 | ${ }^{2021}$ | \$900 | \$108.00 | 45 | 43 | 10.18\% | 10\% | \$12 |
| 2022 | 52.5404 | 49 | 7.5\% | \$138 | 2022 | 30.0314 | 45 | 10\% | 4 | 2022 | \$0,3817 | 45 | 10\% | \$19 | 2022 | 59.00 | \$108.00 | 45 | 43 | 19.18\% | 10\% | 312 |
| 2023 | 32.6476 | 49 | 7.5\% | \$140 | 2023 | 50.9610 | 45 | 10\% | 58 | 2023 | \$0.3917 | 45 | 10\% | 819 | 2023 | 59.00 | \$108.00 | 45 | 443 | 10.16\% | 10\% | \$12 |
| 2024 | \$2.5549 | 49 | 7.5\% | 8140 | 2084 | \$0.9706 | 45 | 10\% | * 4 | 2024 | \$0.3917 | 45 | 10\% | 819 | 2024 | \$9.00 | \$108.00 | 45 | 43 | 10.16\% | 10\% | \$12 |
| 2025 | \$20622 | 49 | 7.5\% | \$141 | 2025 | 50.9803 | 45 | 10\% | 4 | 2025 | \$0.3917 | 45 | 10\% | \$19 | 2025 | \$9.00 | \$108.00 | 45 | 43 | 10.16\% | 10\% | \$12 |
| 208 | \$2.6804 | 49 | 7.5\% | 5141 | 2026 | \$0.9801 | 45 | 10\% | 49 | 2026 | \$0.3947 | 45 | 10\% | 819 | 2026 | \$9.00 | \$108.00 | 45 | 43 | 10.18\% | 10\% | $\$ 12$ |
| 2027 | \$2.8767 | 48 | 7.5\% | \$144 | 2027 | \$1.0000 | 45 | 10\% | 48 | 2027 | \$0.3917 | 45 | 10\% | \$19 | 2027 | \$8.00 | \$109.08 | 45 | 43 | 10.18\% | 10\% | \$12 |
| 2028 | \$2.8839 | 49 | 7.5\% | \$142 | 2028 | 51.0100 | 45 | 10\% | \$50. | 2028 | \$0.3917 | 45 | 10\% | 899 | 2028 | \$9.00 | \$108.00 | 45 | 443 | 10.16\% | 10\% | 112 |

M'O"d \% 01 ©

## Attachment 2.5

## Associated Gas Distributors of Florida <br> Energy Conservation Program Petition Residential Propane Distribution System Conversion Program March, 2009

## Peoples Gas System Rate Impact Measurement Test Participants Test

Summary of RIM Test and Participants Test Results

|  | Proposed <br> Allowance |  |  |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Participants Test |  | RIM Test |  |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Storage Tank Water Heating |



# Peoples Gas System－AGDF Energy Conservation Filing 2009 

## Residential Propane Distribution Systern Conversion Program

 RIM Test－Calculated DataAppliance Type
Storage Tank Water Heating


| Invesiment Carying Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3. | 4 | 5 | － | \％ | ${ }^{3}$ | ers |
|  | Supply | Disemempmom | Servee |  | Toue | Cost | Ratio of Thems | invosmmal |
| Yarar | Main | Man | Hine | mear | tmustrios | ${ }^{\text {of Dasa }}$ | Consmmat To Totat | minc cost |
| 2009 | stoc | s500 | \＄800 | ${ }^{1683}$ | ${ }^{51.363}$ | R．7．2\％ | ${ }^{38.387 \%}$ | ＊6 |
| 2010 | ${ }^{897}$ | Hase | ${ }^{\text {ssea }}$ | 5152 | \＄1．304 | 8．72\％ | 38．37\％ | ${ }^{54}$ |
| 2015 | \＄24 | 4872 | ${ }^{55540}$ | \＄142 | ＊1，248 | $18.72 \%$ | ${ }^{38} 373 \%$ | saz |
| 2012 | \＄99 | 5488 | 5512 | \＄133 | \＄1．14 | ${ }_{8.72 \%}$ | ${ }^{38.384 \%}$ | 540 |
| 2013 | ${ }^{366}$ | Sus | 5488 | 5174 | \＄1，443 | 8．72\％ | 38．37\％ | ${ }_{38} 8$ |
| 2814 | ${ }_{565}$ | 54382 | 3881 | 5116 | \＄1．0494 | 8．72\％ | 33，37\％ | 33？ |
| 2045 | 583 | 2418 | 3437 | 3stab | 31.047 | 8，7\％\％ | 33，37\％ | 35 |
| 2098 | ${ }^{881}$ | mef | 84，${ }^{18}$ | St109 | 31，004 | 8．72\％ | ${ }_{33}^{3838 \%}$ | ${ }_{53}$ |
| 2017 | 890 | 5385 | 8384 | \＄94 | 5182 | 18．72\％ | 38，37\％ | 332 |
| 2018 | 373 | 3384 | 5334 | 888 | ：23 | 8．72\％ | 39，37\％ | 534 |
| 2019 | 875 | ${ }_{5373}$ | $3 \times 35$ | ＊s | 5 se86 | 8．72\％ | 38．37\％ | ${ }^{538}$ |
| 2020 | ${ }^{37}$ | \＄362 | ${ }_{533}$ | 977 | scab | 8．72\％ | 35．3\％ | ${ }^{38} 8$ |
| 2021 | s71 | ${ }_{535}{ }^{2}$ | ${ }^{3220}$ | 872 | ${ }^{8875}$ | 8．72\％ | 38．37\％ | ${ }^{237}$ |
| 2202 | ${ }^{389}$ | 3342 | 3304 | 887 | 5782 | 8．7\％\％ | ${ }^{38,37 \%}$ | ＊26 |
| 2023 | ${ }_{587}$ | \＄332 | ${ }^{3288}$ | s3 | 3730 | 9．72\％ | 3937\％ | ${ }^{235}$ |
| 2024 | ${ }^{3}$ | ${ }^{5122}$ | ${ }^{2273}$ | ${ }^{5} 5$ | 8779 | 8．72\％ | 3437\％ | ${ }_{5}^{24}$ |
| 2025 | sas | 8713 | ＊254 |  | S880 | 8．77\％ | ${ }^{30.37 \%}$ | ${ }_{5}^{23}$ |
| ${ }^{2328}$ | ${ }^{881}$ | ${ }^{5394}$ | ${ }^{2348}$ | \＄31 | ${ }^{8882}$ | 372\％ | 38．37\％ | ${ }_{522}$ |
| ${ }_{2029}^{2027}$ | ¢598 | 5293 <br> 5845 | 3233 5221 | \＄449 | 边 | ${ }_{8.72 \%}$ |  | （820 |


| inctementait Cusiomee Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3. | 4 | 5 | － 6 | － 7 | SEET 7 | $5+8$ |
|  |  |  | Ratc TMarmb To <br> Tolal Sunsurfed | Ammuar Rato | $\begin{aligned} & \text { Anmaal } \\ & \text { \#fac Cost } \end{aligned}$ | Fatic Thems To T持就 Comsumed | Arusual Ratio Totalinctemental OBMCOS Adm \＆OBMCot |  |
| Year |  |  |  |  |  |  |  |  |
| ${ }^{2009}$ |  |  | ${ }^{36,37 \%}$ | \＄0．21 |  | ${ }^{3.3374}$ |  |  |
| ${ }_{2011}^{2010}$ | ${ }_{\substack{\text { s2．0 } \\ 5202}}$ | （ 5 | 33．37\％ | ${ }_{8021}$ | ${ }_{\text {cta }}^{519.32}$ |  | ${ }_{57}^{57}$ | \＄47 |
| 2018 | 52.04 | 324 | $3837{ }^{\circ}$ | ${ }^{812} 27$ | ＊10．7 | 8．3．3\％ | sf | 577 |
| 2043 | \＄2．06 | 325 | 38，3\％ | 85．58 | \＄19．9： | 3337\％ | $s 9$ | 817 |
| 2014 | 52.08 | \％ | 36，3\％\％ | 5858 | $3 \times 2.14$ | 36．3\％ | 58 |  |
| 2045 | ${ }^{52} 210$ | ${ }^{2} 25$ | 34．37\％ | ${ }^{815.58}$ | 820，3： | ${ }^{38.37 \% \%}$ | ${ }_{58}^{58}$ | 517 |
| 2046 | 52．12 | 525 | ${ }^{38,38 \%}$ | ${ }^{88} 58$ | ${ }^{320.5 i}$ | ${ }^{38.37 \%}$ | sa | ${ }^{317}$ |
| ${ }^{2047}$ | s2．14 | 326 | ${ }^{3137 \% \%}$ | 530 | ${ }^{320,72}$ | 3．3．7\％ | ${ }_{53}^{56}$ | 5188 |
| 2048 | 52.17 | 328 | 38，3\％\％ | 80.98 | \＄20．62 | 353．3\％ | ${ }^{53}$ | 818 |
| 2019 | 52.19 | ${ }^{32}$ | 38．37\％ | 50.98 | sit．13 | 3937\％ | ＊88 | ${ }^{519}$ |
| ${ }^{2120}$ | 3228 | 527 | 38．37\％ | ${ }^{10,39}$ | 527.34 | зез\％ | ${ }^{58}$ | \＄19 |
| 2029 | 52.23 | 827 | 38．3\％\％ | 4＊e36 | ${ }^{321.58}$ | 39，37\％ | ${ }^{58}$ | S19 |
| zraz | 52.25 | 527 | 3，37\％ | 510.36 | 527.77 | 33．37\％ | ss | 519 |
| $2{ }^{203}$ | 32.29 | 827 | 33．37\％ | \＄153\％ | ${ }^{221.98}$ | 3f．37\％ | s8 | 372 |
| 2124 | \＄2．30 | sas | 38．37\％ | \＄10．74 | 322：3 | ${ }^{30} 3.37 \%$ | \＄8 | \＄19 |
| 2125 | 32．32 | 528 | 3837\％ | Si074 | ：22，3 | 3837\％ | ${ }^{5}$ | ${ }^{19}$ |
| ${ }^{2026}$ | \＄2．34 | \＄28 | 38．37\％ | 510.74 | s2zer | ${ }^{36.37 \%}$ | se | 319 |
| $\underset{2028}{2027}$ | 52.37 8239 | （ 388 | 33， 3 3\％\％ | ${ }_{\text {\％}}^{511.18}$ | ${ }_{3}^{322.88}$ |  | ${ }_{89}^{86}$ | 320 328 |
| 2028 | \＄2．39 | 58.8 | $3037 \%$ | \＄4148 | 333.11 | 36．37\％ | 59 | 520 |


| 6 Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 3 |
|  | Thatrot | Gas supply | Exas Supply |
| yor |  | Hxe | Cost |
| z20a | 770 | ${ }^{12533}$ | crex |
| 2010 | 70 | 51.285 | S245 |
| $20 \%$ | \％ | 51，2785 | 327 |
| 2012 | \％ | \＄12013 | \＄220 |
| 2013 | 170 | 5t，3092 | 322 |
| 2014 | \％ | 8：3772 | 5224 |
| 2015 | \％ | 54.334 | 528 |
| ${ }^{2015}$ | 180 | 8．333？ | 5288 |
| 2047 | 170 | 81．357： | 323 |
| 2038 | ${ }^{170}$ | 51 3787 | ${ }^{323}$ |
| 2076 | 170 | 51，384 | ${ }^{2375}$ |
| 2005 | 49 | \＄13893 | \＄236 |
| xas | \％ | \＄14222 | S320 |
| 2823 | ${ }_{170}$ | \＄1．4800 | ${ }_{3245}$ |
| 2026 | ${ }^{170}$ | s：1．450 | 5247 |
| 2025 | ${ }^{170}$ | \＄14688 | 4230 |
| zax | 870 | ${ }^{1 / 4893}$ | ${ }_{\text {\％}}$ |
| 2027 | ${ }^{79}$ | ${ }^{3 / 4684}$ | ＊225 |
| 2028 | 17\％ | 81，5141 | 325？ |

# Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program <br> RIM Test - Results 

| Appliance Type |
| :--- |
| Tankless Water Heating |


|  | Incremental Revenue Energy Charge | incremental <br> Revenue Cost of Gas | Incremental Revenue Cust. Charge | Total <br> Gas <br> Revenue | Gas <br> Supply <br> Cost | Investment Carrying Costs | Incremental Customer Costs | Program Cost | Total 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 |
| 2009 | \$62 | \$188 | \$43 | \$293 | \$188 | \$42 | \$15 | \$450.69 | \$696 |
| 2010 | \$62 | \$190 | \$43 | \$295 | \$190 | \$40 | \$15 | \$0.69 | \$246 |
| 2011 | \$62 | \$192 | \$43 | \$297 | \$192 | \$39 | \$15 | \$0.69 | \$246 |
| 2012 | \$62 | \$194 | \$43 | \$298 | \$194 | \$37 | \$15 | \$0.69 | \$247 |
| 2013 | \$62 | \$196 | \$43 | \$300 | \$196 | \$35 | \$16 | \$0.69 | \$248 |
| 2014 | \$62 | \$198 | \$43 | \$302 | \$198 | \$34 | \$16 | \$0.69 | \$248 |
| 2015 | \$62 | \$200 | \$43 | \$304 | \$200 | \$32 | \$16 | \$0.69 | \$249 |
| 2016 | \$62 | \$202 | \$43 | \$306 | \$202 | \$31 | \$16 | \$0.69 | \$249 |
| 2017 | \$62 | \$204 | \$43 | \$308 | \$204 | \$30 | \$17 | \$0.69 | \$251 |
| 2018 | \$62 | \$206 | \$43 | \$310 | \$206 | \$29 | \$17 | \$0.69 | \$251 |
| 2019 | \$62 | \$208 | \$43 | \$312 | \$208 | \$27 | \$17 | \$0.69 | \$252 |
| 2020 | \$62 | \$210 | \$43 | \$315 | \$210 | \$26 | \$17 | \$0.69 | \$254 |
| 2021 | \$62 | \$212 | \$43 | \$317 | \$212 | \$25 | \$17 | \$0.69 | \$255 |
| 2022 | \$62 | \$214 | \$43 | \$319 | \$214 | \$24 | \$17 | \$0.69 | \$256 |
| 2023 | \$62 | \$216 | \$43 | \$321 | \$216 | \$23 | \$17 | \$0.69 | \$257 |
| 2024 | \$62 | \$218 | \$43 | \$323 | \$218 | \$22 | \$18 | \$0.69 | \$259 |
| 2025 | \$62 | \$220 | \$43 | \$325 | \$220 | \$21 | \$18 | \$0.69 | \$260 |
| 2026 | \$62 | \$223 | \$43 | \$327 | \$223 | \$20 | \$18 | \$0.69 | \$262 |
| 2027 | \$62 | \$225 | \$43 | \$330 | \$225 | \$20 | \$18 | \$0.69 | \$263 |
| 2028 | \$62 | \$227 | \$43 | \$332 | \$227 | \$19 | \$18 | \$450.69 | \$715 |
| Present Value of Benefits |  |  |  | \$3,041 | Present Value of Costs |  |  |  | \$2,976 |


| BenefititCost <br> Ratio | 1.01 |
| :---: | :---: |



| Revenue - Customer Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| , | 2 | ${ }^{3}$ |  | 43 |
|  | Moriby |  | Ewis Thems |  |
|  | Custurer | Amunal Customea | To Tolat | Preatax Anous |
| ${ }^{2009}$ | stowe | 812200 | ${ }^{35} 5685$ |  |
| 2010 | \$1000 | 5112.00 | ${ }^{35} 498 \%$ |  |
| 2011 | \$10.00 | 5820.60 | 35.4.4\% | \%3 |
| 2012 | \$1050 | \$12000 | $35.408 \%$ | 5 |
| 2813 | \$10.00 | \$122,009 | 33.46\% | 53 |
| 2074 | 110.00 | \$12006 | 35.46\% | 43 |
| 2015 | \$1000 | \$120.00 | \%m\% | 693 |
| 2016 | 51000 | \$120.00 |  | 4 |
| 2017 | \$1000 | \$120.00 | 35, 3 5\%\% | sa |
| 2018 | s1000 | \$20000 | 35.48\% | ${ }^{4}$ |
| 2019 | 510.00 | 5120.00 | 25.46\% | ns |
| 2028 | \$10.00 | 5120.00 | 33,48\% | ${ }^{4}$ |
| 2027 | 510.00 | \$12000 | 535.46\% | 513 |
| 2027 | 51000 | \$120.00 | 3549\% | Sa3 |
| 2023 | 510.08 | \$120.00 | 35.40\% | 43 |
| 2024 | \$1000 | \$120.00 | $33.45 \%$ | 43 |
|  | \$1000 | 512000 | 35.48\% | 43 |
| 2026 | \$1000 | 512000 | 35.46\% | \% |
| ${ }^{2027}$ | \$10,00 | \$120.00 | 35.46\% | 43 |
| 2083 |  | 518000 | 3546\% | 543 |


| Investment Carrying Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 8 | 6 | 1 | 8 | cry |
|  | Supply Develcomerm: |  | sentes |  | Toaid | csa | Feilio ot themme | investrma |
| $Y_{\text {max }}$ | Whatict | ${ }_{\text {Main }}$ | \% | Mmer | Investrant | crobet | consmmedty Total | canyrs cost |
| ${ }_{2010}$ | ${ }_{587}$ | S4889 | ${ }_{3569}$ | ${ }_{5152}$ | ¢ | ${ }^{8.3729}$ | 5 |  |
| 2011 | 5504 | 54872 | 5840 | 5142 | 8, 21.46 | 872\% | 35,48\% | 438 |
| 2012 | 894 | 345 | 3512 | 8133 | 31.104 | (77\% | 35,46\% | 33 |
| 2013 | 598 | 5445 | 3488 | ${ }^{124}$ | 51.48 | 8.72\% | 35.48\% | ${ }^{3} 3$ |
| 2014 | \$45 | 3132 | 5481 | 3118 | 81, ${ }^{\text {a }}$ | 8.72\% | 35.486 | \% |
| 2046 | 593 | \$410 | \$937 | ${ }^{5108}$ |  | 8.78 | 35.48\% | \$38 |
| 2 atb | 831 | 5406 | 415 | 3101 | \$1,004 | 8.72\% |  | 5 |
| 2097 | ${ }^{578}$ | 3398 | ${ }^{\text {s304 }}$ | 588 | \$062 | 8.72\% | 35.46\% | 830 |
| 2018 | ${ }^{37}$ | 5304 | \$374 | 588 | \$623 | 8.72\% | 35.40\% | 329 |
| 2019 | 575 | 3373 | \$335 | 382 | sks\% | 8.7\%\% | 35.49\% | 27 |
| 2220 | 873 | 3362 | 3337 | 577 | 5849 | ${ }^{872 \%}$ | $35.48 \%$ | ${ }^{26}$ |
| ${ }^{2021}$ | \$71 | 3352 | 8323 | 372 | ${ }_{\text {scs }}$ | 878 | 35.48\% | 825 |
| 2022 |  | 8342 | ${ }^{334}$ | 307 | 5782 | 8.72\% | 35.4048 | 324 |
| ${ }^{2023}$ | 897 | 5332 | ${ }^{5238}$ | 103 | ${ }^{5750}$ | $8.72 \%$ | 3 xamm | 323 |
| ${ }^{2024}$ | stas | ${ }^{3322}$ | ${ }^{3273}$ | 5sa | ${ }^{5719}$ | 8.72\% | 35.46\% | ${ }_{3} 2$ |
|  | 863 | 5313 | ${ }^{3258}$ | s5s | 5680 | ${ }^{\text {8,72\% }}$ | 35.40t | 524 |
| 2028 | 88 | 3304 | ${ }_{5236}$ | 351 | Stede | ${ }^{8.72 \%}$ | 3340\% | ${ }_{5} 29$ |
| ${ }^{2027}$ | 359 | ${ }^{3285}$ | ${ }_{5233}$ | 548 | se3s | 8.72\% | 35.48\% | 380 |
| 2228 | 557 | 5726 | 5224 | 845 |  | 872\% |  | 319 |


| Hicremantal Cusiomer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | $\bigcirc$ | 5 | 6 | 7 | gen ${ }^{\text {a }}$ | $5 \cdot 8$ |
|  |  |  |  | Anmat Ratio | Antual | Rasto Thems to | Ammal Ratic Tolal incomemenal |  |
| Y mar |  |  |  | Aamicsas | oxacos | Toat consumes |  |  |
| ${ }^{2009}$ |  |  | ${ }^{3554 \% \%}$ | S851 | ${ }^{316.18}$ | ${ }^{35.46 \%}$ | ${ }^{37}$ |  |
| 2010 | \$200 | 324 | 35.48\% | **s: | 31838 | 35.46\% | \% | ${ }^{1315}$ |
| 2 m | \$2.02 | 324 | 35.48\% | sns: | 41854 | 35.40\% | 87 | \$35 |
| 2012 | 32,04 | 32 | 35.888\% | se.5: | \$647\% | 35.49\% | ${ }^{37}$ | ${ }^{3}$ |
| ${ }^{2013}$ | 528 | ${ }^{325}$ | 95.46\% | se.37 | 519.9 | ${ }^{35}$ se9\% | 57 | ${ }^{516}$ |
| 2014 | ${ }^{32} 208$ | *28 | 3548\% | \$8.87 | 820.11 | 35.40\% | \$7 | ${ }^{316}$ |
| 2015 | 82.0 | s26 | 35.48\% | se.87 | s22,31 | 35454 | \% | 516 |
| ${ }^{2016}$ | 82.12 | 325 | ${ }^{35.464 \%}$ | ${ }^{88} 887$ | \$20.51 | 3548\% | s7 | sti6 |
| ${ }^{2017}$ | 52.14 | ${ }^{28}$ | $35.44 \%$ | 58.22 | 523.72 | ${ }^{35.46 \%}$ | \% | 517 |
| $\underline{2048}$ | 32.17 | ${ }^{32}$ | $35.80 \times$ | 88.23 | ${ }^{32082}$ | 35.48\% | * | 317 |
| ${ }^{2018}$ | \$2.18 | 328 |  | 58.25 | 521.13 |  | \% | 37 |
| ${ }^{2020}$ | \$2.27 | ${ }_{527}$ | ${ }_{35}$ | 56.57 | ${ }^{5 \times 134}$ | 83.46\% | 8t | 57 |
| ${ }^{2025}$ | 5223 | 827 | 33.485\% | \$8.57 | ${ }^{32756}$ | 3548\% | sid |  |
| ${ }^{2022}$ | 32.35 | ${ }^{27}$ | 35.48\%\% | *3.57 | 521.77 | 36.66\% | 38 | ${ }^{17}$ |
| ${ }^{2023}$ | 8228 | ${ }^{527}$ | 36.48\% | 30:37 | ${ }^{521.98}$ | ${ }^{33} 468$ | \$8 | 517 |
| ${ }^{2024}$ | 12.30 | ${ }^{328}$ | 35.46\% | 80.93 | \$2221 | 1549\% | *8 | ${ }^{518}$ |
| ${ }^{2028}$ | 52.38 | \$28 | 35.46\% | 59.83 | ${ }^{32,43}$ | ${ }^{35.46 \%}$ | 5 | \$18 |
| 2026 | 22.4 | ${ }^{328}$ | ${ }^{35} 596 \%$ | 3893 | s2es | 25,46\% | 58 | ${ }^{\text {s18 }}$ |
| ${ }^{\text {age }}$ | \$2,37 | \$28 | 3548\% | se.93 | *288 | 35.48\% | ${ }^{38}$ | ${ }^{518}$ |
| ${ }^{2028}$ | ${ }^{3} 389$ | 328 | 354\%\% | \$10.28 | ${ }^{523} 911$ | ${ }^{35}$ deve | $3{ }^{3}$ | 518 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | $2 \cdot 3$ |
|  | Therm | Pestherm | Gas supati |
| Year |  | sumply Cost | cost |
| ${ }^{20196}$ | ${ }^{150}$ | ${ }^{1.2533}$ | ${ }_{5}^{5188}$ |
| 2ats | 150 | 51.2859 | S196 |
| 2004 | ${ }_{150}$ | ${ }^{8} \mathbf{8} 2785$ | \$1822 |
| 2012 | 150 | ${ }^{51.1883}$ | 3194 |
| 20,3 | 150 | \$1.3042 | 5198 |
| 20.4 | 50 | \$1372 | 5189 |
| 2015 | \%os | \$1.3304 | 5230 |
| 2016 | 158 | \$1,3437 | 5202 |
| 2017 | 150 | \$1,351 | 5204 |
| 2048 | ${ }^{159}$ | 51307 | 5206 |
| 200 | ${ }_{150}$ | ${ }^{51} 38.3$ as | S203 |
| 2000 | 150 | ${ }^{513889}$ | 327 |
| 2021 | 150 | \$1.4122 | 5212 |
| 2027 | 150 | S1,4264 | 32:4 |
| 2023 | ${ }^{59}$ | \$1,4cos | ${ }^{2216}$ |
| 2024 | 150 | 814550 | 5278 |
| 2085 | 150 | ${ }^{5148966}$ | 5220 |
| ${ }^{2025}$ | 159 | \$14833 | 523) |
| 2207 | 150 | 8/4988 | 3225 |
| 2028 | 150 | \$1.5141 | 527 |

# Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results 

Appliance Type<br>Heating System



| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Heating Syslem |  |  |  |
|  |  |  | 1．0\％ |
|  |  |  | 06 |
|  |  |  | \％$\%$ |
|  |  |  | \％\％ |
| Tata 1 |  |  |  |
| Revenue－Energy Charge |  |  |  |
| 1 | 2 | ， | $\mathrm{z}^{2}$ |
|  | Thems | Besp Rase | Ttatichage |
| 2009 |  |  |  |
| 2098 | 778 | 50.4147 | ${ }^{37}$ |
| 2011 | ${ }^{1788}$ | 50．4147 | 574 |
| ${ }^{2012}$ | ${ }^{179}$ | 504147 | 874 |
| ${ }_{2014}^{2013}$ | （788 | 50，${ }_{5}^{50447}$ | 384 |
| 2014 | ${ }^{73}$ | 5.4447 | 574 |
| ${ }^{2015}$ | ${ }^{778}$ | \＄0．447 | 874 |
| ${ }^{2046}$ | 178 | 59.4147 | 887 |
| ${ }_{2017}^{2017}$ | \％ 78 | 50．4147 | 878 |
| 2048 | 178 | 50.464 | 574 |
| 2020 | ${ }^{128}$ | \＄0．4447 | 574 |
| $202 \%$ | 178 | S0． 4147 | 574 |
| 2022 | ${ }^{178}$ | \＄0．4．44 | 874 |
| ${ }_{2023}^{2023}$ | 178 | ${ }^{35} 51447$ | 87\％ |
| ${ }_{2025}^{2024}$ | 178 | 50．4447 | ¢ |
| 2026 | ${ }_{\text {47 }}$ | ${ }_{50}^{50.41467}$ | 574 |
| 2037 | 1\％ | 50， 8 4， 4 | \％7a |
| 2028 | 178 | s0．414 | 378 |

Onperclation Ratas－Suppery Main Depsescalsen Rat－－Devedomant Main Despereitition Rata－Mutor
$\left[\begin{array}{r}2810 \% \\ -\quad 880 \% 10\end{array}\right.$


| Revenue－Customer Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | ${ }^{3} 3$ | $\underline{4}$ | 43 |
|  | Mornhy Customer | Astual Cussomer | Wetio Thems <br> Tia Tot영 | Froato Anvia |
| 20 CK | \＄10，60 | \＄120．00 | \＄2 1888 | wh |
| 2010 | \＄1080 | srame | 40，18\％ | 48 |
| 2014 | stuck | \＄120．50 | 40，16\％ | 348 |
| 2012 | $\$ 10.00$ | \＄120．00 | 40．48\％ | S48 |
| ${ }_{2013}^{2018}$ | \＄1000 | \＄120．00 | 4．16\％ | 5480 |
| 2018 | \＄10．00 | \＄12．00 | 40．76\％ | 508 |
| 2015 | \＄10．00 | 5120．00 | 49， 818 | stis |
| ${ }^{2016}$ | 510.00 | simion |  | \％ |
| ${ }_{2018}^{2017}$ | （ | S10．00 | 40， $4.18 \%$ | \％ |
| ${ }^{2018}$ | \＄1000 | \＄120．00 | ${ }_{40}^{40.18 \%}$ | 44818 |
| 2020 | ${ }^{51000}$ | \＄12000 | 40．88\％ | 54 |
| 2021 | 510．00 | \＄272．00 | 60．19\％ | sat |
| ${ }^{2022}$ | ${ }_{5}^{510.00}$ | St20．00 | 40．19\％ | ${ }^{264}$ |
| ${ }^{2023}$ | stocie | 5 | 40.198 | 548 |
| 2024 | \＄10．03 | \＄120．00 | 40．18\％ | 54 |
| 2025 | 510.30 | \＄20．50 | 40．18\％ | $4{ }^{4}$ |
| 2027 | 510.00 | \＄120．60 | $4{ }^{4.19 \%}$ | 548 |
| ${ }_{2028}^{2027}$ | （1000 | （ti2ation | （40．18\％ |  |


| Investment Carring Costs． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Sup | Osveiepremt | Sanves |  | Total | cost | Ratioo of Themis | 1 trvasmman |
| ${ }^{\text {rear }}$ | $\frac{\text { Man }}{5100}$ | M man | ${ }^{\text {Lno }}$ | ${ }^{\text {Masor }}$ | Leremment | cidem | Consumec foreal | ${ }_{\text {rimm }}$ |
|  |  |  |  |  |  | B，7\％\％ |  |  |
| 2010 | 88 | 546 | \＄568 | S2 | \＄1，364 | 8．72\％ | 8\％ |  |
| 2018 | \％ | S42 | 58 | 析 | S， 214 | \％2\％ | \％ |  |
|  | 101 | Sase | 34， | 3 | \％rice | \％ $72 \times$ | 4276\％ |  |
| 203 | 3n8 | 㖪 | 迷 | \＄124 | 51，43 |  | 407\％ | 4 |
| 2014 | ses | \％ | \％ | 3188 | St，0u4 | ${ }^{8.72 \%}$ | 40．18\％\％ | 538 |
| 2015 | 88 | S4， | 3437 | 3109 | stout | $8.72 \%$ | $40.189^{6}$ | ${ }^{37}$ |
| ${ }^{2046}$ | saf | 5457 | 5415 | sar | 8104 | 9．72\％ | 40．18\％ | 3035 |
| 2097 | ${ }^{374}$ | \＄365 | 5381 | 5 | \＄162 | 8，72\％ | 4008\％ | \％ |
| ${ }^{2018}$ | 57 | 538．4 | 5374 | ＊88 | 5023 | $8.72 \%$ | 10， $88 \%$ |  |
| 2018 | 578 | 373 |  | se82 | 3895 | 8，726 | 40.15 | 834 |
| ${ }^{2022}$ | 573 | \＄382 | 339 | 872 | 8488 | 8，72\％ | 10．78\％\％ | 830 |
| 2021 | ${ }^{577}$ | 5382 | s320 | \＄72 | 5915 | 8．72\％ | 40．18\％ | 528 |
| 2022 | ${ }^{36}$ | 3，42 | 3304 | ＊ | mat | $8.72 \%$ | 40.168 | ${ }^{27}$ |
| 2043 | ${ }^{567}$ | \＄332 | ${ }^{58288}$ | ＊ 4 | 875 | ${ }^{8.272 \%}$ | ＊018\％ | ${ }^{268}$ |
| 2024 | ${ }^{6}$ | 8322 | 3773 | 854 | ${ }_{8719}$ | 8．72\％ | 40 $18 \%$ | 823 |
| 2025 | ＊63 | sif | ${ }^{3258}$ | ${ }^{555}$ | S630 | 8．72\％ | 40，8\％\％ | 24 |
| 20.86 | 561 | 5304 | ${ }^{3246}$ | 559 | 3685 | $8.72 \%$ | 40 16\％ | 523 |
| ${ }^{2027}$ | ${ }^{459}$ | sem | ${ }_{5} 523$ | ${ }^{548}$ | 5035 | 672\％ | 40．18\％ | 522 |
| 2028 | S57 | ${ }^{8288}$ | 5221 | 845 | S603 | 8，72\％ | 60．88\％ | 321 |


| meremental Customer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Mometh | Anuma | Retatasims to | Ambuel Ratio | Ampre： | Ralio Themse $\mathrm{T}_{4}$ | Anuai Rat |  |
| Yay | $\frac{\text { Adm．}{ }^{\text {chas }} \text { S }}{1888}$ | ${ }_{\text {aim }}$ | － | $\frac{\text { Atm }}{\text { cose }}$ |  | $\frac{\text { Teal Consme }}{40.18 \%}$ | $\frac{\mathrm{Dam}}{5}$ | $\frac{8087}{817}$ |
| 2010 | s2．00 | 584 | 40．36\％ | s0．04 | \＄1932 | $90.15 \%$ | 88 | ${ }_{57}$ |
| 2017 | ${ }^{2} 202$ | ${ }^{24}$ | 50．13\％ | se．at | S10．54． | 20， 3 \％ | s8 | 39 |
| 2012 | 32,06 | 524 | 40．18\％ | S0．e4 | s1671 | $4{ }^{4.19 \%}$ | 5\％ | st |
| 2013 | 52．06 | 525 | 40．18\％ | 510.05 | \＄19．94 | 90，18\％ | \＄8 | 518 |
| 2045 | ${ }^{32} 288$ | ${ }^{225}$ | 40．18\％ | Stucs | 5204 | 40．18\％ | ${ }^{56}$ | 58 |
| 2095 | 32.10 | ＊25 | 40， $7 \times 4$ | \＄5005 | 520.31 | 40．19\％ | s8 | 518 |
| 2046 | 82．12 | 125 | 40．98\％ | 51005 | \＄20．51 | 40．78\％ | 5 | ${ }^{54}$ |
| 2017 | ${ }_{5214}$ | \＄288 | ${ }^{10,9,99 \%}$ | \＄10．45 | 530．72 | ${ }^{40} 8.89$ | 58 | ${ }^{548}$ |
| ${ }^{2018}$ | 52.17 | ${ }^{268}$ | 20．198\％ | \＄10．45 | \＄20．92 | 40.98 | ${ }^{88}$ | 548 |
| 2048 | 82.15 | ${ }^{22}$ | 40．18\％ | 510.45 | 52\％13 | 40．9\％ | se | 54 |
| 2020 | 52.27 | 527 | 40．76\％ | 510.85 | 52：36 | 40 19\％ | sb | 519 |
| 2027 | ${ }^{2723}$ | 527 | 40， 8 \％e8 | stos | ${ }^{527.56}$ | 40．18\％ | ${ }^{58}$ | ${ }^{220}$ |
| 2023 | 3225 | ${ }^{237}$ | 40．78\％ | 510.85 | 521．77 | 40．88\％ | ${ }^{58}$ | S29 |
| 2023 | ${ }^{5228}$ | ${ }^{57}$ | 40．19\％ | 510.85 | ${ }^{\text {s27 } 98}$ | 40．14\％ | ${ }^{59}$ | ${ }^{\text {528 }}$ |
| ${ }^{2024}$ | 8230 | 528 | 20．19\％\％ | S1．25 | 522.21 | 40.45 | ss | ${ }^{328}$ |
| 2025 | 52.32 | ${ }^{328}$ | 40．10\％\％ | s 11.25 | 522．43 | 40．98\％ | ss | 528 |
| ${ }_{2027}^{2020}$ | 52.34 52.37 | ${ }_{528}^{528}$ | 50．16\％ | \＄11．25 |  | 40， $40.19 \%$ | ${ }_{\text {sf }}^{59}$ | 520 520 |
| $\underline{202 a}$ | E233 | 528 | 40．188 | ${ }_{81165}$ | 523.15 | 40．198\％ | 58 | ${ }_{524}$ |


| gascosis |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | － | ， | $2{ }^{23}$ |
|  | Thams | Pet Therm |  |
| Yest | ${ }^{178}$ |  | ${ }_{5}^{\text {coses }}$ |
| 2atio | 198 | 8：12959 | 3225 |
| 201 | ${ }^{178}$ | \＄12785 | ${ }^{5228}$ |
| 2012 | ${ }_{7} 9$ | 31．2943 | 5230 |
| 2013 | ；78 | ${ }^{313042}$ | 5232 |
| 2014 | ${ }^{178}$ | 8！ 3172 | 5234 |
| 2045 | ${ }^{178}$ | ${ }^{1133304}$ | 5237 |
| 296 | ${ }^{98}$ | 51．347 | ${ }_{5239}$ |
| ${ }^{2017}$ | ${ }^{1788}$ | \＄13571 | 5342 |
| 2016 | ${ }^{178}$ | 513709 | 524 |
| 2018 | ${ }^{776}$ | 51.354 | 5248 |
| ${ }^{2020}$ | ${ }^{178}$ | ${ }^{31.38983}$ | 5249 |
| 2024 | ${ }^{779}$ | 51．4122 | 5251 |
| 2332 | 178 | ${ }^{31.42646}$ | \＄254 |
| 2023 | 178 | s，4146e | 5285 |
| 2024 | ${ }^{178}$ | 814550 | ${ }^{8238}$ |
| 2025 | ${ }^{788}$ | 8：4106 | ${ }^{3828}$ |
| ${ }_{2027}^{2026}$ | 178 | 81.4483 | （284 |
| ${ }^{2022}$ | ${ }^{18}$ | \＄31．5141 | ${ }^{36}$ |

# Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program <br> RIM Test - Results 

| Appliance Type |
| :--- |
| Clothes Drying |


|  | Incremental Revenue Energy Charge | Incremental Revenue <br> Cost of Gas | Incremental Revenue Cust. Charge | Total <br> Gas <br> Revenue | Gas <br> Supply Cost | Investment Carrying Costs | Incremental Customer Costs | Program Cost | Total <br> 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 8 |
| 2009 | \$21 | \$63 | \$14 | \$97 | \$63 | \$13 | \$5 | \$100.20 | \$181 |
| 2010 | \$21 | \$63 | \$14 | \$98 | \$63 | \$13 | \$5 | \$0.20 | \$81 |
| 2011 | \$21 | \$64 | \$14 | \$98 | \$64 | \$12 | \$5 | \$0.20 | \$81 |
| 2012 | \$21 | \$65 | \$14 | \$99 | \$65 | \$12 | \$5 | \$0.20 | \$81 |
| 2013 | \$21 | \$65 | \$14 | \$99 | \$65 | \$11 | \$5 | \$0.20 | \$82 |
| 2014 | \$21 | \$66 | \$14 | \$100 | \$66 | \$11 | \$5 | \$0.20 | \$82 |
| 2015 | \$21 | \$67 | \$14 | \$101 | \$67 | \$10 | \$5 | \$0.20 | \$82 |
| 2016 | \$21 | \$67 | \$14 | \$101 | \$67 | \$10 | \$5 | \$0.20 | \$82 |
| 2017 | \$21 | \$68 | \$14 | \$102 | \$68 | \$9 | \$5 | \$0.20 | \$83 |
| 2018 | \$21 | \$69 | \$14 | \$103 | \$69 | $\$ 9$ | \$5 | \$0.20 | \$83 |
| 2019 | \$21 | \$69 | \$14 | \$104 | \$69 | \$9 | \$5 | \$0.20 | \$83 |
| 2020 | \$21 | \$70 | \$14 | \$104 | \$70 | \$8 | \$5 | \$0.20 | \$84 |
| 2021 | \$21 | \$71 | \$14 | \$105 | \$71 | \$8 | \$5 | \$100.20 | \$184 |
| 2022 | \$21 | \$71 | \$14 | \$106 | \$71 | \$8 | \$6 | \$0.20 | \$85 |
| 2023 | \$21 | \$72 | \$14 | \$106 | \$72 | \$7 | \$6 | \$0.20 | \$85 |
| 2024 | \$21 | \$73 | \$14 | \$107 | \$73 | \$7 | \$6 | \$0.20 | \$86 |
| 2025 | \$21 | \$73 | \$14 | \$108 | \$73 | \$7 | $\$ 6$ | \$0.20 | \$86 |
| 2026 | \$21 | \$74 | \$14 | \$108 | \$74 | \$7 | \$6 | \$0.20 | $\$ 87$ |
| 2027 | \$21 | \$75 | \$14 | \$109 | \$75 | \$6 | \$6 | \$0.20 | \$87 |
| 2028 | \$21 | \$76 | \$14 | \$110 | \$76 | $\$ 6$ | \$6 | \$0.20 | \$88 |
| Present Value of Benefits |  |  |  |  |  | Present Value of Costs |  |  |  |
|  |  |  |  | \$997 |  |  |  |  | \$943 |
|  |  |  |  |  |  |  | Benefit/Cos Ratio |  | 1.06 |

Appliance Type lothes Drying


| Investiment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 8 | 8 | 7 | 8 | 878 |
|  | Supply | Devicioperm | Sarcics |  | TMat | ${ }^{\text {cosam }}$ | Rxticoot Thems | trymament |
| $\mathrm{Y}_{\text {max }}$ | main | Main | Line | Meties | Investrems | stomat | Cossamad To Total | Carrymg Cos |
| ${ }^{2089} 8$ | 3189 | ${ }^{3500}$ | \$800 | ${ }^{1183}$ | ${ }^{81,363}$ | 87ram | 11.29\% |  |
| 22710 | 59 | ${ }^{5486}$ | 3568 | 3152 | \$1,304 | 1.72\% | ${ }^{11.23 \%}$ | 543 |
| 204 | ${ }^{504}$ | ${ }^{4742}$ | \$540 | 5.48 | 51.24e | $8.12 \%$ | 111.29\% | 512 |
| 2012 | 591 | \$4s8 | \$512 | 5133 | s1,19id | 8\%\% | 11.28\% | 32 |
| 2013 | ${ }^{383}$ | 5445 | 5488 | s124 | ${ }^{81,143}$ | 8,72\% | 11.20\% | 514 |
| 2014 | * | 5432 | 3464 | ssit | \$1.083 | 8, $72 \%$ | 11.28\% | st1 |
| 2015 | ${ }^{\text {\% }}$ | 5019 | 343! | 5105 | 51.047 | ${ }^{\text {a }}$, $72 \%$ | 11.293 | 510 |
| 2016 | 39 | star | S415 | 5109 | ${ }_{31,0 \times 4}$ | 8, $72 \%$ | 11.28\% | ss |
| 2017 | s7\% | s3as | 838 | ${ }^{594}$ | 5962 | $8.72 \%$ | 11220\% |  |
| 2018 | 577 | S394 | ${ }^{378}$ | ${ }^{588}$ | s93 | 872\% | 11.28\% | * |
| 2018 | ${ }^{375}$ | 5373 | \$355 | sk 2 | stes | 872\% | 11.29\% |  |
| ${ }^{2020}$ | 53 | \$362 | 5337 | 57 | 5849 | ${ }^{8} 7284$ | 11.23\% | ${ }_{58}^{58}$ |
| ${ }^{2022}$ | 57: | \$352 | \$320 | 572 | 5815 | $872 \%$ | 1,20\% |  |
| ${ }^{2022}$ | seg | \$342 | \$304 | ${ }^{867}$ | 578\% | 8772\% | 11.28\% |  |
| ${ }^{2023}$ | ${ }_{\text {cter }}^{565}$ | 5332 | 5288 | ${ }^{863}$ | 5750 | 8.72\% | $11238 \%$ |  |
| ${ }^{2024}$ | ${ }^{565}$ | ${ }^{3322}$ | ${ }^{8273}$ | ${ }^{558}$ | 8749 | 8,72\% | 11.28\% | s\% |
| 2025 | Sts | ${ }^{3313}$ | 3278 | \$35 | 88890 | ${ }^{\text {A }}$ | 1120\% | \$7 |
| ${ }_{2027}^{2026}$ | 589 <br> 858 <br> 88 | 3304 <br> $\$ 225$ |  |  | (8662 | cimer |  |  |
| $\underset{\substack{2027 \\ 2888}}{2}$ | ${ }_{\substack{\text { ss } \\ \text { sf }}}$ | S225 <br> 5268 | ${ }_{\text {cke }}^{5238}$ | (348 | ( 8835 | ${ }_{\text {a }}^{8.772 \%}$ | (1128\%\% | ${ }_{\substack{36 \\ 86}}$ |


| Thicrementai Customer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | $\bigcirc$ | 6.34 | ${ }^{8}$ | 7 | $8=67$ | S.0. |
|  | Mortay | Annyal | Rate Thems bo | Anmus Rato | Ammal | Rato thems $\mathrm{To}^{\text {a }}$ | Anmal Ratio | Tua mexmenta |
| Vear | Adm. ${ }^{\text {cast }}$ | Adm. ${ }^{\text {csas }}$ | Total Consumad | Astrs Cass | oskcost | Total Consumed | OsmCost | Adm $\operatorname{sosmagas}$ |
| ${ }_{2010}^{2014}$ |  |  | (12, | (3274 | - | 11.28\% | s22 | ${ }_{55}^{55}$ |
| 2019 | ${ }_{52.08}$ | 534 | $1.29 \%$ | 32.21 | 5rest | 11.28\% | 82 | ${ }_{55}$ |
| 2012 | 5308 | \%2 | 12,29\% | ${ }_{32} 271$ | \$197\% | 11.20\% | 8 | \% |
| 2013 | 5206 | ${ }^{228}$ | 12.29\% | s2.82 | \$19.91 | 11.28\% | 52 | \$5 |
| 2014 | ${ }^{32} 8$ | ${ }^{225}$ | 11.29\% | \$2.82 | \$20.11 | 11.298 | 2 | 5 |
| 2015 | \$2.10 | \% 285 | 11.290\% | 52.82 | 520.31 | 11.290\% | ${ }_{88}^{58}$ | 3s |
| ${ }^{2016}$ | 5217 | \$25 | 11290\% | ${ }^{\text {S2 } 28}$ | ${ }^{520.51}$ | ${ }^{11.289 \%}$ | ${ }_{5}^{52}$ | ${ }^{3}$ |
| 2017 | ${ }_{\substack{52,4 \\ 5217}}$ | ${ }^{238}$ | 11.29\% | (52.93 | 520.72 | $11120 \times 6$ | ${ }_{52}$ | \% |
| ${ }^{2016}$ | 5217 | \%26 | 1298\% |  | 520.92 | ${ }^{11290 \%}$ | ${ }_{8}^{52}$ | \$5 |
| ${ }^{20,18}$ | \%219 | ¢ | 1.1.2996 |  | 522.13 | (1129\%\% | 828 | 58 |
| 2072 | ${ }_{5} 5231$ | ${ }^{582}$ | 11.29\% | 53,05 | ${ }^{521384}$ | ${ }^{11} 1.298 \%$ | 58 | 85 |
| ${ }_{2022}^{2027}$ | - | ${ }_{5}^{527}$ | 17.2ax | sacre | 527.56 | 11.28\% | 52 | 585 |
| ${ }_{2023}^{2023}$ | 5225 | 527 | 1, $1.29 \%$ | (5305 | Sting | 11.23\% | ${ }_{5}^{5}$ | 58 |
| ${ }_{2023}^{2023}$ | 5238 |  | ${ }^{13,29 \%}$ | 30.05 | ${ }^{521469}$ | 1138\% | 5 | 88 |
| 2024 2025 | - 5230 | 边 | ${ }^{112.296 \%}$ | 5314 | ${ }^{522} 21$ | \%129\% | ${ }^{53}$ | ${ }^{56}$ |
| 2025 <br> 2020 | 5232 523 |  | 11299\% | 年3188 | 53243 | 111.28\% | ${ }_{53}^{53}$ | ${ }^{56}$ |
| ${ }_{2027}^{2028}$ | ${ }_{523} 3$ | ${ }^{328}$ | $11.28 \%$ | 53.15 | ${ }^{52285}$ | 11.28\%\% | 5 | ${ }_{86}^{56}$ |
| ${ }_{2028}^{2027}$ | $\underset{\substack{\text { s23,39 } \\ 5 \times 3}}{ }$ | +288 | (11.29\% | $\underset{\substack{53.16 \\ 53.27}}{ }$ |  | (11.2e\% | ${ }_{\text {s3 }}^{53}$ | ${ }_{56}^{86}$ |


| Gas Cosit |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 23 |
|  | Therns | Per Thema |  |
| $\frac{Y}{\text { Yex }}$ | 89 | 5 Suppy Cost | coet |
| 2010 | ${ }_{50}^{58}$ | \$12054 | ${ }_{5 \text { co }}$ |
| xen | ${ }_{50}$ | \$1.77\% | 340 |
| 2002 | 50 | 512013 | 885 |
| 2013 | 50 | \$1.3092 | 3 |
| 2014 | ${ }_{59}$ | \$1.3122 | 56 |
| 2295 | 50 | ${ }^{13} 33504$ | 367 |
| 2015 | so | 81, 347 | ${ }^{567}$ |
| 2017 | ${ }^{56}$ | \$13574 | 368 |
| 2918 | ${ }_{58}$ | \$1370\% | 868 |
| 2019 | $5{ }^{50}$ | \$1.3840 | 56 |
| ${ }^{2020}$ | ${ }_{50}^{50}$ | 513093 | 510 |
| 2021 | 50 | 31.4728 | 81 |
| 2022 | so | Stinza | \% |
| ${ }_{20,3}^{20,3}$ | ${ }_{50}^{50}$ | Stase | 572 |
| ${ }^{2024}$ | 5 | \$114550 | 83 |
| 2025 | 5 | staseed | 573 |
| 2328 | 5 | 8) 8 das | 374 |
| ${ }^{2027}$ | 5 | St | 88 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Cooking |



| Appliance Type |
| :---: |
| Cooking |


| Fuar Rase Exclaltor | 1.0\% | Depreserition Rats - Supply main | 2.0000 |
| :---: | :---: | :---: | :---: |
| Se Rue Ecalator | $\infty$ | Daprestaicor Rate Dovelopmert Mas | 230\% |
| Gas Cuasmer Chagno Eccrider | \% |  | 5.108 |


| Revente, Eneryy Charge |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Year | Thom | Basa Pato | Total Chers |
| 2008 | 4 | ${ }^{30} 4147$ |  |
| ${ }^{2014}$ | ${ }_{4}^{45}$ | ${ }^{50.447}$ | \$19 |
| 2091 | 45 | s0.447 | 819 |
| 2012 | ${ }^{45}$ | 80.4147 | * 48 |
| 2013 | 45 | 80.414; | 518 |
| 2014 | * | 50.444 | 819 |
| 2015 | * | ${ }^{50.4147}$ |  |
| 2017 | ${ }_{45}$ | 80.4147 | s9 |
| 2019 | 45 | 80.4147 | 819 |
| 2019 | 45 | S0.447 | 518 |
| 2020 | ${ }^{45}$ | 50.414 | ${ }^{19}$ |
| ${ }^{2021}$ | 45 | 50.4147 | \$19 |
| 2022 | 45 | 50.4447 | * |
| 2023 | 45 | 60.444? | 519 |
| ${ }^{2024}$ | 45 | 30,447 | 518 |
| ${ }^{22225}$ | 4 | 50.4157 | 19 |
| ${ }_{2028}^{2028}$ | ${ }_{4}$ | ${ }_{\text {cose }}^{50.4147}$ | ${ }^{36}$ |
| ${ }_{2029}^{2028}$ | ${ }_{4}^{46}$ | ${ }_{50} 80.44474$ | 819 |


| investiment Carring Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | ${ }^{6}$ | 1 | 8 | 978 |
|  | Supply | Developmemt | sevvice |  | tore | Cost | Resicol themm | axssment |
| ${ }_{\text {quar }}$ | Matin | Man | Lime | M mite | treastreat | altat | Consmasal To Total | Cayym Cost |
| 22089 | Stiod | (560) | sem | 5183 | ${ }^{813,33}$ | ${ }^{8.37246}$ | 20,436 | ${ }_{1 / 2}$ |
| 2060 | 893 | \$489 | 5589 | \$152 | ${ }^{31,394}$ | 8.72\% | 10.16\% | ${ }^{512}$ |
| 2011 | 3 | \$482 | ${ }^{5546}$ | 5442 | 81,248 | ${ }_{8} 872 \%$ | 1010\%\% | 814 |
| 2912 | *9: | 5453 | 8512 | 5133 | 51,96 | 2.72\% | 10.15\% | $8: 1$ |
| 2013 | ${ }^{888}$ | S\$45 | 5498 | 3124 | s1,143 | s.72\% | 10.4*\% | ${ }^{\text {sif }}$ |
| 2014 | тns | s,432 | S48: | stite | 3:086 | 8.784 | 10, 4 \% | 19 |
| 2095 | s83 | \$419 | 54.37 | \$108 | 51,47 | 8.72\% | ${ }^{10.189 \%}$ | ${ }_{5}^{58}$ |
| 2016 | sta | 3467 | 3415 | Stor | ${ }_{\text {trase }}$ | $8.72 \%$ | 10.10\% | *9 |
| 2017 | ¢ | \$395 | (1384 | - 394 | ${ }_{\text {\% }}^{5962}$ | ${ }^{8.772 \%}$ | \% $9.18 \%$ | ${ }_{58}$ |
| 2018 | 75 | 5373 | 5355 | 58 | ${ }_{\text {sc8as }}$ | $8.72 \%$ | 10.16\% | ${ }_{5}$ |
| ${ }_{20 \times 5}$ | 873 | \$362 | 5337 | :7 | \%499 | $8.72 \%$ | 10.18\% | $8{ }^{3}$ |
| 2021 | 37 | 3352 | 5329 | 572 | \$885 | $8.72 \%$ | 10.10\% | 87 |
| 2022 | 88 | \$442 | 5354 | 56 | \%782 | ${ }_{8,72 \%}$ | 10,10\% | ${ }^{2}$ |
| 2023 | s89 | \$332 | \$238 | sea | 5750 | 8,72\% | 10.20\% | 8 |
| 2024 | 565 | 5322 | 5273 | \$5e | 5719 | 8.72\% | \% 0.105 | 85 |
| 2025 | se3 | 5313 | \$258 | 855 | 8890 | 8.72\% | 10.65\% | 56 |
| 2026 | set | s3a4 | \$284 | 351 | 8682 | 8,72\% | $10.10 \%$ | ${ }_{8}$ |
| 2027 | 859 | s298 | \$233 | 548 | 5835 | 8.72\% | 10.16\% | s |
| 2888 | 35 | 8386 | 3221 | 845 | 5008 | $8.72 \%$ | 1018\% | ss |


| Incremental Customer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 3534 | 8 | 2 | 8ng 7 | 5.88 |
|  | Montry | Amus | Saila 7 termp to | Hrual Ratio | Aspuay | Ratie Twems to | Anmuaia Rato | Toual bx-emeratal |
| Yage | Aamims | Adm. Cas | Toma Consured | Atm Cost | ${ }_{\text {oxacost }}$ | Tatar Consmes | OsM Cos | Aam BCOMCE |
| 2003 | 31.188 | ${ }^{324}$ | 1906\% | 32.44 | ${ }^{161 / 3}$ | 10.19\% |  |  |
| 290 | \$2.06 | ${ }^{2} 2$ | 90.10\% | \$2.4 | 389.32 | 10.6\% | 82 | ${ }^{3}$ |
| 2091 | \$2.02 | \% 2 | 10 18\% | \$2.14 | \$8951 | 40.15\% | 3 | ${ }_{4}$ |
| 2012 | \$2.384 | s2\% | 10.16\% | \$2.44 | 519.71 | 20,36\% | 52 | s |
| 2013 | 32\% | 325 | $10.18 \%$ | s2.54 | strat | 10.98\% | 52 | 85 |
| ${ }^{2934}$ | 32:38 | \$25 | $1018 \%$ | ${ }^{32} 254$ | sax: | 10. \%\% $^{\text {\% }}$ | 32 | ss |
| 2025 | \$2:10 | ${ }_{5} 2.5$ | 10.19\% | 52.54 | 520.34 | 10, $16 \%$ | \$2 | * |
| 2085 | 32.12 | ${ }^{3} 3$ | 1026\% | \$354 | s20.5? | 20.6\% | 32 | 35 |
| 2017 | 52.14 | sze | 10.16\% | \$2.84 | 320.72 | 40.188 | s2 | ss |
| 2018 | 32.17 | 525 | 10.18\% | \$2.84 | :2208 | 10.6\% | 32 | 85 |
| 2018 | 52,30 | ${ }_{526}$ | 10.15\%\% | s2:54 | 52:13 | 10.10\% | 52 | s |
| 2020 | s2:21 | ${ }^{327}$ | 1018\% | 32.74 | ${ }^{521}$ | ${ }^{1016.6 \%}$ | \$2 | \$8 |
| 2024 | 5238 | ${ }^{527}$ | vism | ${ }^{32} 274$ | ${ }^{321.58}$ | 10.60\% | *2 | 85 |
| ${ }_{2023}^{2029}$ | 52.25 |  | 8 | \$274 | 822.77 | 8.89\% | 52 | 85 |
| $\begin{array}{r}2023 \\ 2024 \\ \hline 0\end{array}$ |  | (127 | (10.16\% | 堅2.74 | 327.99 | 10.19\%\% | \$2 |  |
| ${ }_{2025}$ | ${ }_{5}^{1823}$ | ( | (10.18\%\% | S2848 | (ix |  | (32 | \%s |
| 2028 | 32.34 | ${ }^{2} 8$ | 10 086 | 32.84 | 322 ¢n | 1010\%\% | 32 | *5 |
| 2023 | s2,3 | s28 | 10.154 | s2me | s22.88 | 10.65\% | $s 2$ | ${ }^{5}$ |
| 2028 | 52.39 | 529 | 10.6\%\% | 52.85 | 523.14 | tion | 家 | 5 |


| cas Coss |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Themems | Commotay Gas | Gwas Spply |
| Yas |  | Supatrcose |  |
| 20068 | ${ }^{4}$ | ${ }^{1.2533}$ | ${ }^{366}$ |
| 200 | 45 | 8. 2.2588 | ${ }^{357}$ |
| ${ }^{2094}$ | ${ }_{45}^{4}$ | \$1.2785 | \% 88 |
| 2012 | ${ }^{4} 5$ | \$1.2913 | ${ }^{385}$ |
| 2013 | ${ }^{45}$ | 81,3042 | 558 |
| 2 mm | 45 | 813772 | ${ }^{258}$ |
| 209\% | ${ }_{4}^{4.5}$ | 51.3384 | ${ }_{860}$ |
| 2 ata | 4 | \$13837 | ${ }^{688}$ |
| 2097 | ${ }_{4}^{4}$ | \$13578 | ${ }^{581}$ |
| 2018 | 15 | 8. 3789 | se2 |
| 2919 | 45 | \$1.354 | ${ }^{362}$ |
| ${ }^{2020}$ | 45 | ¢ ${ }_{\text {s }}$ | ¢88 |
| 2022 | ${ }_{45}^{4.5}$ | S: 42724 | \%60 |
| 2023 | S |  | ${ }_{568}$ |
| 2023 2026 | ${ }_{4}{ }^{4}$ | ${ }^{5}$ | ${ }_{505}^{565}$ |
| 2325 | ${ }_{45}$ | \$14598 | 866 |
| 2026 | 45 | \$14843 | 567 |
| 2027 | 45 | 514.491 | 887 |
| 2035 | 45 | 515141 | 888 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Storage Tank Water Heating |



Peoples Gas System - AGDF Energy Conservation Filing 2009
Residentlal Propane Distribution System Conversion Program
Participants Test - Data

| Appliance Type |
| :---: |
| Storage Tank Water Heating |


| Eceaterton Rutay |  | LP Deilmargion Rate | 0.0\% |
| :---: | :---: | :---: | :---: |
| OSM Experse | 10\% | NGG Fuel Rete | 10\% |
| $\mathrm{LP}^{\text {Foud Cost }}$ | 1.0\% | NG Reve Retas | 0.0\% |


| Propane Cost. Table 1 |  |  |  |  | Natural Oas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Coutper Callions | Annuak | Tax Rat | Propane Cocet | Yex | Cout Per Them | Anrum | Tax Reter | NG Cont |
| A | - | $c$ | D | B.c(1+0) | A | B | c | 0 | Brcy |
| 2008 | \$2.5480 | 18 | 7.5\% | \%sas | 2009 | \$12533 | 170 | 10\% | 324, |
| 2010 | \$2.3833 | 180 | 7.5\% | \%s09 | 2010 | \$1.2858 | 170 | 10\% | \$237 |
| 2011 | \$2.5605 | 186 | 7.5\% | \$514 | 2014 | \$1.2785 | 470 | 10\% | \$238 |
| 2012 | \$2.5678 | 188 | 7.5\% | \$512 | 2012 | \$1.2913 | 170 | 10\% | \$201 |
| 2043 | \$2.5750 | ${ }_{186}$ | 7.5\% | 5614 | 2013 | \$1.3042 | 170 | 10\% | \$244 |
| 2044 | \$2.3823 | 188 | 7.5\% | \$615 | 2014 | \$1.3172 | 170 | 10\% | \$246 |
| 2015 | \$2.5896 | 186 | 7.5\% | \$017 | 2015 | 31.334 | 170 | 10\% | S249 |
| 2016 | \$2.5888 | ${ }_{188}$ | 7.5\% | *518 | 2016 | \$1.3437 | 470 | 10\% | 3251 |
| 2017 | \$2.5041 | 186 | 7.5\% | 8619 | 2017 | \$1,3571 | 170 | 10\% | 5834 |
| 2018 | \$2.6113 | 188 | 7.5\% | 8529 | 2018 | \$1.3707 | 170 | 10\% | \$256 |
| 2019 | \$2.8156 | 188 | 7.5\% | \$622 | 2019 | \$1.3844 | 170 | 10\% | \$269 |
| 2020 | \$2.6259 | 186 | 7.5\% | 5524 | 2020 | \$1.3883 | 170 | 10\% | \$201 |
| 2021 | \$2.6331 | 160 | 7.5\% | 3545 | 2021 | \$1.4122 | 170 | 10\% | 8204 |
| 2023 | 52.6404 | 106 | 7.3\% | \$677 | 2022 | 31,4284 | 170 | 10\% | 12067 |
| 2023 | \$2.8478 | ${ }^{188}$ | 7.5\% | \$689 | 2023 | \$1.4400 | 170 | 10\% | 320 |
| 2024 | \$2.6549 | 188 | 7.5\% | \$830 | 2024 | \$1.4550 | 170 | 10\% | *272 |
| 2035 | \$2.8022 | 196 | 7.5\% | 6531 | 2025 | 81.4896 | 170 | 10\% | 5275 |
| 2028 | \$2.0094 | 186 | 7.5\% | 3639 | 2026 | 31.4843 | 170 | 10\% | 3278 |
| 2027 | \$2.6767 | 186 | 7.5\% |  | 2027 | \$1.4991 | 170 | 10\% | \$280 |
| 2028 | \$2.6839 | 186 | 7.5\% | \$885 | 2028 | \$1.514 | 170 | \$0\% | 3283 |


| Natural Ons Energy Charge - Table 3 |  |  |  |  | Natural Oas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| צ** | $\begin{aligned} & \mathrm{Ramemer}_{\text {Therm }} \end{aligned}$ | Annual therns | Tax Rat | nG Cost | Year | Monthy Cuakrower | $\begin{aligned} & \text { Annual } \\ & \text { Customer } \\ & \text { Cmuryer } \end{aligned}$ | $\begin{aligned} & \text { Appplanceal } \\ & \text { Annual } \\ & \text { Thorime } \end{aligned}$ | Tocta Annuat Therm: | $\begin{aligned} & \text { Reation } \\ & \text { Appliance to } \\ & \text { Totai } \end{aligned}$ | Tax Raite | $\begin{aligned} & \text { Pro-Rumad } \\ & \text { Custromer Charaed } \end{aligned}$ |
| A | 8 | $c$ | D |  | A | - | 0 | D | E | DE | 6 |  |
| 2009 | \$0.4147 | 170 | 10\% | 57 | 2009 | \$10.00 | \$120.00 | 170 | 44 | 38.37\% | 10\% | \$1 |
| 2010 | \$0.4147 | 170 | 10\% | 578 | 2010 | \$10.00 | \$120.00 | 170 | 43 | 38.37\% | \%0\% | * 6 |
| 2011 | 50.4147 | 170 | 10\% | 578 | 2011 | \$10.00 | \$120.00 | 770 | 44 | 30.37\% | 10\% | * 51 |
| 2042 | \$0.4147 | 170 | $10 \%$ | 578 | 2012 | \$10.00 | \$120.00 | 170 | 43 | 38.37\% | 10\% | \$ 51 |
| 2043 | 50.4147 | 170 | 10\% | 18 | 2013 | \$10.00 | \$120.00 | 170 | 44 | 36.37\% | 10\% | * 61 |
| 2014 | 50.414 | 170 | 10\% | 378 | 2014 | \$19.00 | \$120.00 | 170 | 443 | 38.37\% | 10\% | \$51 |
| 2015 | S0.447 | 170 | 10\% | s79 | 2015 | \$10.00 | \$120.00 | 179 | 43 | 36.37\% | 10\% | 61 |
| 2016 | \$0.4147 | 170 | 10\% | \$79 | 2018 | \$10.00 | \$129.00 | 170 | 43 | 3837\% | 10\% | 831 |
| 2017 | 50.4147 | 170 | 10\% | \$78 | 2017 | \$10.00 | \$120.00 | 170 | 43 | 38.37\% | 10\% | \$1 |
| 2018 | \$0.4147 | 170 | 10\% | \$79 | 2018 | \$10.00 | \$120.00 | 170 | 443 | 38.37\% | 10\% | 801 |
| 2019 | 50.4147 | 170 | 10\% | \%7 | 2019 | \$10.00 | \$120.00 | 170 | 44 | 38.37\% | 10\% | \$81 |
| 2020 | 50.4147 | 170 | 10\% | 878 | 2020 | \$10.00 | \$420.00 | 170 | 443 | 36.37\% | 10\% | * 61 |
| 2021 | 50.414 | 170 | 10\% | 878 | 2021 | \$10.00 | 8120.00 | 170 | 443 | 36.37\% | 10\% | * 61 |
| 2022 | S0.4147 | 170 | 10\% | 878 | 2022 | \$10.00 | \$120.00 | 170 | 443 | 38.37\% | 10\% | 851 |
| 2023 | \$0.4147 | 470 | 10\% | 879 | 2023 | \$10.00 | \$120.00 | 170 | 44 | 36.37\% | 10\% | 561 |
| 2004 | \$0,4147 | 170 | 10\% | \$7a | 2024 | \$10.00 | \$120.00 | 170 | 43 | 38.37\% | 10\% | 481 |
| 2025 | 50.4147 | 170 | 10\% | *7 | 2025 | \$10.00 | \$120.00 | 170 | 43 | 38.37\% | 10\% | 261 |
| 2028 | 50.4147 | 170 | 10\% | \$79 | 2028 | \$10.00 | \$120.00 | 170 | 44 | 38.37\% | 10\% | 401 |
| 2027 | 50.4147 | 170 | 10\% | \$78 | 2027 | \$10.00 | \$120.00 | 170 | 43 | 36.3\%\% | 10\% | 51 |
| 2028 | 50.4447 | 170 | 10\% | 878 | 2028 | 310.00 | \$120.00 | 170 | 43 | 36.37\% | 10\% | 351 |

Peoples Gas System - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Tankless Water Heating |


|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided <br> Propane Cost | NG Rebate | Avoided Propane Appliance O8M | total benerits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Instalation Cost | NG Conversion Cost | $\begin{aligned} & \text { NG Appliance O } \\ & \text { \& M } \end{aligned}$ | NG Supply Cost | NG Energy Charge | NG Customer Charge | total costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thrue 6 | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$448 | \$450 | \$60 | \$858 | \$0 | \$0 | \$0 | \$100 | \$60 | \$207 | \$68 | \$47 | \$482 |
| 2010 | 2 | \$449 | 0 | \$61 | \$510 | 0 | \$0 | 0 |  | \$61 | \$209 | \$68 | \$47 | \$385 |
| 2011 | 3 | \$451 | 0 | \$61 | \$512 | 0 | \$0 | 0 |  | \$61 | \$211 | \$68 | \$47 | \$387 |
| 2012 | 4 | \$452 | 0 | \$62 | \$514 | 0 | \$0 | 0 |  | \$62 | \$213 | \$68 | \$47 | \$390 |
| 2013 | 5 | \$453 | 0 | \$62 | \$518 | 0 | \$0 | 0 |  | \$62 | \$215 | \$68 | \$47 | \$393 |
| 2014 | 6 | \$455 | 0 | \$63 | \$518 | 0 | \$0 | 0 |  | \$63 | \$217 | \$68 | \$47 | \$396 |
| 2015 | 7 | \$456 | 0 | \$64 | \$520 | 0 | \$0 | 0 |  | \$64 | \$220 | \$68 | \$47 | \$398 |
| 2016 | 8 | \$457 | 0 | \$64 | \$521 | 0 | \$0 | 0 |  | \$64 | \$222 | \$68 | \$47 | \$404 |
| 2017 | 9 | \$458 | 0 | \$65 | \$523 | 0 | \$0 | 0 |  | \$65 | \$224 | \$68 | \$47 | $\$ 404$ |
| 2018 | 10 | \$460 | 0 | \$66 | \$525 | 0 | \$0 | 0 |  | \$66 | \$226 | \$68 | \$47 | 5407 |
| 2019 | 11 | \$461 | 0 | \$66 | \$527 | 0 | \$0 | 0 |  | \$66 | \$228 | \$68 | \$47 | \$410 |
| 2020 | 12 | \$462 | 0 | \$67 | \$629 | 0 | \$0 | 0 |  | \$67 | \$231 | \$68 | \$47 | \$413 |
| 2021 | 13 | \$463 | 0 | \$68 | \$634 | 0 | \$0 | 0 |  | \$68 | \$233 | \$68 | \$47 | $\$ 446$ |
| 2022 | 14 | \$465 | 0 | \$68 | \$533 | 0 | \$0 | 0 |  | \$68 | \$235 | \$68 | \$47 | \$419 |
| 2023 | 15 | \$466 | 0 | \$69 | \$535 | 0 | \$0 | 0 |  | \$69 | \$238 | \$68 | \$47 | \$422 |
| 2024 | 16 | \$467 | 0 | \$70 | \$837 | 0 | \$0 | 0 |  | \$70 | \$240 | \$68 | \$47 | \$425 |
| 2025 | 17 | \$469 | 0 | \$70 | \$539 | 0 | \$0 | 0 |  | \$70 | \$242 | \$68 | \$47 | \$428 |
| 2026 | 18 | \$470 | 0 | \$71 | \$641 | 0 | \$0 | 0 |  | \$71 | \$245 | \$68 | \$47 | \$431 |
| 2027 | 19 | \$471 | 0 | \$72 | * 643 | 0 | \$0 | 0 |  | \$72 | \$247 | \$68 | \$47 | \$434 |
| 2028 | 20 | \$472 | 450 | \$72 | \$895 | 1,219 | (\$1,746) | 527 |  | \$72 | \$250 | \$68 | \$47 | \$438 |
|  |  |  |  | Present Value of Beneftis | \$5,634 |  |  |  |  |  |  | Present Vatue of Costs |  | \$4,038 |
|  |  |  |  |  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.40 |

Peoples Gas System - AGDF Energy Conservation Filing 2009
Residentlal Propane Distribution System Conversion Program Participants Test - Data

| Appliance Type |
| :---: |
| Tankless Water Heating |


| Exalation Ratoa |  | LP Devmargon Rata | 0.0\% |
| :---: | :---: | :---: | :---: |
| OSM Expenea | 1.0\% | NG Fumer Rete | 1.0\% |
| $\square_{\text {LP Fued Coxt }}$ | 1.0\% | NG Base Ratea | 0.08 |


| Propane Cost-Table 1 |  |  |  |  | Natuer Gas Supply Coat - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yerr | $\begin{gathered} \text { Cost Peor } \\ \text { Galion } \end{gathered}$ | Andurel Gallont |  | Propane Cout | Y mar | Cont Per | Annual Therms | Tax Rumb | Naccost |
| A | 8 | 0 | 0 | $\mathrm{Br}^{\circ} \mathrm{C}(1+0)$ | A | B | c | 0 | Brectiob) |
| 2008 | \$2.3460 | 184 | 7.5\% | 448 | 2009 | \$1.2533 | 150 | 10\% | *207 |
| 2010 | \$2.5533 | 164 | 7.5\% | 449 | 2010 | \$1.2859 | 150 | 10\% | \$209 |
| 2041 | \$2.3605 | 164 | 7.5\% | 461 | 2017 | \$1.2785 | 150 | 10\% | \$214 |
| 2012 | \$2.5678 | 164 | 7.5\% | 448 | 2012 | \$1.2913 | 150 | 10\% | 8213 |
| 2013 | 52.5750 | 184 | 7.5\% | 43 | 2013 | \$1.3042 | 150 | 10\% | 5245 |
| 2014 | \$2.5823 | 164 | 7.5\% | H65 | 2014 | \$1.3172 | 150 | 10\% | * 217 |
| 2045 | \$2.5898 | 154 | 7.5\% | Heso | 2015 | \$1.3304 | 150 | 10\% | *220 |
| 2018 | \$2.5969 | 164 | 7.9\% | 54.7 | 2016 | \$1,3437 | 150 | 10\% | *222 |
| 2017 | \$2.004 | 164 | 7.5\% | \%6s | 2017 | \$1.3571 | 150 | 10\% | 1224 |
| 2018 | \$2.6113 | 164 | 7.5\% | \$460 | 2018 | \$1.3707 | 150 | 10\% | \$228 |
| 20\%9 | \$2.8186 | 164 | 7.5\% | 431 | 2019 | \$1.3644 | 150 | 10\% | 3288 |
| 2020 | \$2.0259 | 164 | 7.5\% | 1462 | 2020 | 31.3983 | 150 | 10\% | 3231 |
| 2021 | \$2.8331 | 164 | 7.5\% | \$483 | 2024 | \$1.4122 | 150 | 10\% | 5233 |
| 2022 | \$2.6404 | 154 | 7.5\% | vas | 2022 | \$1.4884 | 150 | 10\% | *235 |
| 2023 | \$28476 | 164 | 7.5\% | 445 | 2023 | \$1.4400 | 150 | 10\% | 8239 |
| 2084 | \$2.6549 | 164 | 7.5\% | 1407 | 2024 | \$1.4550 | 150 | 10\% | 5210 |
| 2025 | 32.6622 | 184 | 7.5\% | 449 | 2025 | \$1.4998 | 150 | 10\% | 4212 |
| 2026 | \$2.8594 | 164 | 7.5\% | H70 | 2028 | \$1.4843 | 150 | 10\% | 5245 |
| 2027 | 32.8787 | 184 | 7.5\% | H71 | 2027 | \$1.4991 | 150 | 10\% | \$247 |
| 2028 | \$2.6839 | 164 | 7.5\% | \$472 | 2028 | \$1.5141 | 150 | 10\% | \$280 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rawn Por Them | Annum! Therms | Tax Rato | Nacost |
| A | $B$ | c | 0 | Brach |
| 2003 | \$0.4147 | 150 | 10\% | *88 |
| 2010 | \$5.4447 | 150 | 10\% | 588 |
| 2011 | \$0.4147 | 150 | 10\% | 48 |
| 2012 | \$0.4147 | 150 | 10\% | 58 |
| 2043 | \$0.444 | 150 | 10\% | *88 |
| 2014 | \$0.444 | 150 | 10\% | ${ }_{50}$ |
| 2045 | 30.4447 | 150 | 10\% | * |
| 2016 | \$0.1447 | 150 | 10\% | 5ab |
| 2017 | 30.444 | 150 | 10\% | * |
| 2018 | \$0.4:47 | 150 | 10\% | 588 |
| 2019 | \$0.4147 | 150 | 10\% | 54 |
| 2020 | \$0.4147 | 150 | 10\% | sea |
| 2021 | S0.444 | 150 | 10\% | \$88 |
| 2022 | \$0.4447 | 150 | 10\% | 跲 |
| 2023 | 30.444 | 150 | 10\% | * ${ }_{\text {\% }}$ |
| 2024 | 50.4147 | 150 | 10\% | ** |
| 2025 | 30.4447 | 150 | 10\% | ** |
| 2026 | \$0.4147 | 150 | 10\% | 58 |
| 2027 | \$0.4447 | 150 | 10\% | * |
| 2028 | \$0.4147 | 150 | 10\% | 568 |


| Natural Gas Customer Charge - Tabla 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $Y_{\text {var }}$ | Wontaly cunatarnar Charge | $\begin{gathered} \text { Annua! } \\ \text { Cuntomer } \\ \text { Charge } \end{gathered}$ | Applance Thenas | Toun Annual Thumess | Nailo: Appilances to Totwal | Tax Ram | Pro-Rufind Chinge |
| A | B | c | 0 | $E$ | DE | G | Criofer |
| 2009 | \$10.00 | \$120.00 | :50 | 423 | 35.46\% | 10\% | 44 |
| 2010 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | \$47 |
| 2011 | \$10.00 | \$120.00 | 450 | 423 | 35.45\% | 10\% | 947 |
| 2012 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | \$47 |
| 2013 | \$10.00 | \$120.00 | 150 | 43 | 35.46\% | 10\% | 47 |
| 2014 | \$10.00 | \$120.00 | 150 | 423 | 35.48\% | 10\% | 4 |
| 2015 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 47 |
| 2016 | \$10.00 | \$120.00 | 150 | 43 | 35.46\% | 10\% | 4 |
| 2017 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 47 |
| 2010 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 547 |
| 2018 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 447 |
| 2020 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 47 |
| 2021 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 47 |
| 2022 | \$10.00 | \$120.00 | 150 | 423 | 35.45\% | 10\% | 347 |
| 2023 | \$10.00 | \$12000 | 130 | 423 | 35.40\% | 10\% | 44 |
| 2024 | \$10.00 | \$120.00 | 150 | 423 | 35.45\% | 10\% | 47 |
| 2025 | \$10.00 | \$120.00 | 150 | 423 | 35.40\% | 10\% | * 7 |
| 2025 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 47 |
| 2027 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 47 |
| 2028 | \$10.00 | \$120.00 | 150 | 423 | 35.46\% | 10\% | 54 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |


|  |  | Benefits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance O\&N | total benefits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | $\begin{aligned} & \text { NG Appliance O } \\ & \& M \end{aligned}$ | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$532 | \$350 | \$270 | \$1,152 | \$0 | 0 | \$0 | \$100 | \$270 | \$245 | \$81 | \$53 | \$750 |
| 2010 | 2 | \$533 | 0 | \$273 | \$808 | 0 | 0 | 0 |  | \$273 | \$248 | \$81 | \$53 | \$655 |
| 2011 | 3 | \$535 | 0 | \$275 | \$840 | 0 | 0 | 0 |  | \$275 | \$250 | \$81 | \$53 | \$860 |
| 2012 | 4 | \$538 | 0 | \$278 | \$815 | 0 | 0 | 0 |  | \$278 | \$253 | \$81 | \$53 | \$685 |
| 2013 | 5 | \$538 | 0 | \$281 | \$819 | 0 | 0 | 0 |  | \$281 | \$255 | \$81 | \$53 | \$671 |
| 2014 | 6 | \$539 | 0 | \$284 | \$823 | 0 | 0 | 0 |  | \$284 | \$258 | \$81 | \$53 | \$676 |
| 2015 | 7 | \$541 | 0 | \$287 | \$828 | 0 | 0 | 0 |  | \$287 | \$260 | $\$ 81$ | \$53 | \$881 |
| 2016 | 8 | \$542 | 0 | \$289 | \$832 | 0 | 0 | 0 |  | \$289 | \$263 | \$ 1 | \$53 | \$887 |
| 2017 | 9 | \$544 | 0 | \$292 | \$836 | 0 | 0 | 0 |  | \$292 | \$266 | \$81 | \$53 | \$692 |
| 2018 | 10 | \$545 | 0 | \$295 | \$841 | 0 | 0 | 0 |  | \$295 | \$288 | \$81 | \$53 | \$698 |
| 2019 | 11 | \$547 | 0 | \$298 | \$845 | 0 | 0 | 0 |  | \$298 | \$271 | \$81 | \$53 | \$704 |
| 2020 | 12 | \$548 | 0 | \$301 | \$850 | 0 | 0 | 0 |  | \$301 | \$274 | $\$ 81$ | \$53 | \$709 |
| 2021 | 13 | \$550 | 0 | \$304 | \$884 | 0 | 0 | 0 |  | \$304 | \$277 | \$81 | \$53 | \$745 |
| 2022 | 14 | \$552 | 0 | \$307 | \$869 | 0 | 0 | 0 |  | \$307 | \$279 | \$81 | \$53 | \$721 |
| 2023 | 15 | \$553 | 0 | \$310 | \$863 | 0 | 0 | 0 |  | \$310 | \$282 | \$81 | \$53 | \$727 |
| 2024 | 16 | \$555 | 0 | \$313 | \$868 | 0 | 0 | 0 |  | \$313 | \$285 | \$81 | \$53 | \$733 |
| 2025 | 17 | \$556 | 0 | \$317 | \$873 | 0 | 0 | 0 |  | 5317 | \$288 | \$81 | \$53 | \$739 |
| 2026 | 18 | \$558 | 350 | \$320 | \$1,227 | 2,882 | $(4,657)$ | 1,775 |  | \$320 | \$291 | \$81 | \$53 | \$745 |
| 2027 | 19 | \$559 | 0 | \$323 | \$882 | 0 | 0 | 0 |  | $\$ 323$ | \$294 | \$81 | \$53 | \$754 |
| 2028 | 20 | \$561 | 0 | \$326 | \$887 | 0 | 0 | 0 |  | \$326 | \$296 | $\$ 81$ | \$53 | \$767 |
|  |  |  |  | Prosert Vaku of Beneftes | \$8,685 |  |  |  |  |  |  |  | resent Value Costs | \$6,846 |
|  |  |  |  |  |  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.25 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Data

| Appliance Type |  |  |
| :---: | :---: | :---: |
| Heating System |  |  |
| Exceltion Retan |  | LP Dolmascon Rato |
| Osm Expenea | 1.0\% | ng Fuel Rate |
| LP Fuy Cuas | 1.0\% | na Buee Rates |


| Propana Cost - Tabie 1 |  |  |  |  | Naturual Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| rear | Cost Per | Ammu: askions | Tax Rata | Propene Coss | Year |  | Annual Therm: | Tax Ruta | NG Cost |
| A | B | c | D |  | A | B | 0 | 0 | B-C\% $41+\mathrm{D}$ |
| 2008 | \$2.5460 | 194 | 7.5\% | ss32 | 2000 | \$1.2533 | ${ }^{78}$ | 10\% | 5245 |
| 2010 | \$2.5633 | 184 | 7.5\% | 853 | 2010 | \$1.2858 | 178 | 10\% | \$208 |
| 2011 | \$25605 | 194 | 7.5\% | 8183 | 2011 | \$1.2785 | ${ }^{178}$ | 10\% | 5250 |
| 2012 | \$2.5878 | 194 | 7.3\% | \$836 | 2092 | 31.2013 | 178 | 10\% | \$239 |
| 20:3 | \$2.5750 | 194 | 7.5\% | \$538 | 2043 | 51.3042 | 178 | 10\% | \$258 |
| 2014 | \$2.5823 | 19 | 7.5\% | 838 | 2014 | \$1,3172 | 178 | 10\% | \$258 |
| 2015 | \$2.5896 | 194 | 7.5\% | 18.1 | 2045 | \$1.3394 | 178 | 10\% | 3280 |
| 2018 | \$2.5058 | 184 | 7.5\% | *sta | 2018 | \$1.3437 | 178 | 10\% | \$283 |
| 2017 | \$2.50~ 5 | 194 | 7.5\% | 5844 | 2017 | \$1.3571 | 178 | 10\% | 4286 |
| 2018 | \$2.6113 | 194 | 7.5\% | 854 | 2078 | \$1.3707 | 178 | 10\% | 3268 |
| 2019 | \$2.6786 | 194 | 7.5\% |  | 2019 | 31.384 | 178 | 10\% | 4271 |
| 2020 | \$2.2250 | 194 | 7.5\% | 148 | 2020 | \$1.3883 | 178 | 10\% | \$274 |
| 2021 | \$2.8334 | 194 | 7.5\% | asco | 2021 | \$1.4122 | 178 | 10\% | 327 |
| 2022 | \$2.6404 | 194 | 7.5\% | 8682 | 2022 | \$1.4284 | ${ }^{78}$ | 10\% | 5278 |
| 2023 | \$2.6478 | 194 | 7.3\% | 8663 | 2023 | \$1.4608 | 178 | 10\% | 3282 |
| 2024 | \$2.8549 | 194 | 7.5\% | \$030 | 2024 | \$1,4550 | 178 | 10\% | \$288 |
| 2025 | \$2.6852 | 194 | 75\% | \% | 2025 | \$1,4608 | 478 | 10\% | \$289 |
| 2026 | \$2.6889 | 194 | 7.5\% | *588 | 2025 | \$1.4843 | 178 | 10\% | \$281 |
| 2027 | \$2.8767 | 194 | 7.5\% | 8559 | 2027 | \$1.4991 | 178 | 10\% | \$294 |
| 2028 | \$2.6839 | 194 | 7.5\% | \$551 | 2028 | \$1.514 | 178 | 10\% | \$206 |


| Natural Oas Energy Charge - Table 3 |  |  |  |  | Natural Ons Custorner Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Reptepor Than | Annual | Tax Rate | Ne Coat | Year | monthly Churge | $\begin{aligned} & \text { Annusl } \\ & \text { Cuatorner } \\ & \text { Charge } \end{aligned}$ | Appitaxice Annuxal Thern | $\begin{aligned} & \text { Total } \\ & \text { Annual } \\ & \text { \#nerms } \end{aligned}$ | $\begin{aligned} & \text { Realio : } \\ & \text { Applianeat to } \\ & \text { Totem } \end{aligned}$ | Tax Reme | Profiterad Customer Cherge |
| A | B | $c$ | 0 | $\mathrm{BCO}(8+\mathrm{C})$ | A | 8 | c | D | E | DE | G | crover $1+2$ |
| 2008 | \$0.444 | 179 | 10\% | 34 | 2009 | \$10.00 | \$120.00 | 178 | 443 | 40.19\% | 10\% | \%35 |
| 2080 | \$0.4147 | 178 | 20\% | *81 | 2010 | \$10.00 | \$120.00 | 178 | 443 | 40.18\% | 10\% | sss |
| 2011 | 30.4147 | 178 | 10\% | 881 | 2014 | \$10.00 | \$120.00 | 178 | 443 | 40.18\% | 10\% | 183 |
| 2012 | \$0.4147 | 178 | 10\% | 81 | 2012 | \$10.00 | \$120.00 | 179 | 443 | 40.18\% | 10\% | 863 |
| 2013 | 30.4147 | 178 | 10\% | 81 | 2013 | \$1000 | \$120.00 | 178 | 44 | 40.18\% | 10\% | 563 |
| 2014 | \$0.4147 | 178 | 10\% | 881 | 2014 | \$10.00 | \$120.00 | 178 | 443 | 40.16\% | 10\% | 50 |
| 2015 | 30.4147 | 178 | 10\% | 881 | 2015 | \$10.00 | \$120.00 | 179 | 443 | 40.18\% | 10\% | 86 |
| 2066 | \$0.4147 | 176 | 10\% | \$81 | 2016 | \$10.00 | \$120.00 | 178 | 443 | 40.16\% | 50\% | *ss |
| 2017 | \$0.4147 | 178 | 10\% | 801 | 2017 | \$10.00 | \$120.00 | 178 | 443 | 40.18\% | 40\% | 65 |
| 208 | 50.4147 | 178 | 10\% | 881 | 2018 | \$10.00 | \$120.00 | 178 | 443 | 40.18\% | 10\% | 86 |
| 2019 | \$0.4147 | 178 | 10\% | 831 | 2019 | \$10.00 | \$120.00 | 178 | 443 | 40.16\% | 10\% | \$63 |
| 2020 | 30.4147 | 178 | 10\% | *81 | 2020 | \$10.00 | \$120.00 | 178 | 44 | 40.18\% | 10\% | 53 |
| 2021 | 50.4147 | 178 | 10\% | 81 | 2021 | \$10.00 | \$120.00 | 178 | 43 | 40.16\% | 10\% | 883 |
| 2022 | \$0.4147 | 178 | 10\% | 881 | 2022 | \$10.00 | \$120.00 | 178 | 443 | 40.19\% | 10\% | **3 |
| 2023 | \$0.4147 | 178 | 10\% | \$1 | 2023 | \$10.00 | \$120.00 | 178 | 443 | 40.18\% | 10\% | 4 |
| 2024 | 30.4147 | 178 | 10\% | 331 | 2024 | \$10.00 | \$120.00 | 178 | 443 | 40.10\% | 10\% | \$83 |
| 2025 | \$0.4447 | 178 | 20\% | 831 | 2025 | \$10.00 | \$120.00 | 473 | 443 | 40.18\% | 70\% | 963 |
| 2028 | \$0.4147 | 176 | 10\% | 81 | 2026 | \$10.00 | \$120.00 | 478 | 443 | 40.10\% | 10\% | 45 |
| 2027 | \$0.4147 | 174 | 10\% | 881 | 2027 | \$10.00 | \$120.00 | 178 | 443 | 40.19\% | 10\% | 863 |
| 2028 | \$0.4147 | 178 | 10\% | 581 | 2028 | \$10.00 | \$12000 | 178 | 443 | 40.18\% | \$0\% | \% 5 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Cooking |


|  |  | Boneflis |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance O8M | TOTAL BENEFITS | NG Equipment Cost | Propane Equipment ${ }^{\circ}$ Installation Cost | NG Instalation Cost | NG Conversion Cost | NG Applance 0 \& $M$ | NG Supply Cost | NG Energy Charge | NG Customer Charge | TOTAL costs |
|  |  | Table 1 |  |  |  |  |  |  |  |  | Table 2 | Table 3 | Table 4 |  |
| 1 | 2 | 3 | 4 | 5 | 3 thrue 6 | 7 | 8 | 9 |  | 10 | 11 | 12 | 13 | 7 thru 13 |
| 2009 | 1 | \$134 | \$100 | \$60 | \$294 | \$0 | \$0 | \$0 | \$100 | \$60 | \$62 | \$21 | \$13 | \$256 |
| 2010 | 2 | \$135 | 0 | \$61 | \$195 | 0 | \$0 | 0 |  | \$61 | \$63 | \$21 | $\$ 13$ | \$157 |
| 2011 | 3 | \$135 | 0 | \$61 | \$196 | 0 | $\$ 0$ | 0 |  | \$61 | $\$ 63$ | \$21 | $\$ 13$ | \$158 |
| 2012 | 4 | \$136 | 0 | \$62 | \$197 | 0 | $\$ 0$ | 0 |  | \$62 | \$64 | \$21 | \$13 | \$160 |
| 2013 | 5 | \$136 | 0 | \$62 | \$198 | 0 | \$0 | 0 |  | \$62 | \$65 | \$21 | \$13 | \$161 |
| 2014 | 6 | \$136 | 0 | \$63 | \$198 | 0 | \$0 | 0 |  | \$63 | \$85 | \$21 | \$13 | \$162 |
| 2015 | 7 | \$137 | 0 | \$64 | \$200 | 0 | \$0 | 0 |  | \$64 | \$66 | \$21 | \$13 | \$163 |
| 2016 | 8 | \$137 | 0 | \$64 | \$201 | 0 | \$0 | 0 |  | \$64 | \$67 | \$21 | \$13 | \$168 |
| 2017 | 9 | \$138 | 0 | \$65 | \$202 | 0 | \$0 | 0 |  | \$65 | \$67 | \$21 | \$13 | \$166 |
| 2018 | 10 | \$138 | 0 | \$66 | \$204 | 0 | \$0 | 0 |  | \$66 | \$68 | \$21 | \$13 | \$167 |
| 2019 | 11 | \$138 | 0 | \$66 | \$205 | 0 | \$0 | 0 |  | \$66 | \$69 | \$21 | \$13 | \$169 |
| 2020 | 12 | \$139 | 0 | \$67 | \$208 | 0 | \$0 | 0 |  | \$67 | \$69 | \$21 | \$13 | \$170 |
| 2021 | 13 | \$139 | 0 | \$68 | \$207 | 0 | \$0 | 0 |  | \$68 | \$70 | \$21 | \$13 | \$174 |
| 2022 | 14 | \$139 | 0 | \$68 | \$208 | 0 | $\$ 0$ | 0 |  | \$68 | \$71 | \$21 | \$13 | \$173 |
| 2023 | 15 | \$140 | 100 | \$69 | \$309 | 637 | (\$805) | 167 |  | \$69 | \$71 | \$21 | \$13 | \$174 |
| 2024 | 16 | \$140 | 0 | \$70 | \$210 | 0 | \$0 | 0 |  | \$70 | \$72 | \$21 | \$13 | \$176 |
| 2025 | 17 | \$141 | 0 | \$70 | \$211 | 0 | \$0 | 0 |  | \$70 | \$73 | \$21 | \$13 | \$177 |
| 2026 | 18 | \$141 | 0 | \$71 | \$212 | 0 | $\$ 0$ | 0 |  | \$71 | \$73 | \$21 | \$13 | \$178 |
| 2027 | 19 | \$141 | 0 | \$72 | \$213 | 0 | \$0 | 0 |  | \$72 | \$74 | \$21 | \$13 | \$180 |
| 2028 | 20 | \$142 | 0 | \$72 | \$214 | 0 | \$0 | 0 |  | \$72 | \$75 | \$21 | \$13 | \$181 |
|  |  |  |  | Prement Value of Benerits | \$2,103 |  |  |  |  |  |  |  | rusent Value Casts | \$1,713 |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Benefit/Cost } \\ \text { Ratio } \end{gathered}$ |  | 1.23 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Data

| Appliance Type |  |  |
| :---: | :---: | :---: |
| Cooking |  |  |
| Excelvion Rater |  | LP Demmargin Rate |
| Osm Experse | 1.0\%\% | NG Fumerate |
| ¢p prut cost | 1.0\% | no Bater |


| Prapane Cost-Table 1 |  |  |  |  | Natural Gas Supply Cost - Yabte 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | ContPer Gollion | Amual Batlon | Tax Ratm | Propene cour | vear | Cont Per Therm | Annuel Therms | Tax Retm | ng cosi |
| A | B | c | 0 | $\mathrm{s}^{+c}(1+0)$ | A | B | c | 0 | $\mathrm{B}^{+\mathrm{C}^{+}\left(1+{ }^{\text {d }} \text { ) }\right.}$ |
| 2009 | \$2.5480 | 49 | 7.5\% | 5134 | 2009 | \$1.2533 | 45 | 10\% | * |
| 2010 | \$2.5533 | 49 | 7.5\% | \$136 | 2010 | \$12858 | 45 | 10\% | ${ }^{63}$ |
| 2011 | \$2.5605 | 49 | 7.5\% | 4336 | 2019 | \$1.2785 | 45 | 10\% | 43 |
| 2012 | 32.5678 | 49 | 7.5\% | \$138 | 2012 | \$1.2813 | 45 | 10\% | st |
| 2013 | \$2.5750 | 49 | 7.5\% | 3136 | 2013 | \$1.3042 | 43 | 10\% | 885 |
| 2014 | \$2.5823 | 49 | 7.5\% | \$136 | 2014 | \$1.3172 | 45 | 10\% | *5 |
| 2015 | \$2.5906 | 49 | 7.5\% | 3137 | 2015 | \$1.3304 | 45 | 10\% | 848 |
| 2018 | \$2.5968 | 49 | 7.5\% | 8137 | 2015 | \$1.3437 | 45 | 10\% | 59 |
| 2017 | \$2.0041 | 49 | 7.5\% | \$138 | 2017 | \$1,3571 | 45 | 10\% | 867 |
| 2018 | \$2.8113 | 49 | 7.5\% | \$138 | 2018 | \$1.3707 | 45 | 10\% | * |
| 2019 | \$2.8185 | 49 | 7.5\% | 5139 | 2019 | 51.3844 | 45 | 10\% | \$69 |
| 2020 | \$2.6259 | 49 | 7.5\% | \$139 | 2000 | \$1.3983 | 45 | 10\% | 58 |
| 2021 | \$2.6334 | 42 | 7.5\% | 8139 | 2024 | 41.4122 | 45 | 10\% | \$70 |
| 2022 | \$2.6404 | 49 | 7.5\% | \$139 | 2022 | 31,4284 | 45 | 10\% | 571 |
| 2023 | \$28478 | 49 | 7.5\% | \$140 | 2023 | \$1.4496 | 45 | 10\% | \$71 |
| 2024 | \$2.8549 | 48 | 7.5\% | 3140 | 2024 | \$1.4550 | 45 | 10\% | \$72 |
| 2005 | \$2.8622 | 49 | 7.5\% | 141 | 2025 | \$1.6696 | 45 | 10\% | 373 |
| 2026 | \$2.8694 | 49 | 7.5\% | \$149 | 2028 | \$1.4843 | 45 | 10\% | 873 |
| 2027 | \$2.8787 | 49 | 7.5\% | \$141 | 2027 | \$1,4991 | 45 | 10\% | 874 |
| 2028 | \$2.6839 | 49 | 7.5\% | \$42 | 2028 | \$1.514 | 45 | 10\% | 178 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yem | Nube Per Thorim | Amitual Themat | TanReto | NG Cost |
| A | 日 | c | 0 | $\mathrm{B}^{+C}+(1+0)$ |
| 2009 | 50.147 | 45 | 10\% | 521 |
| 2050 | \$0.444 | 45 | 10\% | \$21 |
| 2011 | \$0.4147 | 45 | 10\% | 121 |
| 2012 | \$0.444 | 45 | 10\% | \$21 |
| 2013 | 20.4447 | 45 | 10\% | 521 |
| 2014 | \$0.4447 | 45 | 10\% | \$21 |
| 2015 | S0.414T | 45 | 10\% | \% |
| 2016 | 20.447 | 45 | 10\% | 221 |
| 2017 | \$0.4147 | 45 | 10\% | \$21 |
| 2018 | 20.4147 | 45 | 10\% | 521 |
| 2018 | 80.4147 | 45 | 10\% | 821 |
| 2020 | \$0.4147 | 45 | 10\% | 321 |
| 2021 | 80.4147 | 45 | $10 \%$ | \$21 |
| 2022 | \$0.4147 | 45 | 10\% | 521 |
| 2023 | \$0.4147 | 45 | 10\% | *21 |
| 2024 | \$0.4147 | 45 | 10\% | 821 |
| 2025 | \$0.4147 | 45 | 10\% | \$21 |
| 2026 | \$0.4147 | 45 | 10\% | \$21 |
| 2027 | 50.4147 | 45 | 10\% | 321 |
| 2028 | \$0.4147 | 45 | 10\% | 521 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Monthy } \\ & \text { Cuntrmer } \\ & \text { Chargen } \end{aligned}$ | $\begin{aligned} & \text { Annua! } \\ & \text { Cumbinve } \\ & \text { Chtingo } \end{aligned}$ | $\begin{aligned} & \text { Applilarcice } \\ & \text { Anvual } \\ & \text { nown } \end{aligned}$ | Toten Annual Thurma | $\begin{aligned} & \text { Ratio. } \\ & \text { Appitince to } \\ & \text { Totad } \end{aligned}$ | 7ax R | Proternd Cuntronem Change |
| A | $B$ | c | 0 | E | DE | 6 | C(Come $(1+2)$ |
| 2008 | \$10.00 | 5120.00 | 45 | 443 | 10.16\% | 10\% | $\$ 13$ |
| 2090 | \$10.00 | \$120.00 | 45 | 443 | 10.98\% | 10\% | \$13 |
| 2011 | \$10.00 | *120.00 | 45 | 443 | 10.16\% | 10\% | 513 |
| 2012 | \$10.00 | \$120.00 | 45 | 43 | 10.10\% | 10\% | 813 |
| 2013 | \$10.00 | \$120.00 | 45 | 443 | 10.6\% | 10\% | *13 |
| 2014 | \$10.00 | \$120.00 | 45 | 443 | 10.16\% | +0\% | \$13 |
| 2015 | \$10.00 | \$120.00 | 4 | 43 | 10.18\% | 10\% | \$13 |
| 2016 | \$00.00 | \$120.00 | 45 | 443 | 10.16\% | 10\% | \$13 |
| 2017 | \$10.00 | \$120.00 | 45 | 443 | 10.16\% | 10\% | 518 |
| 2018 | \$10.00 | \$120.00 | 45 | 443 | 10.16\% | 10\% | \$43 |
| 2019 | \$10.00 | \$120.00 | 45 | 43 | 10.16\% | 10\% | 313 |
| 2020 | \$10.00 | \$120,00 | 43 | 443 | 10.16\% | 10\% | 343 |
| 2021 | \$0.00 | \$120.00 | 45 | 443 | 10.16\% | 10\% | \$13 |
| 2022 | \$10.00 | \$120.00 | 45 | 443 | 10.10\% | 10\% | \$13 |
| 2023 | \$10.00 | \$120.00 | 45 | 44 | 10.16\% | 10\% | \$13 |
| 2024 | \$10.00 | \$120.00 | 45 | 43 | 10.16\% | 10\% | \$13 |
| 2025 | \$10.00 | \$120.00 | 45 | 44 | 10.16\% | 10\% | \$13 |
| 2028 | \$10.00 | \$120.00 | 45 | 443 | 10.18\% | 10\% | \$13 |
| 2027 | \$10.00 | \$120.00 | 45 | 443 | 10.18\% | 10\% | \$13 |
| 2028 | \$10.00 | \$120.00 | 45 | 43 | 10.46\% | 10\% | \$13 |

Peoples Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results



# Peoples Gas System - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program 

Participants Test - Data

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Clothes Drying |  |  |  |
| Ficalation Rexam |  | LP Dommeren Rato | 0.0\% |
| оим Eppme | 1.0\% | no Fuel Rate | 1.0\% |
| LPFimicoat | 1.0\% | Na Raman Rutes | 0.0\% |


| Propare Cost-tabie 1 |  |  |  |  | Natural Cas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Cost Per } \\ & \text { Oation } \end{aligned}$ | Arnimal Gations | rax Rate | Propane Cose | Year | cont por trerm | Annum Thanms | Tax Rath | NG Coast |
| A | 8 | $c$ | 0 | $\mathrm{B}^{\circ} \mathrm{C} \cdot(1+\mathrm{D})$ | A | 8 | $c$ | 0 | $80^{*} \times(1+D)$ |
| 2009 | \$2.4460 | 55 | 7.5\% | \$148 | 2004 | \$4.253 | 50 | 10\% | t6s |
| 2010 | \$2.5533 | 55 | 7.5\% | \$150 | 2010 | \$+2858 | 50 | 10\% | 870 |
| 2011 | \$2.5605 | 55 | 7.5\% | \$130 | 2011 | \$1.2795 | 50 | 10\% | 870 |
| 2012 | \$2567e | 55 | 7.5\% | \$151 | 2012 | \$1.2993 | 50 | 10\% | \$71 |
| 2013 | \$2.5750 | 55 | 7.5\% | \$151 | 2013 | \$1.3042 | 50 | 10\% | 872 |
| 2014 | \$2.5823 | 55 | 7.5\% | *182 | 2014 | \$1.3172 | 50 | 10\% | \$72 |
| 2015 | \$2.8898 | 55 | 7.5\% | \$132 | 2015 | \$1.3304 | 30 | 10\% | \$73 |
| 2016 | \$2.5988 | 5 | 7.5\% | \$182 | 2016 | \$1.3637 | 50 | 10\% | \$74 |
| 2017 | \$2.0041 | 55 | 7.5\% | \$183 | 2017 | \$1.3571 | 50 | 10\% | 478 |
| 2018 | $\mathbf{\$ 2 . 8 1 1 3}$ | 55 | 7.5\% | \$183 | 2016 | \$1.3707 | 50 | 10\% | \$78 |
| 2019 | \$2.6186 | 53 | 7.5\% | \$164 | 2019 | \$1.3844 | 50 | 10\% | 178 |
| 2020 | \$2.6259 | 5 | 7.5\% | 1154 | 2020 | \$1.3963 | 50 | 10\% | 37 |
| 2021 | \$2.5331 | ss | 7.5\% | \$134 | 2021 | \$1.442 | 50 | 10\% | \$78 |
| 2022 | \$26404 | 55 | 7.5\% | \$158 | 2022 | \$1.4264 | 50 | 10\% | 478 |
| 2023 | 52.5475 | 55 | 7.5\% | \$188 | 2023 | \$1,408 | 50 | 10\% | 578 |
| 2024 | \$2.6548 | 55 | 7.5\% | \$180 | 2024 | \$1.4550 | 50 | 10\% | * 80 |
| 2025 | \$2.6622 | 35 | 7.5\% | \$130 | 2025 | \$1.459\% | 50 | 10\% | \$ 81 |
| 2026 | \$2.6894 | 55 | 7.5\% | 3187 | 2026 | \$1.4843 | 50 | 10\% | 382 |
| 2027 | 52.8767 | 55 | 7.5\% | 815 | 2027 | \$1.4891 | 50 | 10\% | 58 |
| 2028 | \$2.8839 | 55 | 7.5\% | \$157 | 2028 | \$1.5141 | 50 | 10\% | 88 |


| Natural Gas Energy Charge . Table 3 |  |  |  |  | Natural Gas Customer Charge. Table 1 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { Rate Per } \\ \text { Therm } \end{gathered}$ | Antam Tharme | Tax Pate | NG Cost | Year | Montily Cuatomer Change | $\begin{gathered} \text { Annual } \\ \text { Cumbornor } \\ \text { Charge } \end{gathered}$ | Appriencte Annual Therms | Tratas Annu: Therm | $\begin{aligned} & \text { Ratto. } \\ & \text { Applance to } \\ & \text { Towis } \end{aligned}$ | Tax Rumatan | Pronded Cheres Charge |
| A | B | $c$ | D | $\mathrm{B}^{*} \mathrm{C}^{*}(1+\mathrm{O})$ | A | $B$ | c | D | E | OEE | 0 | CHEET1+2 |
| 2008 | S0.447 | 50 | 10\% | *23 | 2009 | \$10.00 | \$120.00 | 50 | 43 | 11.29\% | 10\% | *s |
| 2010 | \$0.4447 | 50 | 10\% | 123 | 2010 | \$10.00 | \$120.00 | 50 | 43 | 11.28\% | 10\% | \$18 |
| 2017 | 50.4147 | 50 | 10\% | 123 | 2011 | \$19.00 | \$120.00 | 50 | 43 | 11.7\%\% | 10\% | 315 |
| 2012 | \$0.4147 | 50 | 10\% | \$23 | 2092 | \$10.00 | \$20.00 | 50 | 443 | 11.2\%\% | 10\% | 148 |
| 2013 | \$0.4147 | 50 | 10\% | 823 | 2043 | \$10.00 | \$120.00 | 50 | 443 | 11.29\% | 10\% | 518 |
| 2014 | \$0.447 | 50 | 10\% | 523 | 2014 | \$10.00 | \$120.00 | 50 | 443 | 11.29\% | 10\% | 318 |
| 2015 | \$0.447 | 50 | 10\% | 82 | 2015 | \$10.00 | \$120.00 | 50 | 43 | 11.29\% | 10\% | \$18 |
| 2018 | 50.4147 | 50 | 10\% | *23 | 2018 | \$10.00 | \$120.00 | 50 | 43 | 11.28\% | 10\% | \$15 |
| 2017 | 50.4447 | 50 | 10\% | 82 | 2017 | \$10.00 | \$120.00 | 50 | 43 | 11.28\% | 10\% | \$18 |
| 2016 | \$0.4147 | 50 | 10\% | \$23 | 2018 | \$10.00 | \$120.00 | 50 | 43 | 11.28\% | 10\% | 18 |
| 2018 | \$0.1447 | 50 | 10\% | \%23 | 2018 | \$10.00 | \$120.00 | 50 | 43 | 11.29\% | 10\% | \$15 |
| 2020 | \$0.447 | 50 | 10\% | ${ }_{2} \mathbf{3}$ | 2020 | \$10.00 | \$120.00 | 50 | 43 | 11.2\%\% | 10\% | \$18 |
| 2021 | \$0.4447 | 50 | 10\% | 123 | 2021 | \$10.00 | \$120.00 | 50 | 43 | 11.29\% | 10\% | \$15 |
| 202 | \$0.447 | 50 | 10\% | *23 | 2022 | \$10.00 | \$120.00 | 30 | 43 | 11.28\% | 10\% | \$15 |
| 2023 | \$0.4147 | 50 | 10\% | 823 | 2023 | \$10.00 | \$120.00 | 50 | 44 | 11.20\% | 10\% | \$15 |
| 2024 | \$0.447 | 50 | 10\% | 823 | 2024 | \$10.00 | \$20000 | 50 | 43 | 11.29\% | 10\% | 515 |
| 2025 | 50.4147 | 50 | 10\% | 523 | 2025 | \$10.00 | \$120.00 | 50 | 43 | 11.29\% | 10\% | 518 |
| 2023 | \$0.444 | 50 | 10\% | \$23 | 2026 | \$10.00 | \$120.00 | 50 | 443 | 11.29\% | 10\% | 818 |
| 2027 | \$0.4447 | 50 | 10\% | 833 | 2027 | \$10.00 | \$120.00 | 50 | 43 | 11.29\% | 10\% | \$18 |
| 2028 | 50.4147 | 50 | 10\% | 523 | 2028 | \$10.00 | \$120.00 | 50 | 443 | 14.20\% | tow | 18 |

'M'J'd \%ol ${ }^{6}$
ELOOL JXN
 9zเs'ON depsoəy

## Attachment 2.6

Associated Gas Distributors of Florida
Energy Conservation Program Petition
Residential Propane Distribution System Conversion Program
March, 2009

Sebring Gas System
Rate Impact Measurement Test
Participants Test
Summary of RIM Test and Participants Test Results

|  | Proposed <br> Allowance |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Gas Storage Tank Water Heating | $\$ 350$ |  | 1.56 |  |
| Gas Tankless Water Heating | $\$ 450$ |  | 1.56 | 1.16 |
| Gas Heating | $\$ 350$ |  | 1.36 | 1.20 |
| Gas Clothes Drying | $\$ 100$ | 1.34 | 1.18 |  |
| Gas Cooking | $\$ 100$ | 1.33 | 1.17 |  |

## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

Appliance Type
Storage Tank Water Heating


# Sebring Gas System - AGDF Energy Conservation Filing 2009 

## Residential Propane Distribution System Conversion Program

Appliance Type
Slorage Tank Water Heating

|  |  |  |  | Daprociation Riato - Suppiy dibity Depraciztion Fute - Devobocment wisif Dapacistotion Rexte - Sarvice Line <br>  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tabs : |  |  |  | Tate +a |  |  |  | Trabe 2 |  |  |  |  |
| Reverup-Energy Charge |  |  |  | Revenue - Costof Gas $^{\text {a }}$ |  |  |  | Revenue - Customer Charge |  |  |  |  |
| 1 | 2 | 3 | -2 | 1 | 2 | 4 | 23 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | arnum ciumorre | Ratio Thames To Total | Froraio Ammuas |
| ${ }^{\text {20ase }}$ | ${ }^{7} 10$ | Bascisite |  | $\frac{\text { Year }}{2006}$ | $\frac{\text { Themis }}{173}$ |  | Triac chame | ${ }^{\text {Yaar }}$ | ${ }_{\text {chasa }}$ | ${ }_{\text {chers }}^{\text {chas }}$ | Consumef | Custamer charye |
| 2046 | 170 | 50.514 | ${ }_{587}$ | 2010 | 19 | Sextict | 3145 | ${ }_{2010}^{2008}$ | \$12.00 | t14.00 | ${ }^{36} 3.37 \%$ | sss |
| 204 | 170 | 50.5.514 | 587 | 2011 | 179 | ${ }^{508883}$ | \%150 | 2091 | \$12.00 | 8,44.00 | 3e.37\% | ${ }_{\text {sss }}$ |
| ${ }_{2012}^{2012}$ | 170 <br> 780 <br> 70 | - 50.514. | ${ }_{807} 88$ | 2012 | 476 | sabees | 3152 | 2042 |  | \$144.00 | 3637\% | ${ }^{355}$ |
| ${ }_{2014}^{2013}$ | 170 170 | ${ }^{50.5144}$ | ${ }_{\text {cki }}^{597}$ | ${ }_{2014}^{2013}$ | 178 1780 | (10.5009 |  | 2013 2014 | ${ }_{5}^{512006}$ | Stindion | ${ }_{38}^{30.37 \%}$ | s5s <br> ss5 <br> 85 |
| ${ }^{2015}$ | 370 |  | 587 | 2045 | 170 | 50, 19190 | 3148 | ${ }_{2015}$ | \$1200 | \$14,00 | 33, $37 \%$ | 555 |
| ${ }_{2017}^{2017}$ |  | - 30.514 | 887 | 2018 | 470 | 50.9822 | 1456 | ${ }^{2014}$ | \$1200 | 314.00 | 36.30\% | *s5 |
| ${ }_{2018}$ | 170 | 50.514 sos.14 | ${ }_{\substack{\text { s } \\ 887 \\ 887}}$ | ${ }_{2019}^{2017}$ | 770 <br> 770 | \$0.0375 | (168) | 2067 | \$12.00 | \$14,0, | 33, 3 3\%\% | \$55 |
| 2098 | 790 | ${ }^{50.514}$ | $8_{87}$ | 2016 | 170 | 50.9663 | :193 | 206 | +1200 | 5 54,00 | 33.336\% | \%55 |
| ${ }_{2020}^{2021}$ | 708 | ${ }_{\substack{5 \\ 50.514 \\ 80514}}$ | sis | 20\% | ${ }^{170}$ | 50.80 | sted | 2020 | \$2,00 | \$144.50 | 3e.33\% | ${ }^{85}$ |
| ${ }_{2022}^{2021}$ | 1700 | ${ }_{\substack{50.514 \\ 80.514 .4}}$ | 387 807 807 | ${ }_{2022}^{2021}$ | 170 170 |  | \$166 | ${ }_{2021}^{2021}$ | \$1209 |  | ${ }_{\text {cosem }}^{36.37 \%}$ | \$85 |
| 2023 | 770 | 50.554 | ${ }^{307}$ | 2023 | 170 | 50.0062 | ${ }_{3168}$ | 2022 <br> 2023 | ${ }_{512.00}$ | \$144.60 | 33, $37 \%$ | sss |
| ${ }_{2024}^{2024}$ | 170 | 50.514 | sa7 | 2024 | 470 | thasi | 3174 | ${ }^{2024}$ | \$12.00 | \$144.400 | 3037\% | sss |
| $\underbrace{2020}_{\substack{2025 \\ 2028}}$ | 170 |  | 887 <br> 587 <br> 88 | ${ }_{2025}^{2025}$ | ${ }^{170}$ | (tyme | \$173 | ${ }^{2025}$ | \$1200 | ${ }^{3144.40}$ | ${ }^{343} 38 \%$ | ${ }^{585}$ |
| 2027 | 170 | ${ }^{30.50,14}$ | ${ }_{58} 8$ | ${ }_{2027}^{2027}$ | ${ }_{170}$ | \$5.0359 | \$8174 | ${ }_{2027}$ | ${ }_{\substack{\text { a } \\ 5122000}}$ | ( | ${ }_{3}^{3637 \%}$ | ${ }_{85}$ |
| 2028 | 170 | \$05414 | 889 | 2028 | 170 | \$110459 | 3178 | 2828 | - 3 | \$14400 | 3933\% | ${ }_{585}$ |


| nevestment Garrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 678 |
|  | siputy | speesommet | Service |  | Totat | cost | Rato oft moms | 1 Invastment |
| ${ }_{\text {Y }}^{\text {Yasi }}$ | $\frac{\mathrm{mam}}{5100}$ | ${ }_{\text {man }}$ | 5 | Mater | Investrest | stobt | Onsmed To Tata | mancos |
| ${ }^{2009}$ | ${ }^{1000}$ | ${ }^{35950}$ | 8303 |  | 3,1,185 | 10.12\% | 38.37\% | 45 |
| 2010 | ${ }_{897}$ | 5489 | 5398 | ${ }^{\text {\% } 178}$ | St, 1 4e | 10.12\% | 33.37\% | ${ }_{4}$ |
| ${ }^{2011}$ | ${ }^{2}$ | \$472 | 5378 | 5179 | \$1,13 | 0122\% | 38.37\% | 43 |
| 2012 | ${ }^{39}$ | ${ }^{3458}$ | ${ }^{3365}$ | : 889 | S1.078 | 10.12\% | ${ }^{38,37 \%}$ | $\pm 2$ |
| 2013 | *s | stas | 5354 | 818 | \$1,944 | 10.25\% | 39.37\% |  |
| ${ }^{2014}$ | 888 | \$432 | 5334 | ${ }^{\text {x751 }}$ | \$1,011 | $10.12 \%$ | 33.37\% | 539 |
| 2015 | ${ }_{883}$ | 5419 | 5333 | ${ }^{3} 45$ | \%se | 10.12\% | 38.37\% | ${ }^{3} 3$ |
| ${ }_{2012}^{2016}$ | ${ }^{801}$ | 8497 | ${ }^{323}$ | 5138 | sess | 10.23\% | 39.37\% | ${ }^{337}$ |
| ${ }_{2017}^{2017}$ | ${ }^{379}$ | 8395 | 313 |  | \$920 | 10.12\% | 36.73\% | ${ }^{336}$ |
| 20,68 | 577 | \$364 | 5304 | \$128 | s893 | 10.12\% |  | ${ }^{35}$ |
| 2018 | 575 | 5373 | 3285 | 5123 | ${ }^{\text {8888 }}$ | 10.12\% | 39.37\% | ${ }^{36}$ |
| $2 \times 20$ | 373 | ${ }_{5382}$ | 5268 | ${ }^{5118}$ | se39 | t0.12\% | 3837\% | 313 |
| ${ }_{2022}^{2027}$ | 878 | 5352 | 3277 | 5173 | \$1813 | 10.12\% | 39,37\% | 532 |
| ${ }^{2022}$ |  | ${ }_{83}^{3 / 2}$ | ${ }^{3268}$ | S10es | ${ }^{3788}$ | 10.12\% | 36.37\% | 83 |
| ${ }_{2024}^{2023}$ | 885 | ${ }_{5332}$ | ${ }^{3289}$ | Slas | 576 | 10.12\% | 30.37\% | 50 |
| 2025 | \$93 | 5343 | s245 | ${ }_{\text {spem }}$ | \% | (10.12\%\% |  | ${ }_{\text {cke }}^{\substack{328 \\ 428}}$ |
| ${ }^{2028}$ | ${ }^{* 31}$ | 5803 | 5238 | ${ }^{382}$ | 5635 | \% 123 | 30.3.3\% | ${ }_{327}$ |
| ${ }_{2028}^{2027}$ | ${ }_{558}^{558}$ | 5295 | ${ }^{323}$ | ${ }^{58} 8$ | se73 | 10,22\% | 33,3\% | 526 |
| 2026 | 357 | \$286 | \$224 | 384 | 365 | 10.2\% | 3837\% | 525 |


|  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Ges Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 |  | \% | ${ }^{2 \times 3}$ |
|  | Therms | Gex sumpy | \%ry |
| $\xrightarrow{\text { Year }}$ | 78 |  |  |
| 2010 | \% | ${ }_{80} 8884$ | ${ }_{3} 149$ |
| 2011 | 170 | 80.833: |  |
| 2012 | 178 | *0.3620 | 532 |
| 2013 | 170 | s,8:ay | \% |
| 2016 | 170 | 50, |  |
| ${ }^{204}$ | 170 | \$091900 | \$156 |
| $20 \% 6$ | \% | ${ }_{\text {80,828 }}$ | 135 |
| 2077 | 170 | 50.0375 | 8139 |
| 2018 | ${ }^{170}$ | ${ }^{50} \times 1888$ | 8161 |
| 2019 | 170 | 50, 5853 | 5153 |
| $20 \%$ | 1,9 | so sese | 5184 |
| 2021 | 170 | sorse | 5180 |
| 2028 | 170 | 50,3558 | 8180 |
| 2023 | 170 | so 0 85 2 | \$168 |
| ${ }^{2024}$ | ${ }^{770}$ | \$1,0531 | 377 |
| ${ }^{2025}$ | ${ }^{170}$ | 81.0152 | 3173 |
| 2026 | 79 | 81,053 | :1724 |
| ${ }^{2027}$ | 170 | s, | \$176\% |

## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

## Appliance Type <br> Tankless Water Heating

|  | Incremental Revenue Energy Charge | Incremental Revenue Cost of Gas | Incremental Revenue Cust. Charge | Total <br> Gas <br> Revenue | Gas <br> Supply <br> Cost | investment Carrying Costs | Incremental Customer Costs | Program Cost | Total <br> 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 |
| 2009 | \$77 | \$130 | \$51 | \$258 | \$130 | \$43 | \$10 | \$452.37 | \$635 |
| 2010 | \$77 | \$131 | \$51 | \$259 | \$131 | \$41 | \$11 | \$2.37 | \$185 |
| 2011 | \$77 | \$132 | \$51 | \$260 | \$132 | \$40 | \$11 | \$2.37 | \$185 |
| 2012 | \$77 | \$134 | \$51 | \$262 | \$134 | \$39 | \$11 | \$2.37 | \$186 |
| 2013 | \$77 | \$135 | \$51 | \$263 | \$135 | \$37 | \$11 | \$2.37 | \$186 |
| 2014 | \$77 | \$136 | \$51 | \$284 | \$136 | \$36 | \$11 | \$2.37 | \$186 |
| 2015 | \$77 | \$138 | \$51 | \$266 | \$138 | \$35 | \$11 | \$2.37 | \$187 |
| 2016 | \$77 | \$139 | \$51 | \$267 | \$139 | \$34 | \$11 | \$2.37 | \$187 |
| 2017 | \$77 | \$141 | \$51 | \$268 | \$141 | \$33 | \$11 | \$2.37 | \$187 |
| 2018 | \$77 | \$142 | \$51 | \$270 | \$142 | \$32 | \$11 | \$2.37 | \$188 |
| 2019 | \$77 | \$143 | \$51 | \$271 | \$143 | \$31 | \$12 | \$2.37 | \$189 |
| 2020 | \$77 | \$145 | \$51 | \$273 | \$145 | \$30 | \$12 | \$2.37 | \$189 |
| 2021 | \$77 | \$146 | \$51 | \$274 | \$146 | \$29 | \$12 | \$2.37 | \$190 |
| 2022 | \$77 | \$148 | \$51 | \$276 | \$148 | \$28 | \$12 | \$2.37 | \$190 |
| 2023 | \$77 | \$14日 | \$51 | \$277 | \$149 | \$27 | \$12 | \$2.37 | \$191 |
| 2024 | \$77 | \$151 | \$51 | \$279 | \$151 | \$27 | \$12 | \$2.37 | \$192 |
| 2025 | \$77 | \$152 | \$51 | \$280 | \$152 | \$26 | \$12 | \$2.37 | \$193 |
| 2026 | \$77 | \$154 | \$51 | \$282 | \$154 | \$25 | \$12 | \$2.37 | \$193 |
| 2027 | \$77 | \$155 | \$51 | \$283 | \$155 | \$24 | \$12 | \$2.37 | \$194 |
| 2028 | \$77 | \$157 | \$51 | \$285 | \$157 | \$23 | \$13 | \$452.37 | \$645 |
|  | Present Value of Benefits |  |  |  |  | Present Value of Costs |  |  |  |
|  |  |  |  | \$2,624 |  |  |  |  | \$2,355 |
|  |  |  |  |  |  | Benefit/Cost |  |  |  |
|  |  |  |  |  |  |  | Benerit/Cost Ratio |  | 1.11 |



## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Heating System |




| －${ }^{3}$－${ }^{3}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Suppiy | Cevelopment | sarrice |  | Tear | cost | Paxe ot twems | investment |
| Year | － | Man | Lum | Mager | westmem | orpese | Conomestoras | carring cas |
| ${ }_{2010}^{2008}$ | S100 | \＄500 | ${ }^{8400}$ | ${ }^{\text {si85 }}$ | ${ }^{\text {57，}}$ | $10.12 \%$ |  |  |
| 204 | 354 | tar | 5ra | \％ | \＄1，13 | 912\％ |  | m |
| 212 | 明 |  | \％ | \％ | ， |  | \％ | 运 |
| 20 | Sers | das | Sus | \％ | star | 10．12\％ | \％ | 3 |
| 析 | 593 | \％ | 334 | \％ | \％ | \％6．12\％ | \％ | ${ }^{1}$ |
| 20 | S83 | \％ | S3， | Sis： | Sion | 10．12\％ | ${ }^{40,106 \%}$ | sid |
| 2015 | 3 | ＋199 | 3335 | 3 | ssat | 1032\％ | 40．154\％ | cos |
| 2016 | \％ | Sner | 5323 | 5138 | 59 | 10.12 20 | 80．8\％ | 338 |
| 2012 | \％ | 3398 | ${ }^{513}$ | 3133 | 8020 | 10．12\％ | 40：96\％ | 337 |
| 2085 | 37 | ร3\％ | dead | 5128 | 5893 | 10， $22 \%$ | 50， $18 \%$ | ${ }^{36}$ |
| ${ }^{2016}$ | 575 | 5373 | s298 | 8123 | 586 | 10．12\％ | 40．18\％ | 535 |
| 2020 | 83 | 539 | ${ }^{3286}$ | 5178 | ${ }^{3638}$ | 10 12\％ | 10．18\％ | ${ }^{34}$ |
| 2029 | \％ | 8332 | 327 | S413 | ${ }_{5813}$ | 10：23\％ | ${ }^{40.154}$ | 33 |
| 2022 | ${ }^{569}$ | 3342 | sz6i | 5106 | 5789 | 1012\％ | 2013\％ | 53 |
| ${ }^{2023}$ | 367 | 5332 | 5281 | \＄100 | s7ed | 10 12\％ | 10．18\％ | 31 |
| 2024 | ${ }^{\text {sas }}$ | 5322 | ses， | \＄100 | 5748 | 10．12\％ | 碞19\％ | 536 |
| 2025 | se3 | 533 | 5245 | 596 | 577 | 10．12\％ | 40．13\％ | 329 |
| 2028 | ＊64 | 5338 | 5238 | 882 | \＄898 | 10 128\％ | 40．18\％ | ${ }^{28}$ |
| 2027 | ${ }^{553}$ | 5235 | ${ }^{523}$ | 386 | \＄873 | 10．22\％ | 40.18 | 37 |
| 2048 | 557 | 5280 | 5224 | 83 | 5551 | 10．12\％ | 42：184 | $\underline{58}$ |


| Incremental Customer Coste |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | mombly | Annua | Rabo Therms To | Amual rato | Anvas | Rato Thums ${ }^{\text {To }}$ | Amrua Rexic | Total mexamexal |
| $\frac{\text { Yaza }}{}$ | Adm | Ajm |  | domest | － |  | O2mCost | Aam 8 osm ${ }^{\text {ctast }}$ |
| 2010 | \％ 7 | ） | （2， $3 \times$ | S | 50， | 4， 184 | 4 | st |
| 200 | \％12 | ， |  | S644 | 5 | （380\％ | d | 512 |
| 2012 | 5175 | 521 | 40， $48 \%$ | cos | ss．a1 | 70． 180 | ${ }_{54}$ | ${ }_{512}$ |
| 2013 | 8177 | 521 | 40． $15 \%$ | $8_{88,4}$ | 59．41 | 40．18\％ | s | 312 |
| 2014 | s1．79 | 321 | 20．19\％\％ | 58.44 | 59，50 | 20．40\％ | s | 317 |
| 2015 | 31．＊＊ | 322 | 44，84\％ | \＄tea | \＄5．68 | 40．16\％ | 4 | 513 |
| 2076 | 81.82 | ＊22 | 40．4848 | \＄8．84 | ss．eb | 6419\％ | 5 | ${ }^{313}$ |
| 2017 | 51．24 | 522 | 40．193\％ | 59．84 | \＄278 | 40．88\％ | 5 | ${ }_{513}$ |
| 2018 | 81．88 | s22 | 46．18\％ | 58.84 | $58 . \mathrm{mb}$ | 40．48\％ | \％ | \＄13 |
| 209 | 5180 | 523 | 46189\％ | s6．24 | sti．6\％ | 40．18\％ | 54 | 513 |
| 3020 | ：1， 0 | ：2\％ | $40.10 \%$ | 50.24 | \＄40．09 | 40．18\％ | 5 | ${ }^{13}$ |
| ${ }^{2021}$ | S4，92 | \＄23 | 40．18\％ | 58.24 | 5918 | 40．13\％ | ${ }^{5}$ | 813 |
| 2 202 | $81 / 83$ | 323 | ＋0．19\％ | \＄6． 24 | 510.29 | 40．10\％ | 5 | ${ }_{5} 13$ |
| ${ }^{2023}$ | 81.95 | 323 | 468\％\％ | 50.24 | 510.38 | 40．18\％ | ${ }^{5}$ | ${ }^{513}$ |
| 2034 | 81.87 | ${ }^{2} 24$ | 20．48\％\％ | s9． 54 | \＄8， 50 |  | 4 | 514 |
| ${ }^{2035}$ | \＄1，28 | 524 | 40．18\％ | 59.54 | 310.38 | 40．88\％ | 4 | 814 |
| ${ }^{238}$ | 52.01 | \＄2 | 46， 4.85 | \＄9．84 | 519.7 | 40．19\％\％ | \＄4 | \＄4 |
| 2027 | \＄2．33 | 37a | 90．18\％\％ | 59.64 | svo．${ }^{1}$ | $40.18 \%$ | 54 | ${ }^{14}$ |
| 3728 | 520s | 525 | 40， $19 \%$ | \＄10．05 | s1092 | $450 \%$ | 54 | 54 |


| Coscosts |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Therms | Peer frems |  |
| $\frac{\mathrm{Ya} \text { a }}{20.08}$ |  | Supay yoss |  |
|  | ${ }^{178}$ | somatid | ¢158， |
| 2011 | ${ }_{178}$ | 50：382 | 5167 |
| 2012 | 78 | 56， 823 | 3159 |
| 2213 | ${ }^{17}$ | 50．009 | 1460 |
| 2014 | ${ }^{77}$ | sama | \＄12 |
| 2015 | ${ }^{178}$ | 50.980 | stay |
| 2046 | 178 | 50，0382 | s， 89 |
| 2017 | ${ }^{\text {т88 }}$ | 50.9375 | 3197 |
| 2098 | ${ }^{178}$ | spate | ${ }^{169}$ |
| 2019 | 178 | $5_{50853}$ | 1776 |
| 2020 | 178 | 50．953\％ | 3172 |
| 2021 |  | 80．7876 | 3174 |
| 2022 | 188 | 8nuss | 3173 |
| 2023 | 178 | so．s9s2 | \＄179 |
| 2024 | 178 | St．035 | \％ |
| 2285 | 178 | 81038 | 3184 |
| ${ }^{22282}$ | 78 | 5 | 5183 |
| 2027 | 178 | 510359 | S1848 |

## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Clothes Drying |



# Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program 

 RIM Test - Calculated Data
## Applanco Type Clothes Drymg

| Camion mon Escatater |  |  | 1.0\% | Depraciatuon Rete - Supply Mant Degaciation Rate - Davelopwienl Whatr Depreciation faxe - Sextes Line Depreciationt Reis - Manap |  |  | $2.500 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | \% |  |  |  | 2.95004 |
|  |  |  | 0\% |  |  |  | 200es |
|  |  |  | 10\% |  |  |  | 4.500 |
|  |  |  |  | atat |  |  |  |
| Revenyp - Enorgy Charge |  |  |  | Revenue-Cost of Cas |  |  |  |
|  |  |  |  |  |  |  |  |
| Year ${ }^{\text {Y }}$ |  |  |  |  | Thems | Fout Fate | aichare |
|  |  |  |  | 2008 |  | 50,8358 |  |
| 2376 | ${ }^{50}$ | \$0.5174 | ${ }^{26}$ | 2010 | sa | 50.874 | 34 |
| 2089 | 59 | so.5114 | 526 | 2041 | so | 50.8332 |  |
| 2012 2093 | ${ }^{50}$ | 50.5144 | \$26 | 2012 | ${ }^{50}$ | 80.8920 | Sas |
| ${ }_{2014}^{20,13}$ | 50 |  | ( | - | 50 50 |  | \% |
| 2015 | 50 | 80.314 | 526 | 2015 | 50 | 50.0450 | 48 |
| 2016 | ${ }_{50}$ | ${ }_{80,5114}$ | ${ }^{2} 8$ | 2016 | so | 50,9282 |  |
| 2047 | 50 | 30.5114 | \%26 | 2017 | * | 80.6375 | 84 |
| $\underset{\substack{2018 \\ 3018}}{ }$ | ${ }^{50}$ | \$0.5144 | 326 | 2048 | 5 | 50.946 | 547 |
|  |  | ${ }^{20.5174}$ | ${ }_{528} 58$ | 2019 | 50 | 50.ss3 | 46 |
| 2021 | 50 | ${ }_{80.5146}$ | ${ }_{886}$ | 2020 | 5 | sis.essat | 480 |
| 2022 | 50 | so.5194 | \$26 | 2782 | 50 |  |  |
| ${ }^{2023}$ | ${ }_{50}^{50}$ | ${ }_{50514}$ | ${ }_{5}^{526}$ | 2023 | 5 | S0. S952 | ${ }^{558}$ |
| 2024 | 50 | *0.514 | 526 | $2 \times 29$ | 5 | 5.0051 | sto |
| ${ }^{2023}$ | so | ${ }^{20.5144}$ | 826 | 2025 | 50 | 81.0152 | ssi |
| ${ }^{2023}$ | so | sosh14 | \% | 2026 | 80 | 81,823 | s51 |
| ${ }_{8}^{2098}$ | 50, | ¢0, | ${ }_{8}^{828} 8$ |  | 50 | (1038 | ${ }_{\substack{352 \\ 582}}^{51}$ |


|  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| incremental Customer Cosit |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | ${ }^{3 \times 58} 4$ | ${ }^{6}$ | $?$ | ${ }^{8,67}$ | $5 \cdot 5$ |
|  | *entidy | Ammat |  | Ansal Patic | Anvuat | Ratic Theomsto | tumar Resor | Tosal incromerial |
| Yeaz | Admi Cost | Atan cas | Tatal Corsumme | Asm Cast | comcost | Total Consumad | O84 Cost | Atrn 8 osm Cost |
| $20 \times 3$ | ${ }^{31.70}$ | ${ }^{239}$ | $11.28 \%$ | ${ }^{3226}$ | ${ }^{88.94}$ | ${ }^{11.28 \%}$ | 54 | ${ }_{53}^{53}$ |
| 2010 | st. 72 | ${ }^{521}$ | 1120\% | S2.37 | $8{ }^{50.3}$ | $1{ }^{120 \%}$ | \$1 | ${ }_{33}$ |
| 2018 | ${ }^{1173}$ | 321 | 12,2es | 52.37 | 51.22 | $11.20 \%$ | \$1 | 53 |
| 2012 | ${ }^{317.75}$ | ${ }^{522}$ | 9,299\% | 52.37 | 88.31 | 1, zeos | \$1 | 53 |
| 2003 | 5,7\% | 321 | 123\% | 52.37 | 89.41 | 128\% | :1 | 5 |
| 2014 | \$1.78 | 524 | :122\% | 52.37 | \$9,50 | 14.20\% | :1 | 33 |
| 2015 | \$1.88 | 522 | 11.29\% | 32,48 | 88.80 | 11.29\%/ | s1 | s |
| ${ }^{2019}$ | 54.92 | 522 | $11: 29 \%$ | \$2,48 | ${ }_{5898}$ | ${ }^{112.28 \%}$ | s: | * |
| 2017 | ${ }^{31.86}$ | ${ }^{222}$ | $11.209 \%$ | 32.48 | sery | ${ }^{11.28 \% \%}$ | 89 | ${ }_{4}$ |
| 2018 2018 2018 | Stis6 | 522 523 | ${ }^{1+1209 \%}$ | 58.48 <br> 8200 <br> 8. | ${ }_{5}^{59.969}$ | 111.29\% | 81 | * |
| 2008 | 54.60 | 523 | 1120\% | 52,80 | S10.08 | 11.29\% | 81 | 4 |
| ${ }^{2029}$ | 81922 | 823 | 14,29\% | \$280 | 51018 | 11.29\% | s1 | $\stackrel{4}{4}$ |
| ${ }^{2022}$ | S1.83 | ${ }^{2}$ | (11.29\% |  | 510.2e | ,1.29\% | s1 |  |
| ${ }^{2023}$ | \$1.80 | 823 | 1129\%\% | \$2. 60 | 51038 | 11.2\% | \$1 | 4 |
| ${ }^{2024}$ | S1.9\% | 524 | 11.29\%\% | 52.73, | ${ }^{3} 125050$ | 11.2e\% | st | $\stackrel{\mu}{4}$ |
| ${ }^{2025}$ | ${ }^{51.88}$ | ${ }^{32} 4$ | 11:28\%\% | \$2,7\% | 310.80 | ${ }^{11.2298 \%}$ | s1 | * |
| ${ }_{2087}^{2088}$ | $\begin{array}{r}\text { 52.01 } \\ \mathbf{5 2 0 3} \\ \hline\end{array}$ |  | ${ }^{112.296 \%}$ | S82.7; | - | (12.29\% | \$1 | * |
| 2028 | ${ }_{32.05}$ | ${ }_{525}$ | ${ }^{1}$ | ${ }_{58,82}$ | 510.82 | ${ }_{112.2 \%}$ | 8 | * |


| Gas Cosis |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | $z$ | ${ }^{3}$ | $\underline{3}$ |
|  | Thems | Fart Them | Gax Supfly |
|  |  | Sematy cas |  |
| 2006 | 50 |  | 8,3 44 |
| 2081 | ${ }_{50}^{50}$ | \$0 0 832 | 34 |
| 2012 | 50 | sp.e920 | 45 |
| 2013 | 5 | Scamas | м 5 |
| 2014 | 50 | 509099 | ${ }^{45}$ |
| 2015 | 50 | se.9190 | 46 |
| 2016 | ${ }_{50}$ | so.p282 | ${ }^{846}$ |
| 2017 | so | 50, 6375 | $\sqrt{47}$ |
| ${ }^{2048}$ | so | 50.cess | S47 |
| ${ }^{2028}$ | 50 | sposes | 5 |
| ${ }^{2020}$ | ${ }^{50}$ | scorss | 5 |
| 202 | \% |  | 9090 |
| 2022 | 5 | \%0 mas | \% |
| 2023 | 8 | Sains | S |
| ${ }^{2024}$ | so | st.0is? | sse |
| 2023 | ${ }^{50}$ | shins | Sr |
| ${ }^{2026}$ | so | (1)25 | S |
| ${ }_{2028}$ | 50 | 31, | S32 |

## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

Appliance Type
Cooking



## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Storage Tank Water Heating |



# Sebring Gas System - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Storage Tank Water Heating |  |  |  |
| Eramprion Ritas |  | LP Delmargin Re | 0.0\% |
| OcM Experse | 1.0\% | NG Fued Rate | 1.0\% |
| LᄂP Fwed Cost | 1.0\% | NG Sase Ratas | 0.0\% |


| Propans Cons-Table 1 |  |  |  |  | Natural Bas Supply Cost-Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cout Por Gamiton | Antura Gulion: | Tax Reste | Propare cost | Year | Cost Per Therm | Annual Thems | Tax Ralt | nacost |
| A | B | c | D | $\mathrm{B}^{+} \mathrm{C}(1+\mathrm{D})$ | A | B | c | 0 |  |
| 2009 | \$2.5460 | 188 | 7.5\% | 3508 | 2009 | \$0.8858 | 970 | 10\% | 3182 |
| 2010 | \$2.5533 | 188 | 7.5\% | \$509 | 2010 | \$0.8744 | 170 | 10\% | 3164 |
| 2014 | \$2.5603 | ${ }^{88}$ | 7.5\% | 5811 | 2011 | \$0.8832 | 170 | 10\% | \$188 |
| 2012 | \$2.5678 | 186 | 7.5\% | 5812 | 2012 | \$0.8920 | 170 | 10\% | 4197 |
| 2013 | \$2.5750 | 186 | 7.5\% | \$614 | 2013 | \$0.9009 | 170 | 10\% | \$188 |
| 2014 | \$2.5823 | 188 | 7.5\% | 3515 | 2014 | \$0.9099 | 170 | 10\% | \$170 |
| 2015 | \$2.5896 | 186 | 7.5\% | \$517 | 2015 | 30.9190 | 470 | 40\% | \$172 |
| 2016 | \$2.9958 | 186 | 7.5\% | \$518 | 2016 | \$0.9282 | 170 | 10\% | \$374 |
| 2017 | \$2.8041 | 188 | 7.5\% | \$318 | 2017 | \$0.0375 | 170 | 10\% | \$178 |
| 2018 | \$2.6113 | 186 | 7.5\% | 4529 | 2016 | \$0.9469 | 170 | 10\% | 517 |
| 2019 | \$2.6*86 | 186 | 7.5\% | 3622 | 2019 | 50.9583 | 170 | 10\% | 3178 |
| 2020 | \$2.8258 | 186 | 7.5\% | 5624 | 2020 | \$0.9659 | 170 | 10\% | 5181 |
| 2021 | \$2.6339 | 188 | 7.5\% | *629 | 2021 | \$0.9756 | 470 | 10\% | 3182 |
| 2022 | \$26404 | $18 \%$ | 7.5\% | *627 | 2022 | \$0.0853 | 170 | 10\% | 3184 |
| 2023 | \$2.6476 | 186 | 7.5\% | \$528 | 2023 | \$0.9852 | 470 | 10\% | \$18* |
| 2024 | \$2.5349 | 186 | 7.5\% | 2830 | 2024 | \$1.005 | 170 | 10\% | \$180 |
| 2005 | 52.6672 | 188 | 7.5\% | 4031 | 2025 | \$1.0152 | 170 | 10\% | \$190 |
| 2028 | \$2.8894 | 188 | 7.5\% | 153 | 2026 | \$1.0253 | 170 | 10\% | \$182 |
| 2027 | \$2.8767 | 188 | 7.5\% | 3034 | 2027 | \$1.0356 | 170 | 10\% | \$194 |
| 2029 | \$2,8839 | 188 | 7.5\% | \$336 | 2028 | \$1.0459 | 170 | 10\% | \$198 |


| Notural Oas Energy Charye - Table 3 |  |  |  |  | Natural Gas Customer Charge- Tabre 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | RAstepan | Annual | Tax Resta | nacont | Year | Monthy Customer charge | $\begin{aligned} & \text { Annuas } \\ & \text { Curtomer } \\ & \text { Charge } \end{aligned}$ | Appolisncice Annum Therm | Tetal Anmuar Therms | $\begin{gathered} \text { Rensto - } \\ \text { Appliance to } \\ \text { Totant } \end{gathered}$ | Tax Ram | Profented Customur Ching |
| A | B | $c$ | D | Brect + D | A | 8 | $c$ | D | $E$ | DE | 0 | crorer $1+2$ |
| 2008 | \$0.5174 | 170 | 10\% | ${ }^{588}$ | 2000 | \$ 2.00 | \$140.00 | 170 | 43 | 38.37\% | 10\% | * 1 |
| 2010 | \$0.5144 | 170 | 10\% | \$8\% | 2040 | \$12.00 | \$14.00 | 170 | 443 | 38.37\% | 10\% | * 4 |
| 2011 | \$0.5144 | 170 | 10\% | 598 | 2011 | \$12.00 | \$144.00 | 170 | 44 | 38,3\% | 12\% | * 1 |
| 2012 | \$0.5114 | 170 | 10\% | 598 | 2012 | \$1200 | \$144.00 | 170 | 443 | 38.37\% | 10\% | 81 |
| 2013 | 50.514 | 170 | 10\% | 3s | 2013 | \$12.00 | \$144.00 | 170 | 443 | 38.37\% | 10\% | 561 |
| 2014 | \$0.5114 | 170 | 10\% | * | 2014 | \$12.00 | \$144.00 | 170 | 43 | 30.37\% | 10\% | 501 |
| 2015 | \$0.5144 | 170 | 10\% | 5 | 2015 | \$2200 | \$144.00 | 170 | 443 | 3837\% | 10\% | \$81 |
| 2016 | \$0.5144 | 170 | 10\% | 38 | 2018 | \$12.00 | \$144.00 | 170 | 443 | 38.37\% | 10\% | 181 |
| 2017 | \$0.514 | 170 | 10\% | * | 2017 | \$12.00 | \$144.00 | 170 | 44 | 38.37\% | 10\% | 81 |
| 2018 | \$0.514 | 170 | 10\% | \% | 2018 | \$12.00 | \$144.00 | 170 | 443 | 30.37\% | 10\% | 581 |
| 2018 | \$0.514 | 170 | 10\% | *9* | 2019 | \$12.00 | \$144.00 | 170 | 443 | 38.37\% | 10\% | \$4 |
| 2020 | \$0.514 | 170 | 10\% | 35 | 2020 | \$12.200 | \$144.00 | 170 | 44 | 38.37\% | 10\% | 561 |
| 2021 | 50,514 | 170 | 10\% | 898 | 2021 | \$22.00 | \$144.00 | 170 | 44 | 38.37\% | 10\% | \$01 |
| 2022 | \$0.5134 | 170 | 10\% | 596 | 2022 | \$12.00 | \$144.00 | 170 | 443 | 38.37\% | 10\% | * |
| 2023 | \$0.5144 | 170 | 10\% | 598 | 2023 | \$12.00 | \$144.00 | 170 | 443 | 38.37\% | 10\% | 58 |
| 2024 | \$0.514 | 470 | 10\% | *s | 2024 | \$12.00 | \$144.00 | 170 | 443 | 36.37\% | 10\% | 561 |
| 2025 | \$0.514 | \$70 | 10\% | \$96 | 2025 | \$1200 | \$144.00 | 170 | 443 | 38.37\% | 10\% | 81 |
| 2026 | \$0.5144 | 170 | 10\% | 130 | 2026 | \$12.00 | \$144.00 | 170 | 443 | 36.37\% | 10\% | ** |
| 2027 | \$0.5144 | 170 | 10\% | 5 | 2027 | \$12.00 | \$144.00 | 170 | 44 | 35.37\% | 10\% | * 1 |
| 2028 | 50.514 | 176 | 10\% | \$98 | 2028 | \$12.00 | \$114.00 | 170 | 443 | 38.37\% | 10\% | 569 |

Sebring Gas System - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results


# Sebring Gas System - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program 

Participants Test - Data


| Propane Cosat-Table 1 |  |  |  |  | Natuan Gast Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yam | Cont Per Guation | Annuat | Tex Rate | Propane Cont | Year | Cose Paz Therm | Annual <br> Therar. | Tax Rato | ng cost |
| A | $B$ | $c$ | 0 | $\mathrm{g}^{\circ} \mathrm{C}(1+\mathrm{D})$ | A | B | c | 0 | B+C: $(1+$ c) |
| 2009 | 52.5408 | 164 | 7.5\% | 445 | 2009 | \$0.6658 | 150 | 10\% | \$143 |
| 2010 | \$2.5533 | 164 | 7.5\% | 1490 | 2010 | \$0.6744 | 150 | 10\% | \$144 |
| 2011 | 52.5005 | 164 | 7.5\% | 245 | 2011 | \$0.8832 | 150 | 10\% | 3149 |
| 2012 | \$25078 | 164 | 7.5\% | 462 | 2012 | 50.8920 | 150 | 10\% | \$147 |
| 2013 | \$8.5750 | 188 | 7.5\% | 469 | 2013 | \$0.9009 | 150 | 10\% | \$149 |
| 2014 | \$2.5823 | 164 | 7.5\% | \%us | 2014 | 50.9099 | 150 | 10\% | 8180 |
| 2015 | \$2.5896 | 164 | 7.5\% | \% 48 | 2015 | \$0.8190 | 150 | 10\% | \$152 |
| 2016 | \$7.5968 | 164 | 7.5\% | 345 | 2018 | \$0.9282 | 150 | 10\% | \$153 |
| 2017 | \$2.6941 | 164 | 7.5\% | 4458 | 2017 | \$0.9375 | 150 | 50\% | \$156 |
| 2018 | \$2.8173 | 164 | 7.5\% | 400 | 2018 | \$0.9489 | 150 | 10\% | *158 |
| 2016 | *2.6186 | 164 | 7.5\% | 44 | 2019 | 30.9563 | 150 | 10\% | \$188 |
| 2020 | \$2.6258 | 164 | 7.5\% | 4482 | 2000 | \$0.9859 | 150 | 10\% | 8189 |
| 2021 | \$2.8331 | 464 | 7.5\% | 4483 | 2023 | \$0.9756 | 150 | $10 \%$ | $\$ 161$ |
| 2022 | \$2.8404 | 164 | 7.5\% | 448 | 2022 | 50.9853 | 150 | 10\% | 5183 |
| 2023 | 52.8476 | 184 | 7.5\% | 408 | 2023 | \$0.9852 | 150 | 10\% | \$164 |
| 2024 | 22.8549 | 164 | 7.5\% | \$487 | 2024 | \$1.0051 | 150 | 10\% | \$180 |
| 2025 | \$2.6682 | 164 | 7.5\% | 4458 | 2023 | \$1.0152 | 150 | 10\% | 5188 |
| 2028 | \$2.8694 | 164 | 7.5\% | \$470 | 2026 | \$1.0233 | 150 | 10\% | 818 |
| 2027 | \$2.6767 | 184 | 7.5\% | \$471 | 2027 | \$1.0366 | 180 | 10\% | \$171 |
| 2023 | \$2.6839 | 164 | 73\% | \$472 | 2028 | \$1,0459 | 150 | 10\% | S173 |


| Natural Gas Energy Charge - Tabte 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yaem | Rats Per Therm | Annua thems | Tex Ratiol | Nac Cout |
| A | B | $c$ | D | $\mathrm{BCO}(1+\mathrm{D})$ |
| 2009 | 50.5114 | 150 | 10\% | 504 |
| 2010 | S0. 3114 | 150 | 10\% | 50\% |
| 2011 | \$0.5114 | 150 | 10\% | \$04 |
| 2012 | \$0.5114 | 150 | 10\% | * 84 |
| 2013 | \$0.5114 | 150 | 10\% | 34 |
| 2014 | \$0.5144 | 150 | 10\% | 84 |
| 2015 | \$0.5114 | 150 | 10\% | sas |
| 2016 | \$0.514 | 150 | 10\% | 64 |
| 2047 | \$0.514 | 150 | 10\% | 48 |
| 2078 | \$0.5114 | 150 | 10\% | 34 |
| 2019 | 50.5114 | 150 | 10\% | 44 |
| 2020 | 50.5114 | 150 | 10\% | 84 |
| 2021 | \$0.s114 | 150 | 10\% | * 4 |
| 2022 | S0. 5114 | 150 | 10\% | 84 |
| 2023 | 50.5114 | 150 | 10\% | 84 |
| 2024 | \$0.5114 | 150 | 10\% | 84 |
| 2025 | \$0.314 | 150 | 10\% | * 4 |
| 2028 | 50.5114 | 150 | 10\% | 884 |
| 2027 | \$0.5114 | 150 | 10\% | 48 |
| 2028 | 50.5114 | 750 | 10\% | 56 |


| Natural Cass Cusiorner Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Monsthy } \\ & \text { Customen } \\ & \text { Cherge } \end{aligned}$ | $\begin{aligned} & \text { Annual } \\ & \text { Cuntioner } \\ & \text { Charre } \end{aligned}$ | $\begin{aligned} & \text { Abpollance } \\ & \text { Annuan } \\ & \text { Therrins } \end{aligned}$ | Total Thums | $\begin{aligned} & \text { Retio - } \\ & \text { Appitanct } \\ & \text { Total } \end{aligned}$ | Tax Retan | Propatud charpe |
| A | 日 | c | D | $E$ | De | e | $C^{+(D E f)}$ |
| 2009 | \$12.00 | \$14.00 | 150 | 423 | 35.46\% | 10\% | \$(E8 |
| 2080 | \$12.00 | \$14.00 | 150 | 423 | 35.48\% | 10\% | ** |
| 2011 | \$12.00 | \$14.000 | 150 | 42 | 35.44\% | 10\% | 5* |
| 2012 | \$12.00 | \$14.00 | 130 | 423 | 35.45\% | 10\% | \% 6 |
| 2013 | \$12.00 | \$14.00 | 150 | 423 | 35.6\% | 10\% | 468 |
| 2044 | \$12.00 | \$14.00 | 150 | 43 | 35.46\% | 10\% | \$5 |
| 2015 | \$12.00 | 144.00 | 150 | 423 | 555.40\% | 10\% | 5 |
| 2016 | \$12.00 | \$14.00 | 150 | 423 | 35.46\% | 10\% | 208 |
| 2017 | \$12.00 | \$144.00 | 150 | 123 | 35.46\% | 10\% | 408 |
| 2018 | \$1200 | \$144.00 | 150 | 423 | 35.46\% | 10\% | 506 |
| 2019 | \$12.00 | \$14000 | 150 | 423 | 35.46\% | 10\% | \% |
| 2020 | \$12.00 | \$14.00 | 150 | 423 | 35.46\% | 10\% | *60 |
| 2021 | \$12.00 | \$144.00 | 150 | 423 | 35.46\% | 10\% | 500 |
| 2022 | \$12.00 | \$14,00 | 150 | 423 | 35.48\% | 10\% | ** |
| 2023 | \$12.00 | \$14.00 | 150 | 423 | 35.46\% | 10\% | \$0 |
| 2024 | \$12.00 | \$144.00 | 150 | 43 | 35.46\% | 10\% | 5 |
| 2025 | \$12.00 | \$144.00 | 150 | 423 | 35.46\% | 10\% | 5 |
| 2028 | \$1200 | \$144.00 | 150 | 123 | 36.46\% | 10\% | * 0 |
| 2027 | \$12.00 | \$144.00 | 150 | 423 | 35.46\% | 10\% | 360 |
| 2028 | \$12.00 | \$144.00 | 150 | 423 | 35.45\% | 10\% | *00 |

Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |



# Sebring Gas System - AGDF Energy Conservation Filing 2009 

Residential Propane Distribution System Conversion Program
Participants Test - Data


| Propane Cost-rable 1 |  |  |  |  | Matural Gas Supply Cost-Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yeer | Cont Por Gallon | Annam Galiona | Tax Reter | Propmexte Cont | Y** | Cowt Per Therm | Annual Therms | Tax Rumb | No cast |
| A | E | $c$ | D |  | A | 日 | c | D | $\mathrm{sme}(1+\mathrm{D})$ |
| 2009 | \$2.5460 | 194 | 7.5\% | 5032 | 2009 | 50.8658 | 178 | 10\% | 5470 |
| 2090 | \$2.5833 | 194 | 7.5\% | 8635 | 2010 | 30.874 | 178 | 10\% | \$171 |
| 2011 | \$2.5605 | 194 | 7.5\% | \$635 | 2011 | \$0.8832 | 178 | 10\% | \$173 |
| 2012 | \$2.5978 | 194 | 7.5\% | \%am | 2012 | \$0.8920 | 178 | 10\% | 5175 |
| 2013 | 12.5750 | 194 | 7.5\% | *683 | 2043 | \$0.9009 | 176 | 10\% | \$178 |
| 2014 | \$2.5823 | 194 | 7.5\% | \$630 | 2014 | \$0.9099 | 178 | 10\% | \$178 |
| 2015 | \$2.5496 | 19 | 7.5\% | 364 | 2015 | \$0.0190 | 178 | 10\% | \$180 |
| 2016 | \$2.5968 | 194 | 7.5\% | 3542 | 2016 | 50.9282 | 178 | 10\% | *182 |
| 2017 | \$2.8041 | 184 | 7.5\% | 5644 | 2017 | \$0.9375 | 178 | 10\% | \$184 |
| 2018 | \$2.8113 | 194 | 7.5\% | 4548 | 2048 | 50.360 | 178 | 10\% | \$188 |
| 2098 | \$2.8180 | 194 | 7.5\% | 5847 | 2019 | 50.9563 | 178 | 10\% | 8187 |
| 2020 | \$2.6259 | 194 | 7.5\% | 364 | 2020 | \$0.0059 | 178 | 10\% | 5189 |
| 2021 | \$2.8331 | 194 | 7.5\% | \$860 | 2021 | 50.9756 | 178 | 10\% | \$181 |
| 2023 | \$2.6404 | 594 | 7.5\% | \$852 | 2022 | 50.9853 | 178 | 10\% | 8183 |
| 2023 | \$2.8476 | 194 | 7.5\% | \$683 | 2023 | \$0.8952 | 178 | 10\% | \$195 |
| 2024 | \$2.8549 | 194 | 7.5\% | 265s | 2024 | \$1.0051 | 178 | 10\% | \$197 |
| 2025 | \$2.8622 | 10 | 7.5\% | SBE* | 2025 | \$1.0152 | 178 | 10\% | \%189 |
| 2028 | \$2.6094 | 194 | 7.5\% | 8558 | 2028 | \$1.0253 | 178 | 10\% | 5201 |
| 2027 | \$2.6787 | 194 | 7.5\% | *589 | 2027 | \$1,0356 | 178 | 10\% | \$203 |
| 2028 | \$2.8339 | 194 | 7.5\% | \$56\% | 2028 | \$1.0459 | 178 | 10\% | \$208 |


| Natural Oas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Rutbe Per } \\ & \text { Therme } \end{aligned}$ | Annual Therms | Tax Retw | Ne Cost |
| A | B | c | 0 | $\mathrm{B} \cdot \mathrm{C} \cdot(1+\mathrm{C})$ |
| 2009 | 50.5174 | 178 | 10\% | \$100 |
| 2010 | \$0.514 | 178 | 10\% | \$100 |
| 2011 | \$0.514 | 178 | 10\% | \$100 |
| 2012 | 50.5114 | 176 | 10\% | \$100 |
| 2013 | \$0.5114 | 178 | 10\% | \$100 |
| 2014 | \$0.5114 | 478 | 10\% | \$100 |
| 2015 | 50.514 | 178 | 10\% | \$100 |
| 2018 | \$0.5114 | 176 | 10\% | 5100 |
| 2017 | 50.5114 | 178 | 10\% | \$100 |
| 2018 | So. 514 | 178 | 10\% | \$100 |
| 2019 | S0. 5114 | ${ }^{776}$ | 10\% | \$100 |
| 2020 | \$0.5114 | 178 | 10\% | \$100 |
| 2021 | \$0.5114 | 178 | 10\% | 8100 |
| 2022 | \$0.5114 | 176 | 10\% | \$100 |
| 2023 | \$0.5114 | 178 | 10\% | \$100 |
| 2024 | So.5114 | 178 | 10\% | \$100 |
| 2025 | 50.514 | 178 | 10\% | \$400 |
| 2028 | \$0.5114 | 178 | 10\% | \$180 |
| 2027 | \$0.5114 | 178 | 10\% | \$100 |
| 2028 | \$0.5114 | 178 | 10\% | \$100 |


| Natural Oas Custorner Charye - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Momaty } \\ & \text { Customer } \\ & \text { Chanrite } \end{aligned}$ | $\begin{aligned} & \text { Annual } \\ & \text { Customew } \\ & \text { Chargy } \end{aligned}$ | Apphanere Anmual Thorman | Total Annus Therms | $\begin{aligned} & \text { Runtion } \\ & \text { Appilimese to } \\ & \text { Toluf } \end{aligned}$ | Tax Rate | Pro-nating Cutionnat Chany |
| A | B | $c$ | D | E | De | 0 | Cr(OE) ${ }^{(1+2)}$ |
| 2000 | \$12.00 | \$144.00 | 178 | 43 | 40.18\% | 10\% | sen |
| 2010 | \$12.00 | \$144.00 | 178 | 443 | 40.18\% | 10\% | 5 |
| 2011 | \$12.00 | \$144.00 | 178 | 443 | 40.18\% | 10\% | 54 |
| 2012 | \$12.00 | 3144.00 | 178 | 44 | 40.19\% | 10\% | sen |
| 2013 | \$12.00 | \$144.00 | 174 | 43 | 40.18\% | 10\% | 3 |
| 2014 | \$12.00 | \$14600 | 17\% | 443 | 40.18\% | 10\% | + |
| 2015 | \$12.00 | \$144.00 | 178 | 443 | 40.18\% | 10\% | \$s |
| 2018 | \$12.00 | \$144.00 | 178 | 443 | 40.18\% | 10\% | sen |
| 2017 | \$12.00 | \$144.00 | 178 | 43 | 40.18\% | 10\% | sent |
| 2018 | \$1200 | \$144.00 | 178 | 43 | 40.189\% | 10\% | 54 |
| 2019 | \$12.00 | \$144.00 | 178 | 443 | 40.18\% | 10\% | Se |
| 2020 | \$12.00 | \$14.00 | 178 | 43 | 40.88\% | 10\% | \$04 |
| 2021 | \$12.00 | \$14400 | 178 | 43 | 40.18\% | 10\% | sen |
| 2022 | \$12.00 | \$14400 | 178 | 443 | 40.15\% | 10\% | * |
| 2023 | \$12.00 | \$144.00 | 178 | 443 | 40.15\% | 10\% | * |
| 2024 | \$1200 | \$144.00 | 178 | 43 | 40.18\% | 10\% | ser |
| 2025 | \$1200 | \$144.00 | 178 | 43 | 40.18\% | 10\% | 504 |
| 2088 | \$12.50 | \$144.00 | 178 | 43 | 40.18\% | 10\% | sth |
| 2027 | \$12.00 | \$144.00 | ${ }^{778}$ | 443 | 40.18\% | 10\% | 54 |
| 2028 | \$12.00 | .144.00 | 17\% | 443 | 40.18\% | 10\% | \% |

Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program

Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Clothes Drying |



# Sebring Gas System - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program 

 Participants Test - Data| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Clothes Drying |  |  |  |
| Escaletion Rutat |  | LP Dovmargin Rate | 0.0\% |
| OsM Experse | 1.0\% | NG Fuel Rete | 1.0\% |
| $\underline{L P}$ Fuel Cosat | . $0 \%$ | NG Base Rates | 0.0\% |


| Propane Cosi T Table 1 |  |  |  |  | Naturat Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\operatorname{costg} \mathrm{gr}$ cosim | Annual Qullon: | Tax Rate | Aropare cont | Year | Cont Per Therm | Anthat Therms | Tax Rate | ng comt |
| A | 8 | c | 0 | Ect $(1+$ D) | A | 8 | $c$ | D | Brat $(1+$ D) |
| 2009 | \$2.5480 | 55 | 7.5\% | $\$ 148$ | 2009 | \$0.8858 | 50 | 10\% | 48 |
| 2010 | 52.5533 | 55 | 7.5\% | \$150 | 2010 | \$0.874 | 50 | 10\% | 549 |
| 2011 | \$2.5605 | 55 | 7.5\% | 8180 | 2014 | \$0.6832 | 50 | 10\% | 54 |
| 2042 | 32.5678 | 55 | 7.5\% | **54 | 2012 | \$0.8820 | 50 | 10\% | 54 |
| 2013 | \$2.5750 | 55 | 7.5\% | $\$ 151$ | 2013 | 50.9099 | 50 | 10\% | 550 |
| 2014 | \$2.5623 | 55 | 7.5\% | \$152 | 2014 | \$0.9099 | 50 | 10\% | \$500 |
| 2015 | \$2,5996 | 55 | 7.5\% | \$152 | 2045 | \$0.9180 | 50 | 10\% | \$81 |
| 2018 | \$2,5080 | 55 | 7.5\% | \$152 | 2016 | \$0.9262 | 50 | 10\% | *81 |
| 2017 | \$2.504 | 55 | 7.5\% | \$163 | 2017 | \$0.9375 | 50 | 10\% | *52 |
| 2018 | \$2.6113 | 35 | 7.5\% | \$150 | 2018 | \$0.969 | 50 | 10\% | 58 |
| 2018 | \$2.8188 | 55 | 7.5\% | \$154 | 2019 | 50.8563 | 50 | 10\% | 850 |
| 2020 | \$2.8259 | 55 | 7.5\% | \$184 | 2020 | \$0.9859 | 50 | 10\% | ** |
| 2021 | \$2.8331 | 55 | 7.5\% | \$14 | 2024 | 50.9756 | 50 | 10\% | 34 |
| 2022 | \$2.0404 | 55 | 7.5\% | \$155 | 2022 | \$0.9853 | 50 | 10\% | \$64 |
| 2023 | \$2.8479 | 55 | 7.5\% | \$155 | 2023 | \$0.9852 | 50 | 10\% | 508 |
| 2024 | \$2,.5549 | 55 | 7.5\% | \$158 | 2034 | \$1.0051 | 50 | 10\% | \$506 |
| 2025 | 32.6622 | 55 | 7.5\% | \$100 | 2025 | \$1.0152 | 50 | 10\% | 568 |
| 20\% | \$2.6694 | 55 | 7.5\% | 3157 | 202\% | \$1.0253 | 50 | 10\% | Sst |
| 2027 | \$2.6787 | 55 | 7.5\% | \$15\% | 2027 | \$1.035\% | 50 | 10\% | \$57 |
| 2028 | \$2.6839 | 55 | 7.5\% | \$157 | 2028 | \$1.0459 | 50 | 10\% | 368 |


| Natural Oas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Your | $\begin{gathered} \text { reate Per } \\ \text { Tharm } \end{gathered}$ | Annual therms | Tax Rate | Ne Coat |
| A | B | $c$ | D | Bra $(1+\mathrm{D})$ |
| 2009 | \$0.5114 | 50 | 10\% | \$28 |
| 2010 | 30.5114 | 50 | 10\% | 528 |
| 2011 | \$0.5114 | 50 | 10\% | *28 |
| 2012 | 50.5114 | 50 | 10\% | \$28 |
| 2013 | \$0.5114 | 50 | 10\% | \$28 |
| 2014 | \$0.5144 | 50 | 10\% | 528 |
| 2015 | \$0.5144 | 50 | 10\% | \$28 |
| 2016 | \$0.5114 | 50 | 10\% | \$28 |
| 2017 | 30.5114 | 50 | 10\% | 528 |
| 2018 | \$0.514 | 50 | 10\% | \$28 |
| 2019 | \$0.5114 | 50 | 10\% | \$28 |
| 2020 | 50.5114 | 50 | 10\% | \$28 |
| 2029 | \$0.5114 | 50 | 10\% | *28 |
| 2022 | 50.5114 | 50 | 10\% | \$23 |
| 2023 | 50.514 | 50 | 10\% | \$28 |
| 2024 | \$0.5144 | 50 | 10\% | *zs |
| 2025 | \$0.5114 | 50 | 10\% | \$28 |
| 2026 | 30.5114 | 50 | 10\% | \$28 |
| 2027 | \$0.514 | 50 | 10\% | \$28 |
| 2028 | 50.5114 | 50 | 10\% | 528 |


| Naturat Cas Custormer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yeat | Monthly Customer charge | $\begin{gathered} \text { Annual } \\ \begin{array}{c} \text { Cuntormer } \\ \text { Charge } \end{array} \end{gathered}$ | Apphlance Antual Thermst | Totar Annual Themis | $\begin{aligned} & \text { Rusto - } \\ & \text { Appolltrice io } \\ & \text { Total } \end{aligned}$ | Tex Rato | Pro-fland Cuablane Chmay |
| A | 8 | c | D | E | DIE | 6 | cricer $(1+2)$ |
| 2006 | \$12.00 | \$14400 | 50 | 44 | 11.28\% | 10\% | \$18 |
| 2010 | \$12.00 | \$144.00 | 50 | 443 | 11.29\% | 10\% | \$48 |
| 2011 | \$1200 | \$144.00 | 50 | 443 | $11.23 \%$ | 10\% | \$18 |
| 2012 | \$12.00 | \$144.00 | 50 | 43 | 11.29\% | 10\% | 518 |
| 2013 | \$12.00 | \$144.00 | 50 | 443 | 11.29\% | 10\% | 518 |
| 2014 | \$1200 | \$144.00 | so | 43 | 11.29\% | 10\% | \$18 |
| 2015 | \$12.00 | \$14.00 | 50 | 43 | 11.29\% | 10\% | \$4 |
| 2016 | \$12.00 | \$14.00 | 50 | 443 | 11.29\% | 10\% | * |
| 2017 | \$12.00 | \$144.00 | 50 | 443 | 11.29\% | 10\% | \$18 |
| 2018 | \$1200 | \$14400 | 50 | 43 | 11.2\%\% | 10\% | \$18 |
| 2019 | \$12.00 | 514.00 | 50 | 443 | 11.29\% | 10\% | \$1 |
| 2020 | \$12.00 | \$144.00 | 50 | 43 | 1129\% | 10\% | \$18 |
| 2021 | \$12.00 | \$144.00 | 50 | 43 | 11.29\% | 10\% | \$18 |
| 2022 | \$12.00 | \$144.00 | 50 | 43 | 11.29\% | 10\% | stu |
| 2023 | \$1200 | \$144.00 | 50 | 443 | 11.29\% | 10\% | \$18 |
| 2024 | \$12.00 | \$144.00 | 50 | 43 | 11.29\% | 10\% | 518 |
| 2025 | \$12.00 | \$144,00 | 50 | 443 | 11.29\% | 10\% | \$18 |
| 2026 | \$12.00 | \$144.00 | 50 | 443 | 11.29\% | 10\% | \$1* |
| 2027 | \$12.00 | \$144.00 | 50 | 43 | 11.28\% | 10\% | 318 |
| 2028 | \$12.00 | \$40.00 | 50 | 43 | 1129\% | 10\% | 14 |

## Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results

| Appliance Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cooking |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Benerits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance O\&M | rotal benefits | NG Equipment Cost | Propane Equipment Installation Cost | NG Instaliation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$134 | \$100 | \$60 | \$294 | \$0 | \$0 | \$0 | \$100 | \$60 | \$43 | \$25 | \$16 | \$244 |
| 2010 | 2 | \$135 | 0 | \$61 | \$195 | 0 | \$0 | 0 |  | \$61 | \$43 | \$25 | \$16 | \$145 |
| 2011 | 3 | \$135 | 0 | \$61 | \$196 | 0 | \$0 | 0 |  | \$61 | \$44 | \$25 | \$16 | \$146 |
| 2012 | 4 | \$136 | 0 | \$62 | \$197 | 0 | \$0 | 0 |  | \$62 | \$44 | \$25 | \$16 | \$147 |
| 2013 | 5 | \$136 | 0 | \$62 | \$198 | 0 | \$0 | 0 |  | \$62 | \$45 | \$25 | \$16 | \$148 |
| 2014 | 6 | \$136 | 0 | \$63 | \$199 | 0 | \$0 | 0 |  | \$63 | \$45 | \$25 | \$16 | \$180 |
| 2015 | 7 | \$137 | 0 | \$64 | \$200 | 0 | \$0 | 0 |  | \$64 | \$45 | \$25 | \$16 | \$181 |
| 2016 | 8 | \$137 | 0 | \$64 | \$201 | 0 | \$0 | 0 |  | \$64 | \$46 | \$25 | \$16 | \$162 |
| 2017 | 9 | \$138 | 0 | \$65 | \$202 | 0 | \$0 | 0 |  | \$65 | \$46 | \$25 | \$16 | \$163 |
| 2018 | 10 | \$138 | 0 | \$66 | \$204 | 0 | \$0 | 0 |  | \$86 | \$47 | \$25 | \$16 | \$184 |
| 2019 | 11 | \$138 | 0 | \$66 | \$205 | 0 | \$0 | 0 |  | \$56 | \$47 | \$25 | \$16 | \$165 |
| 2020 | 12 | \$139 | 0 | \$67 | \$208 | 0 | $\$ 0$ | 0 |  | \$67 | \$48 | \$25 | \$16 | \$158 |
| 2021 | 13 | \$138 | 0 | \$68 | \$207 | 0 | 50 | 0 |  | \$68 | \$48 | \$25 | \$16 | \$167 |
| 2022 | 14 | \$139 | 0 | \$68 | \$208 | 0 | \$0 | 0 |  | \$ 68 | \$49 | \$25 | \$16 | \$188 |
| 2023 | 15 | \$140 | 100 | \$69 | \$309 | 637 | (\$805) | 167 |  | \$69 | \$49 | \$25 | \$16 | \$160 |
| 2024 | 16 | \$140 | 0 | \$70 | \$210 | 0 | \$0 | 0 |  | \$70 | \$50 | \$25 | \$16 | \$161 |
| 2025 | 17 | \$141 | 0 | \$70 | \$211 | 0 | \$0 | 0 |  | \$70 | \$50 | \$25 | \$16 | \$162 |
| 2026 | 18 | \$141 | 0 | \$71 | \$212 | 0 | \$0 | 0 |  | \$71 | \$51 | \$25 | \$16 | \$163 |
| 2027 | 19 | \$141 | 0 | \$72 | \$213 | 0 | \$0 | 0 |  | \$72 | \$51 | \$25 | \$16 | \$184 |
| 2028 | 20 | \$142 | 0 | \$72 | \$214 | 0 | \$0 | 0 |  | $\$ 72$ | \$52 | \$25 | \$16 | \$186 |
|  |  |  |  | Present Value of Benetits | \$2,103 |  |  |  |  |  |  | Presemt Value of Costs |  | \$1,584 |
|  |  |  |  |  |  |  |  |  |  |  | BenefitCost Ratio |  | 1.33 |

# Sebring Gas System - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program 

Participants Test - Data


| Propane Cost-Table 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yaar | Cont Per | Annual Gutlon | Tax Relut | Propane cow |
| A | B | $c$ | 0 | $\mathrm{BCO}(1+\mathrm{D})$ |
| 2008 | \$2.5480 | 49 | 7.5\% | \$134 |
| 2010 | \$2.5533 | 49 | 7.5\% | \$135 |
| 2011 | \$2.5605 | 48 | 7.5\% | \$135 |
| 2012 | \$2.5678 | 49 | 7.3\% | 8138 |
| 2013 | \$2.5750 | 49 | 7.5\% | \$130 |
| 2014 | \$2.5623 | 49 | 7.5\% | 813\% |
| 2015 | 52.5896 | 49 | 7.5\% | \$137 |
| 2016 | \$2.5968 | 49 | 7.5\% | \$137 |
| 2017 | \$2.804 | 49 | 7.5\% | \$138 |
| 2018 | \$2.513 | 4 | 7.5\% | 1138 |
| 2019 | \$2.8186 | 49 | 7.5\% | 3136 |
| 2020 | \$2.6259 | 4 | 7.5\% | \$139 |
| 2021 | \$2.6331 | 49 | 7.5\% | 8139 |
| 2022 | \$2.6404 | 49 | 7.5\% | \$139 |
| 2023 | 32.6476 | 49 | 7.5\% | \$140 |
| 2024 | \$285849 | 49 | 7.5\% | \$40 |
| 2025 | \$2.6822 | 49 | 75\% | $\$ 141$ |
| 2006 | \$2.6654 | 49 | 7.5\% | \$14 |
| 2027 | \$2.6787 | 49 | 7.5\% | \$141 |
| 2028 | \$2.6839 | 49 | 75\% | \$112 |


| Natural Oas Supply Cost-Tathe 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yoar | $\begin{aligned} & \text { Cost Per } \\ & \text { Therm } \end{aligned}$ | Annual Therm: | Tax Reste | NE Cont |
| A | - | $c$ | D | $\mathrm{BrC}(1+0)$ |
| 2009 | \$0.8658 | 45 | 10\% | 54 |
| 2010 | 50.8744 | 45 | 10\% | sus |
| 2014 | \$0.8632 | 45 | 10\% | 54 |
| 2012 | \$0.8020 | 45 | 10\% | 5 |
| 2043 | \$0.900 | 45 | 10\% | 546 |
| 2014 | 50.9098 | 45 | 10\% | 348 |
| 2015 | 50.9100 | 45 | ¢0\% | \$48 |
| 2018 | \$0.8282 | 45 | 10\% | * 5 |
| 2017 | \$0,9375 | 45 | 10\% | 34 |
| 2018 | \$0.9469 | 45 | 10\% | \$4 |
| 2019 | 50.8563 | 45 | 10\% | 47 |
| 2020 | \$0.9659 | 45 | 10\% | \$4 |
| 2021 | \$0.9756 | 45 | 10\% | * 48 |
| 2022 | \$0.9853 | 45 | 10\% | * 4 |
| 2023 | \$0.8052 | 45 | 10\% | 348 |
| 2024 | \$1.0051 | 45 | 10\% | * 00 |
| 2025 | \$1.0152 | 45 | 10\% | \$00 |
| 2026 | \$1.0283 | 45 | 10\% | 51 |
| 2027 | \$1.0366 | 45 | 10\% | \$1 |
| 2026 | \$1.0459 | 45 | 10\% | \$52 |


| Natural Gas Enargy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| rour | ${ }_{\text {Rata }}$ Por | Annual | Tax Rato | NG Cost |
| A | B | c | 0 | Bra ${ }^{(1+8)}$ |
| 2000 | 50.5114 | 45 | 10\% | \$26 |
| 2010 | 90.5114 | 45 | 10\% | 428 |
| 2011 | 50.5114 | 45 | 10\% | \$25 |
| 2012 | 50.5114 | 45 | 10\% | ${ }^{23} 8$ |
| 2013 | 50.5114 | 45 | 10\% | 328 |
| 2014 | 30.5114 | 45 | 10\% | 255 |
| 2015 | 50.514 | 45 | 10\% | ${ }^{26}$ |
| 2016 | 30.5114 | 45 | 10\% | 825 |
| 2017 | 50.5114 | 45 | 10\% | 325 |
| 2018 | 50.5114 | 45 | 10\% | 385 |
| 2018 | 30.5114 | 45 | 10\% | 325 |
| 2020 | \$0.5114 | 45 | 10\% | ${ }^{26}$ |
| $2 \times 1$ | \$0.514 | 45 | 10\% | 228 |
| 2022 | \$0.5174 | 45 | 10\% | 328 |
| 2023 | 30.514 | 45 | 10\% | 325 |
| 2024 | 30.5114 | 45 | 10\% | 225 |
| 2025 | 30.514 | 45 | 10\% | 328 |
| 2028 | 50.5114 | 45 | 10\% | 128 |
| 2027 | 30.5114 | 45 | 10\% | \$26 |
| 2028 | 50.5114 | * 5 | 10\% | 525 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | montry Cuntarmer Charge | Annual Customat Chame | Applitence Ansual Themms | Total Annual Therm | $\begin{aligned} & \text { Reatio. } \\ & \text { Appplance to } \\ & \text { Todel } \end{aligned}$ | Tax Rate | Protintad cuatomer Chary |
| A | B | c | - | E | DEE | G | crorerer $(1+2)$ |
| 2000 | \$2.00 | \$14400 | 45 | 43 | 10.18\% | 10\% | * 16 |
| 2010 | \$12.00 | \$14.00 | 45 | 43 | 10.8\%\% | 10\% | \$15 |
| 2011 | \$12.00 | \$14.00 | 45 | 43 | 10,16\% | 10\% | 31* |
| 2012 | \$12.00 | \$14.00 | 45 | 43 | 10.18\% | 10\% | 346 |
| 2013 | \$1200 | \$144.00 | 45 | 443 | 10.10\% | 10\% | 316 |
| 2014 | \$12.00 | 5144.00 | 45 | 43 | 10.16\% | 10\% | 14 |
| 2015 | \$12.00 | \$14.00 | 45 | 43 | 10.16\% | 10\% | 516 |
| 2016 | \$12.00 | \$14.00 | 45 | 43 | 10.16\% | 10\% | \$18 |
| 2017 | \$12.00 | 5144.00 | 45 | 443 | 10.16\% | 10\% | 316 |
| 2018 | 512.00 | \$144.00 | 45 | 43 | 10.16\% | 10\% | \$18 |
| 2019 | \$12.00 | \$144.00 | 45 | 43 | 10.18\% | 10\% | 818 |
| 2020 | \$1200 | \$144.00 | 45 | 43 | 10.18\% | 10\% | ** |
| 2021 | \$12,00 | \$144,00 | 45 | 43 | 10.16\% | 10\% | 14 |
| 2022 | 112.00 | \$144.90 | 45 | 43 | 10.15\% | 10\% | \$18 |
| 2023 | \$12.00 | \$144.00 | 45 | 43 | 10.96\% | 10\% | \$16 |
| 2024 | \$12.00 | \$14.00 | 45 | 443 | 10.16\% | 10\% | \$16 |
| 2025 | \$12.00 | \$144.00 | 45 | 43 | 10.16\% | 10\% | 14 |
| 2028 | \$12.00 | \$144.00 | 45 | 443 | 10.16\% | 10\% | 818 |
| 2027 | \$1200 | \$144.00 | 45 | 443 | 10.16\% | 10\% | 518 |
| 2028 | \$12.00 | \$144.00 | 45 | 443 | 70.16\% | 10\% | \$18 |

$$
\begin{aligned}
& M \mathrm{O} \% \mathrm{~d} \%
\end{aligned}
$$

# Attachment 2.7 <br> Associated Gas Distributors of Florida <br> Energy Conservation Program Petition <br> Residential Propane Distribution System Conversion Program <br> March, 2009 

St. Joe Natural Gas Company Rate Impact Measurement Test

Participants Test
Summary of RIM Test and Participants Test Results

|  | Proposed <br> Allowance |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Gas Storage Tank Water Heating | $\$ 350$ |  | 1.36 |  |
| Gas Tankless Water Heating | $\$ 450$ |  | 1.46 |  |
| Gas Heating | $\$ 350$ | 1.36 | 1.41 |  |
| Gas Clothes Drying | $\$ 100$ | 1.24 | 1.49 |  |
| Gas Cooking | $\$ 100$ | 1.22 | 1.47 |  |

## St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

```
Appliance Type
Storage Tank Water Heating
```

|  | Incremental Revenue Energy Charge | Incremental Revenue Cost of Gas | Incremental Revenue Cust. Charge | Total Gas Revenue | Gas <br> Supply <br> Cost | Investment Carrying Costs | Incremental Customer Costs | Program Cost | Total 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 |
| 2009 | \$117 | \$152 | \$74 | \$343 | \$152 | \$22 | \$10 | \$350.00 | \$535 |
| 2010 | \$117 | \$154 | \$74 | \$344 | \$154 | \$21 | \$11 | \$0.00 | \$186 |
| 2011 | \$117 | \$155 | \$74 | \$346 | \$155 | \$21 | \$11 | \$0.00 | \$186 |
| 2012 | \$117 | \$157 | \$74 | \$347 | \$157 | \$20 | \$11 | \$0.00 | \$187 |
| 2013 | \$117 | \$158 | \$74 | \$349 | \$158 | \$19 | \$11 | \$0.00 | \$189 |
| 2014 | \$117 | \$160 | \$74 | \$350 | \$160 | \$19 | \$11 | \$0.00 | \$190 |
| 2015 | \$117 | \$162 | \$74 | \$352 | \$182 | \$18 | \$11 | \$0.00 | \$191 |
| 2016 | \$117 | \$163 | \$74 | \$354 | $\$ 163$ | \$17 | \$11 | \$0.00 | \$192 |
| 2017 | \$117 | \$165 | \$74 | \$355 | \$165 | \$17 | \$11 | \$0,00 | \$193 |
| 2018 | \$117 | \$167 | \$74 | \$357 | \$167 | \$16 | \$11 | \$350.00 | \$544 |
| 2019 | \$117 | \$168 | \$74 | \$359 | \$168 | \$16 | \$11 | \$0.00 | \$195 |
| 2020 | \$117 | \$170 | \$74 | \$360 | \$170 | \$15 | \$12 | \$0.00 | \$197 |
| 2021 | \$117 | \$172 | \$74 | \$362 | \$172 | \$15 | \$12 | \$0.00 | \$198 |
| 2022 | \$117 | \$173 | \$74 | \$364 | \$173 | \$14 | \$12 | \$0.00 | \$199 |
| 2023 | \$117 | \$175 | \$74 | \$365 | \$175 | \$14 | \$12 | \$0.00 | \$201 |
| 2024 | \$117 | \$177 | \$74 | \$367 | \$177 | \$13 | \$12 | \$0.00 | \$202 |
| 2025 | \$117 | \$179 | \$74 | \$369 | \$179 | \$13 | \$12 | \$0.00 | \$203 |
| 2026 | \$117 | \$180 | \$74 | \$371 | \$180 | \$12 | \$12 | \$0.00 | \$205 |
| 2027 | \$117 | \$182 | \$74 | \$373 | \$182 | \$12 | \$13 | \$0.00 | \$207 |
| 2028 | \$117 | \$184 | \$74 | \$374 | \$184 | \$11 | \$13 | \$0.00 | \$208 |
| Present Value of Benefits |  |  |  |  | Present Value of Costs |  |  |  |  |
|  |  |  |  | \$3,475 |  |  |  |  | \$2,375 |
|  |  |  |  |  | Ratio |  |  |  | 1.46 |


| Appliance Type |
| :---: |
| Storage Tank Water Heating |



| Tata 3 |  |  |  |  |  |  |  |  | Tano : |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - $\quad$ - |  |  |  |  |  |  |  |  |  | Tharemental Customer Costs |  |  |  |  |  |  |  |
|  | Supay | Diverciomort | Serrice |  | Toal | cime | R3tio of hams | Investmeat |  | Mority | Amua | Rasate Tnerts ${ }^{\text {Ta }}$ | Anmal Ratio | amyes | Ratio Therms To | Arumerat | Tuat incemmal |
| Yar | man | main | Line | wates | Ifveatrant |  | corsimed TS Totar | Camvercos: | yex | Adm. 5 gost |  | Tas conmum | Adm. Casi |  | Tola Casama | Onatcost | Asm, 50484 cost |
| $20 \times 8$ | 5100 | 3500 | ${ }^{\text {s257 }}$ | 6130 | 5097 | ${ }^{5} 8.8 \%$ | ${ }^{3837 \% \%}$ |  | ${ }^{2098}$ | 81.80 | 813 | 34,37\% | ${ }^{\text {s4.f9 }}$ | 511.28 | 39.97\% | ${ }^{35}$ | \$19 |
| 2010 2011 | \$597 | Stise | (3249 | (125 | (3855 | ${ }^{5} 570 \%$ | 3637\% | 581 | 2010 | 81.10 | ${ }_{513}^{513}$ |  | S4.99 | \$14.398 | ${ }^{33} 3739 \%$ | ${ }^{\text {sf }}$ | *11 |
| 2011 | \$94 | ${ }_{5}^{5468}$ | \$324 | ${ }_{51120}^{130}$ | ${ }^{3523}$ | 5 | 3i.37\% | ${ }^{21}$ | 2013 | \$1.11 | 513 | 33,37\% | \$4.99 | Sti.64 | 38.37\% | 56 | (1914 |
| 2012 | 501 | ${ }^{4453}$ | ${ }^{3233}$ | ${ }^{1115}$ |  | 5 | 36.37\% | 520 | ${ }^{2017}$ | \$1.12 | 513 | 38.37\% | 34.999 | S44.68 | 88.37\% | \%88 | stir |
| 2033 | \$888 | \%438 | ${ }^{5225}$ | \$110 | ${ }_{\text {sex }}$ | 5 | 33, 3 \%\% | \$198 | ${ }_{2014}^{2013}$ | \$1,43 | \$14 | 38.37\% | 55.37 | Sti.e3 | 3937\% | ${ }_{86}^{66}$ | (1) |
| 2014 | ${ }^{595}$ | ${ }_{584}$ | \$278 | ${ }^{3106}$ | Sex3 | $578 \%$ | 3937\% | \$188 | 2014 | 51.15 | ${ }^{814}$ | \% 3.378 | ${ }^{1537}$ | \$514.988 | ${ }^{2037 \%}$ | ${ }^{6}$ | ${ }^{\text {sin }}$ |
| 2015 | s82 | ${ }^{3410}$ | S24 | 5102 | 585 | 5.78\% | 3.3.3\%\% | 516 | 2015 | \$1.18 | 514 | 33.37\% | ${ }_{5} 5$ | \$85,13 | ${ }^{338.379 \%}$ | ${ }^{36}$ | 811 |
| 2011 | 579 | ${ }_{\text {\%336 }}$ | 52.4 | 598 | ${ }^{577}$ | $5.78 \%$ | $3 \mathrm{zaz7} \mathrm{\%}$ | 317 | ${ }^{2048}$ | \$1.17 | ${ }^{144}$ | ${ }^{38378 \%}$ | \$59\% | \$15.28 | ${ }^{30.97 \%}$ | ${ }^{56}$ | \$14 |
| 2047 | ${ }^{576}$ | ${ }^{\text {s } 33}$ | 3147 | 5 | ${ }_{5720}$ | 5789 | 30.30\% |  | 2017 | \$1.18 | S44 | ${ }^{34.35 \%}$ | \$5.37 | ${ }^{51543}$ | ${ }^{39,37 \%}$ | se | \$19, |
| ${ }^{2019}$ | ${ }^{573}$ | ${ }^{3370}$ | ${ }^{5160}$ | \$900 | ${ }^{5723}$ | $5780 \%$ | 38.37\% | ${ }^{516}$ | 2008 | \$1.19 | ${ }^{314}$ | 3, 3 37\% | 5537 | \$18589 | ${ }^{38.37 \%}$ | se | sis |
| 2019 | 87 | ${ }_{356}$ | 5184 | 586 | seep | ${ }^{5} 578 \%$ | 3.37\%\% | ${ }^{418}$ | 2049 | \$1.20 | 514 | ${ }^{38,37 \%}$ | 45.37 | \$15978 | ${ }^{3.373 \%}$ | ${ }_{86}^{86}$ | s" |
| 2020 | se | ${ }^{334}$ | \$178 | ${ }^{583}$ | \$078 | ${ }^{5} 578 \%$ |  | 845 | ${ }_{2021}^{2029}$ | \$1728 | Stis | 36,37\% | x576 | ${ }^{\mathbf{5 1 5 4 . 9 0}}$ | 30,374. | \% 6 | s12 |
| 2021 | ${ }^{897}$ | 5335 | ${ }^{3172}$ | ${ }^{80}$ | 3654 | 5 | ${ }^{36,37 \%}$ | S |  | \$123 | \$15 |  | S5578 | *19, | ${ }^{39} .379 \%$ | \% | 512 |
| 2022 | ${ }^{\text {\#05 }}$ | ${ }^{33} \mathbf{3} 4$ | \$198 | ${ }^{77}$ | se32 | ${ }^{57884}$ | ${ }^{38,37 \%}$ | (144 | ${ }_{2023}^{2023}$ |  | 515 515 | 30, 3 37\% | \$5576 | ${ }_{\text {S }}^{510.28}$ | 33.37\% | \% | 312 |
| 2023 <br> 2024 <br> 020 | $\underset{\substack{\text { s63 } \\ \text { sti }}}{ }$ | (\$333 |  | -874 | \% |  | 39,3\%\% | \$14 | ${ }_{2}^{2023}$ | 51,28 | ${ }^{515}$ | - $38.3 .37 \%$ | ${ }_{\text {\% }}^{\mathbf{5} 578}$ | \$19.35 | - $38.3 .37 \%$ | 8 | \$12 |
| zeas | 359 | \$2,3 | \$154 | smb | 5571 | $5.7 \%$ | 34.37\% | 53 | 2025 | \$1.29 | 515 | 30.37\% | 55.78 | \$16, | $33.37 \%$ | ${ }^{3}$ | 112 |
| $2{ }^{2} \times 6$ | ss7 | \$263 | 3148 | 5 sc | 5551 | 5.79\% | 33,37\% | \$12 | 2025 | \$1.28 | 515 | ${ }^{36} \mathbf{3}$ 3\% | \$5.76 | \$15:8 | 30.378 | ${ }^{66}$ | 312 |
| 2327 | s55 | ${ }^{3274}$ | 3141 | 882 | \$532 | $5.80 \%$ | 38.3\%\% | 512 | 2027 | \$1.30 | 518 | 38, 37\% | 54,14 | \$77.0s | 33,30\% | 87 | 813 |
| 2028 | t53 | \$365 | \$158 | 500 | 5514 | $578 \%$ | 33,37\% | sti | 2728 | \$1.32 | 518 | 8933\% | 5514 | 317. 22 | 39, $37 \%$ | 87 | 31 |


| Gas Cosit |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 23 |
| ver | Thertho | Gossuphy | Gns Supoly |
| Yas |  | fath |  |
| 209 | ${ }^{170}$ | [8sal |  |
| ${ }_{2011}^{2016}$ | 170 | so.x4e | S134 |
| 2012 | 190 | \$00231 | 5158 |
| 2013 | 175 | 80.9323 | 5158 |
| 2044 | 172 | 30.947 | 5160 |
| 2015 | 170 | \$0.9511 | 5182 |
| 2016 | ${ }^{170}$ | \$0xat | 5163 |
| 20.7 | 170 | semper | 5168 |
| 2218 | ${ }^{170}$ | s0, 878 | 5167 |
| 2018 | 180 | 50.888 | 183 |
| 2088 | 170 | \$0.9808 | *7\% |
| 2021 | 170 | \$1.0096 | \$172 |
| 2022 | 9 | 81.0197 | 8873 |
| ${ }^{2023}$ | 190 | \$1.0289 | ${ }^{31785}$ |
| 2024 | \%0 | \$10a92 | sit |
| ${ }^{2023}$ | 178 | 51.8008 | 3179 |
| ${ }^{2028} 8$ | 179 | sion | ${ }^{1880}$ |
| 2027 | 170 | 51.007 | 3182 |

## St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type <br> Tankless Water Heating |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Incremental Revenue Energy Charge | Incremental Revenue Cost of Gas | Incremental Revenue Cust. Charge | Total Gas Revenue | Gas <br> Supply <br> Cost | Investmeni Carrying Costs | Incremental Customer Costs | Program Cost | Total <br> 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 thru9 |
| 2009 | \$103 | \$134 | \$68 | \$305 | \$134 | \$20 | \$10 | \$450.00 | \$614 |
| 2010 | \$103 | \$136 | \$68 | \$307 | \$136 | \$20 | \$10 | \$0.00 | \$165 |
| 2011 | \$103 | \$137 | \$68 | \$308 | \$137 | \$19 | \$10 | \$0.00 | \$166 |
| 2012 | \$103 | \$138 | \$68 | \$309 | \$138 | \$18 | \$10 | \$0.00 | \$167 |
| 2013 | \$103 | \$140 | \$68 | \$311 | \$140 | \$18 | \$10 | \$0.00 | \$168 |
| 2014 | \$103 | \$141 | \$68 | \$312 | \$141 | \$17 | \$10 | \$0.00 | \$169 |
| 2015 | \$103 | \$143 | \$68 | \$314 | \$143 | \$17 | \$10 | \$0.00 | \$170 |
| 2016 | \$103 | \$144 | \$68 | \$315 | \$144 | \$16 | \$10 | \$0.00 | \$170 |
| 2017 | \$103 | \$146 | \$68 | \$317 | \$146 | \$15 | \$10 | \$0.00 | \$171 |
| 2018 | \$103 | \$147 | \$68 | \$318 | \$147 | \$15 | \$10 | \$0.00 | \$172 |
| 2019 | \$103 | \$148 | \$68 | \$319 | \$148 | \$14 | \$11 | \$0.00 | \$173 |
| 2020 | \$103 | \$150 | \$68 | \$321 | \$150 | \$14 | \$11 | \$0.00 | \$175 |
| 2021 | \$103 | \$151 | \$68 | \$322 | \$151 | \$13 | \$11 | \$0.00 | \$176 |
| 2022 | \$103 | \$153 | \$68 | \$324 | \$153 | \$13 | \$11 | \$0.00 | \$177 |
| 2023 | \$103 | \$154 | \$68 | \$326 | \$154 | \$13 | \$11 | \$0.00 | \$178 |
| 2024 | \$103 | \$156 | \$68 | \$327 | \$156 | \$12 | \$11 | \$0.00 | \$179 |
| 2025 | \$103 | \$158 | \$68 | \$329 | \$158 | \$12 | \$11 | \$0.00 | \$181 |
| 2026 | \$103 | \$159 | \$68 | \$330 | \$159 | \$11 | \$11 | \$0.00 | \$182 |
| 2027 | \$103 | \$161 | \$68 | \$332 | \$181 | \$11 | \$12 | \$0.00 | \$183 |
| 2028 | \$103 | \$162 | \$68 | \$333 | \$162 | 511 | \$12 | \$450.00 | \$635 |
| Present Value of Benefits |  |  |  |  |  | Present Value of Costs |  |  |  |
|  |  |  |  | \$3,097 |  |  |  |  | \$2,192 |
| BenefitlCost |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Ratio |  | 1.41 |

## Appliance Type <br> ankless Water Heating

|  | （exiser | cres | $\begin{aligned} & 1.0 \% \% \\ & 0 \% \% \\ & 0 \% \% \\ & 0 \% \\ & 0 \% \end{aligned}$ | Chereciabern Rate－Sugily Merr Depraciatian zadol－Devatopmem Main Depreciation 良解e－Sanicaline Depreciation Relfe ．Wemet |  |  |  | $\begin{aligned} & 3.308 \\ & 3.300 \\ & 3.306 \\ & 3.0 \times 4 \\ & 406 \end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tabie： |  |  |  | ＋19 |  |  |  |  | ata |  |  |  |  |
| Revenue－Energy Charge |  |  |  | Revenue－Cost of Gas |  |  |  |  | Revenue－Custamer Charge |  |  |  |  |
|  | 2 |  | $2{ }^{2} 3$ | ， | ， | 1 | 23 |  | 1 | 2 | 3 | 4 | 173 |
|  |  |  |  |  |  |  |  |  |  | Man新为y Customes | Ansuas Cusamar | Rizin Therfas | Prareixa Anmial |
|  | Thams | Ease Rata | Tota Charge | $\xrightarrow{\text { Year }}$ | Thame | Fuel Rate | Totat chave |  | ${ }_{\text {Y }}^{2 \text { arr }}$ | $\frac{\text { Clagre }}{86880}$ |  |  |  |
| ${ }_{2010}^{209}$ | ${ }_{159}$ | Sosess | ${ }_{5103}$ | 2010 | \％80 | 580.0098 |  |  | 2010 | \＄15．00 | ${ }_{\text {spaza }}$ | ${ }^{35} 546 \%$ |  |
| 2017 | 150 | soteces | 5103 | $20+1$ | 150 | 50.8140 | \＄139 |  | 2017 | \＄10．00 | 51080 | $55.49 \%$ | ${ }_{685}$ |
| 2042 | 150 | s0．8883 | 5193 | 2012 | 150 | s0．0231 | \＄138 |  | 2012 | \＄18．00 | \＄72000 | 35．46\％ | ${ }^{568}$ |
| 2073 | 150 | 50．8883 | 8183 | 2043 | ${ }^{150}$ | 50：323 | S140 |  | 293 | \＄19．00 | \＄19200 | 35．45\％ | ${ }^{\text {sib }}$ |
| ${ }^{294}$ | 180 | 50．8863 | ${ }^{193}$ | 2014 | ${ }^{159}$ |  | \＄144 |  | 2014 | \＄12．00 | \＄19200 | 35．94\％ | S68 |
| ${ }_{2}^{2018}$ | \％ |  |  | 2015 | 150 150 150 | Sose | 5143 <br> sise <br> 180 |  | ${ }_{2018}^{2015}$ | 51600 $\$ 10.0 \%$ | ${ }_{\text {S }}^{\text {S }}$ | 3ms | 568 |
| 2077 | \％ 50 | ${ }_{806863}$ | sta3 | 207 | 150 | samma | 3146 |  | 2017 | 51000 | \＄102．00 | \＄5，46\％ | ${ }_{568}$ |
| 20 O | ：59 | 50， 5883 | 5193 | 20.8 | 150 | se．arem | 514 |  | 2018 | $5 \times 60$ | \＄102．90 | 35．48\％ | ${ }^{668}$ |
| 2079 | ． 50 | soseas | 8173 | ${ }^{2019}$ | ${ }^{150}$ | 50．086？ | ${ }^{1465}$ |  | 2019 | 51800 | \＄192，00 | ${ }^{35.456 \%}$ | \＄588 |
| $\underset{2021}{2020}$ | ${ }_{150}^{150}$ |  | 5903 5103 | ${ }_{2021}^{2020}$ | 159 |  | ¢1580 |  | 2020 2021 |  |  | 35．46\％ | cis |
| 2022 | 150 | \＄0 se6s | \＄163 | 2022 | \％ 50 | \＄1．0187 | \＄153 |  | 2020 | ${ }_{\$+1800}$ | （10200 | 35．40\％ | ${ }_{\text {bex }}$ |
| 2023 | 150 | ${ }^{50.8883}$ | 5103 | 2023 | ${ }^{150}$ | 51．0298 | 5154 |  | 2023 | 516.90 | 51803 | 25．98\％ | ste |
| ${ }_{2}^{2024}$ | 150 150 150 | so． | 5633 5693 | ${ }_{2025}^{2024}$ | （150 | \＄51．0902 |  |  | ${ }_{2025}^{2024}$ |  |  | ${ }^{3514.4 \% \%}$ |  |
| 22085 | \％o | ${ }^{80} 888{ }^{\text {e83 }}$ | ${ }^{1813}$ | ${ }^{2028}$ | ${ }^{150}$ | St．68t | ${ }_{5158}$ |  | 2588 | ： 16.000 | ${ }_{5112000}$ | 3540\％ | ${ }^{368}$ |
| ${ }_{2028}^{2027}$ | ${ }_{80}$ | ${ }_{5}^{50.0683} 8$ | （ti03 | ${ }_{2028}^{2027}$ | $\underset{150}{150}$ | ${ }^{51.0197}$ | （ |  | ${ }_{2688}^{2027}$ |  |  | － $35.480 \%$ |  |


| Tatio 3 |  |  |  |  |  |  |  |  | Tation |  |  |  |  |  |  |  |  | Tamos |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | incremental Customer Cosis |  |  |  |  |  |  |  |  | Gas Costis |  |  |  |
|  | Supply Ouviopmer |  | surices |  | Tote | $\frac{7}{c_{404}}$ |  |  |  | $\frac{2}{2}$ | $\frac{3}{\text { Anase }}$ | $\frac{4}{\text { Ratio Themes }}$ |  |  | Ratio Thems 7 | maim Reio | hxuer | －$\quad 1$ | $\frac{2}{2}$ | Parr Therm Gas sumity |  |
| $\underset{\text { Y } 2004}{ }$ | ${ }_{\text {Main }}^{\text {M100 }}$ | Main | ${ }_{\text {L }}^{\substack{\text { Line } \\ 8827}}$ | $\frac{\text { malat }}{\text { Sta }}$ | （10xatment | ${ }^{\text {drabens }}$ |  | $\frac{\text { carmancos }}{520}$ | －Yege | $\frac{\text { atam ches }}{\text { Si，}}$ | $\frac{\mathrm{am} . \mathrm{cos}}{\mathrm{s} \text { i3 }}$ | Ttataconem | $\frac{\text { Aatm }}{605}$ | $\frac{\text { Onacost }}{814.25}$ | Total 5 coname | ${ }_{\text {amc }}$ | \＄10 |  | $-158$ | Suytabit | $\underbrace{\text { cost }}_{\text {cosid }}$ |
| 2010 | 597 | 5484 | \＄249 | 325 | 5955 | 5.89 | $35.48 \%$ | 520 | 2910 | 51.10 | ：13 | 35．48\％ | ${ }_{59,81}$ | \＄8，4，39 | 53．46\％ | ${ }^{5}$ | \＄0 | 2010 | 150 | 20．0045 | 5136 |
| 2011 |  | Sabs | 324 | 3120 | ${ }^{3823}$ | 5．75\％ | 35．48\％ | 519 | 2 m | \＄1．11 | ${ }_{513}$ | 35．48\％ | S4．89 | 54．4．54 | 35．48\％\％ | 55 | \＄10 | 2041 | 150 | sa， 944 | 5197 |
| ${ }^{2012}$ | 5 | ${ }^{\text {sans }}$ |  | S415 | S882 | 5．79\％ | ${ }^{35} 54848$ | 5 | ${ }_{2012}^{2042}$ | \＄1．12 | ${ }_{514}^{813}$ | 3\％49\％ | 54．97 | 514888 | 35．406\％ | \＄5 | s＋0 | ${ }_{3}^{2012}$ | （150 | 30， |  |
| 2013 | 589 | \＄438 | ${ }_{\substack{3225}}^{5218}$ | 810 | ¢8839 |  | 35．46\％ | 518 | ${ }^{2013}$ | 51．13 | S14 | ${ }^{35}$ | － | Stis．03 |  | （ 56 | 348 | 2013 | ${ }_{150}^{150}$ | 50．8323 | Stac |
| 2014 2045 | 348 | 5424 | ${ }^{5218}$ | 8106 | 58 | ${ }^{5799 \%}$ | 35．48\％ | 5 | ${ }^{2014}$ | S1．15 | S | ${ }_{35}^{35.486 \%}$ |  | ${ }_{5}^{814.989}$ | 35．40\％ | S5 <br> s5 | \＄318 | ${ }_{2014}^{2015}$ | － |  |  |
| 2046 | 578 | \％398 | 32304 | \％10 | 577 | $5.74 \%$ | ${ }^{35} 5.46 \%$ | sis | 2016 | 51.7 | 814 | $335.46 \%$ | 54.00 | ${ }_{\text {\＄15，} 5.28}$ | $35.46 \%$ | ${ }_{55}$ | \＄10 | 2016 | ${ }_{150}$ | ${ }_{\text {S0，}}$ | ${ }_{614}$ |
| 2097 | ${ }^{378}$ | ${ }_{5737}$ | Stiot | 5 | ¢ | ${ }_{5}^{5.79 \%}$ | \％ $35.486 \%$ | Stis | ${ }_{2018}^{2017}$ | \＄51．18 | 514 | 35．48\％\％ | ${ }^{84.986}$ | ¢ 854.43 | 35 4eem | ${ }^{35}$ | 516 | 2017 | 150 | ${ }^{50.9772}$ | \＄1468 |
| ${ }^{2019}$ | 873 | ${ }^{5370}$ | 8190 | ${ }_{500}^{500}$ | ${ }_{\substack{3723}}^{3769}$ | 5，70\％ | 35．88\％\％ | Stis | 2018 | 51， 51.8 | （144 | ${ }^{35.4 .48 \%}$ | ${ }^{3.9898}$ | \＄15．54 |  | se | \＄10 | ${ }^{2016}$ | 450 | 80．07998 | 81978 |
| 2018 | 87\％ | ${ }_{5358}^{5358}$ | ${ }^{4} 884$ | ¢ | ${ }_{\substack{\text { Semer }}}^{\text {seas }}$ | ${ }^{\text {s．7．7\％}}$ | 3544\％ | 514 514 514 | ${ }^{2019}$ | \＄8120 | \＄14 | $35.48 \%$ | \＄4．86 | צ：1574 | ${ }^{35.454 \%}$ | ${ }^{36}$ | \＄11 | ${ }^{2019}$ | 400 | ${ }^{5099997}$ | ${ }^{5148}$ |
| 2020 | ＊28 | ${ }_{5238}$ | ${ }^{4788}$ | ${ }_{883}$ | ${ }_{\text {sers }}^{\text {seas }}$ | $5.78 \%$ | 354886 | ${ }_{513}^{514}$ | ${ }_{2024}^{2020}$ | （122 | 815 | ${ }^{35} 540 \%$ | 85532 |  | － $35.46 \%$ | 5080 | S 81 | ${ }_{2021}^{2020}$ | 150 | Scyas | \＄1590 |
| 2037 | 307 | 8335 | 3172 |  | ${ }_{\text {sess }}$ | $5.78 \%$ | ${ }^{35}$ | \＄13 | ${ }_{202}^{2024}$ | ¢ | Stis | ¢3548\％ | ${ }_{555}^{553}$ | \＄1808 | ${ }_{35}^{3545 \%}$ | ${ }_{\text {se }}^{36}$ | \％ 81 | $\underset{2022}{2021}$ | ${ }_{\substack{750 \\ 150 \\ \hline \\ \\ \hline \\ \hline}}$ | 81．0648 | \＄184 |
| ${ }_{2023}^{2028}$ | 505 |  | \＄168 | si7 |  | 5， $5.78 \%$ | 354．48\％ | ${ }_{513}^{513}$ | 2023 | ${ }_{\text {S }}$ | ${ }_{815}$ | 3x $40 \%$ | ${ }_{56538}$ | ${ }_{81929}$ | 35．48\％ | 36 | 314 | ${ }_{2003}$ | iso | $5{ }^{5}$ | \＄153 |
| ${ }^{2029}$ | 88 | 5338 | \＄150 | ${ }^{97}$ | 8501 | 5．72\％ | 35．se\％ | 512 | ${ }^{2024}$ | 51.27 | \＄15 | 35．40\％ | \＄5．32 | 51.8 .4 | 3546\％ | s6 | 311 | 2424 | ${ }^{150}$ | 81，0902 | \＄158 |
| 2025 | 558 | 5243 | 3151 | ${ }^{866}$ | ${ }^{557} 7$ | 5．79\％ | 35．49\％ | 518 | ${ }^{2035}$ | 8178 | 815 | 3546\％ | ${ }_{5532}$ | stert | 35．45\％ | ${ }^{518}$ | ${ }^{34} 4$ | ${ }^{2} 225$ | ${ }^{150}$ | $\pm 10595$ | 8456 |
| ${ }_{2027}^{2028}$ | 357 | ：zas | ＊48 | ${ }^{\text {ses }}$ | ${ }_{5559}$ | $5.79 \%$ | 35．45\％ | 511 | 2026 | 81.28 | $5: 5$ | 35．4e\％\％ | 55.32 | ${ }^{\text {s，} 18.68}$ | 35．40\％ | ${ }^{\text {sid }}$ | ${ }^{341}$ | 2028 | 150 | S1．081： | \＄158 |
| $\underset{\substack{2027 \\ 2028}}{ }$ | ${ }_{553} 5$ | （isk | （ ${ }_{\substack{\text { 314，} \\ \mathbf{1 3 6}}}$ | ${ }_{500}$ | （8532 | ${ }_{5}^{5.79 \%}$ | （35．46\％ |  | ${ }_{2028}^{2027}$ | （\％．30 | \％ |  | 858．87 | （ $\begin{aligned} & 817.05 \\ & 817.22\end{aligned}$ | － | ${ }_{\substack{36 \\ 56}}$ | （812 | ${ }_{2028}^{2027}$ | 150 <br> 150 <br> 1 | \＄ $\begin{aligned} & 510217 \\ & 51.0824\end{aligned}$ | ${ }_{\substack{159 \\ 816 \%}}$ |

## St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Heating System |



## Appliance Type

Heating System

| Fuel Rate Examater |  |  |  |
| :---: | :---: | :---: | :---: |
| Fuen Rate Ematar |  |  | 04 |
| Gas Austomes Chusfig Exeatator |  |  |  |
|  |  |  |  |
| Tatay |  |  |  |
| Revenue - Energy Charge |  |  |  |
| I | 2 | ${ }^{3}$ | 23 |
|  |  |  |  |
| 2008 | ${ }^{179}$ | 8 smb | 5122 |
| 2910 | ${ }_{178}$ | s, mses | \$122 |
| 204 | ${ }_{17}$ | 50.6863 | 5122 |
| 2042 | 178 | s, 8.838 | 3122 |
| 2943 | 178 | ¢. 8883 | s422 |
| 2034 | 178 | 50.8863 | ${ }^{5122}$ |
| 2046 | 178 |  | 5122 |
| 201\% | \%8 | 50,6es | \$122 |
| 2097 | 178 | sucees | 5122 |
| 2076 | ${ }^{178}$ | s, | 5182 |
| 2819 | ${ }^{178}$ | 50, mis | 5112 |
| ${ }^{2029}$ | 178 | ${ }^{\text {¢ ¢ ¢ ¢ез }}$ | ${ }^{1272}$ |
| 2ay | 178 | ${ }^{\text {su, } 8883}$ | \$1722 |
|  | 178 | 20885 | 5122 |
| ${ }^{2023}$ | 178 | 30.6863 | *122 |
| ${ }_{2028}$ | ${ }_{178}^{178}$ |  | \$122 |
| 2026 | ${ }^{75}$ | to.68e3 | 3122 |
| 2027 | 178 | so.es6 | 5122 |
| 2028 | 178 | 595086 | 5122 |


| Investment Carrying Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | 2 | 3 | 4 | $\pm$ | 8 | 1 | - 6 | $8 \cdot 78$ |
|  | Sumy | thealtommeni | Sosices |  | Toxal | ©ssf | Refico 5 Thermb | Invesmert |
|  |  |  | $\pm$ Lime | \% | Investrant | Ofoca | Cansmeat To Totat |  |
|  | \% | 5600 | \$257 | 3130 | 3867 | 5.79\%\% | 40.18 sm |  |
| 2011 | ${ }^{997}$ | \$sas | 5248 | \$125 | \%s5s | 5.79\% | 40.45\% | 52 |
| 2011 | 584 | 5488 | 5234 | \$129 | 5823 | 5.7\%\% | ${ }^{40} 8.80 \%$ | 524 |
| 2012 | 509 | 3453 | ${ }^{8238}$ | ${ }^{1415}$ | Ssezt | $5.79 \%$ | $40.19 \%$ | ${ }^{82}$ |
| 2043 | ${ }^{86}$ | 5438 | ${ }^{278}$ | 810 | set | $5.79 \%$ | 40.18\% | ${ }^{28}$ |
| 2034 | ${ }_{5}^{585}$ | ${ }^{3426}$ | ${ }^{8278}$ | 8150 | 8e33 | ${ }^{5.79 \%}$ | 40.10\% | si8 |
| ${ }^{2075}$ | $3_{23}$ | 5410 | 5211 | \$122 | ${ }_{5806}$ | $5.780 \%$ | 40.18\% |  |
| 2015 | ${ }^{878}$ | ${ }^{3366}$ | 5238 | ${ }^{398}$ | 877 | $578 \%$ | 40.18\% | ${ }^{1818}$ |
| ${ }^{2014}$ | 876 | ( | ${ }^{3167}$ |  | \$750 | 570\% | ${ }^{40.18 \%}$ | \$17\% |
| 2019 | 83 | 5370 | 8180 | sitio | 3723 | 5.78\% | 4018\% | 817 |
| 2019 | ${ }^{17}$ | ${ }^{358}$ | 8184 | \%at | \$689 | 5.79\% | $4018 \%$ | 816 |
| 2020 | 88 | s4, | \%78 | ${ }_{88} 8$ | S676 | $5.78 \%$ | ${ }^{40} 19 \%$ | ${ }^{516}$ |
| 2021 | 567 | ${ }^{235}$ | $8: 72$ | 560 | 5654 | 5.79\% | 40.88\% | ${ }^{15}$ |
| 2022 | ses | \$29 | 818 | 87 |  | 5.79\% | 40.19\% | ${ }^{315}$ |
| 2023 | 883 | 3, 3 | s184 | ${ }^{574}$ | Ss9 | $5.70 \%$ | 40.88\% | \$14 |
| 2024 | ${ }^{501}$ | \$303 | 15 | ${ }^{871}$ | ${ }_{5} 59$ | $5.78 \%$ | 40.18\% | \$14 |
| 2085 | ss | \$293 | 151 | ${ }^{88}$ | 5687 |  | 46.19\%\% | 543 |
| 2238 | \%7 | 5283 | \$148 | ${ }_{\text {sa }}$ | sss 1 | 578\% | 660 $18 \%$ | ${ }^{813}$ |
| 2027 | ${ }^{3} 5$ | 5274 | 8141 | ${ }^{562}$ | \$532 | 572\% | 40, 18\% | \$12 |
| 2029 | \% | 3295 | \$136 | 300 | \$514 | 5.79\% | 46.19\% | 512 |


| incremenat Customer Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | s | 4 |  | ${ }^{-1}$ | $\underline{C}$ | \% $=8^{2}$ | - $\quad$ 5+8 |
|  | Mortal | Anvica | Raic Themens To | Anuwa fatio | Ansuis | Ravio Thams To | Ansuat Rxat | Totat inctemeralai |
| ${ }^{\text {Yax }}$ |  |  | Trata consumed | $\frac{\text { adm Cost }}{5522}$ | ${ }_{\text {comacos }}$ | Toutacresmar | $\frac{0878}{580}$ | $\frac{\text { Ader } 8 \text { OSN } \operatorname{cost}}{\text { sit }}$ |
| 2010 | 51.10 | ${ }_{513}$ | 60 8 E\% | 4522 | \$14.38 | 40.164 | ${ }_{66}$ | si1 |
| 294 | 51.11 | 813 | 40.88\% | \$522 | \$12,54 | 46. $88 \%$ | 56 | ${ }^{3}$ |
| 2012 | \$1.12 | 813 | 40.18\% | \$532 | 514.88 | 40.16\% | st | 31 |
| ${ }_{2014}^{2013}$ | \$1,13 | 814 | 40.88\% | ${ }^{580}$ | S14, ${ }^{\text {che }}$ | 40, $588 \%$ | \% | S12 |
| 2014 | 815 | ${ }^{194}$ | 20.78\% | Ssis | P4, | 40.18\%\% | ${ }_{88}^{88}$ | \$12 |
| 2215 | \$1. | ${ }^{514}$ | 20.18\% | \$5.83 | 8153 | 40.18\% | ${ }^{3}$ | \$12 |
| ${ }^{2018}$ | s19 | \% | 40 69\% | \$563 | ${ }^{35} 58$ | 40.18\%\% | 5 | 112 |
| 2007 | S1.19 | 814 | 40.14\% | \$5633 | \$1548 | 40.79\%\% | 88 | 812 |
| 2348 | \$1.19 | 814 | 40, $89 \%$ | ${ }_{5583}$ | ${ }^{315595}$ | $80.18 \%$ | \% | ${ }^{12}$ |
| ${ }^{2015}$ | 55.20 | S14 | 40.19\%\% | ${ }^{35.63}$ | 315.74 | 10.79\%\% | ${ }_{86} 8$ | ${ }^{12}$ |
| 2020 | \$122 | \$15 | 4693\% | ${ }^{5803}$ | \$15,00 |  | ${ }_{\substack{36 \\ 86}}$ | 312 |
| 2229 | 31.23 | \$15 | 60.8\% | \$8.63 | \$16.96 | 40.18\% | ${ }^{56}$ | 12 |
| 2022 | ${ }^{3124}$ | \$15 | 40186 | 88.93 | \$1622 | 46 184\% | 57 | ${ }^{3}$ |
| 2023 | 5125 | 815 | $40.18 \times$ | 56.33 | S18,38 | 40 78\% | 87 | 813 |
| 2024 | \$1.27 | 815 | ${ }^{40} 18 \%$ | stam | ${ }^{318.54}$ | 40.18\% | 87 | 813 |
| 2025 | \$1,28 | 815 | 4218\% | $46 \%$ | \$16.31 | 40.18\% | 87 | 13 |
| 2028 | \$8\%8 | 515 | 4019\%\% | 5683 | ${ }^{316.888}$ | a0.16\% | 87 | 813 |
| ${ }^{23027}$ | \$1.30 | 518 | 10.18\%\% | \$543 | ${ }^{517.06}$ | 40, $8 \mathrm{P} \%$ | 8 | \$13 |

\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Gas Costs} <br>
\hline 1 \& 2 \& $-3$ \& 23 <br>
\hline \& Trems \& Pref Them \& Gats Sumily <br>
\hline ${ }^{\text {reer }}$ \& \& Sprychas \& cost <br>
\hline 2009 \& ${ }^{178}$ \& ${ }^{\text {sababed }}$ \& ${ }^{5159}$ <br>
\hline 270 \& 178 \& \& <br>
\hline 2012 \& ${ }^{178}$ \&  \&  <br>
\hline 2013 \& \%e \& 50, 8323 \& 5468 <br>
\hline 2014 \& ${ }^{178}$ \& sastif \& *** <br>
\hline 2015 \& ${ }^{78}$ \& 50,9511 \& ${ }_{5169}$ <br>
\hline 2000 \& 178 \& so. 8 ees \& 5171 <br>
\hline 2017 \& ${ }^{178}$ \& sabroz \& \$173 <br>
\hline 2098 \& ${ }^{178}$ \& sa, 978 \& \$174 <br>
\hline 2018 \& ${ }^{778}$ \& sobest \& ${ }^{6178}$ <br>
\hline 2029 \& 78 \& so.8Pee \& 5178 <br>
\hline  \& \% \& 5t Oreat \& 5483 <br>
\hline 2027 \& ${ }^{788}$ \& 81.0197 \& 5882 <br>
\hline 2023
2024

2020 \& ${ }^{178}$ \& 51.0298 \& ${ }^{5883}$ <br>
\hline ${ }^{2024}$ \& \%78 \& \$1, M002 \& 5185 <br>
\hline ${ }_{2026}$ \& ${ }^{78}$ \& \% \& 5887 <br>
\hline 2027 \& \%88 \& 迷 \& \$199 <br>
\hline ${ }_{2228}$ \& (178 \& ${ }_{8}^{810,082}$ \& ( <br>
\hline
\end{tabular}

# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results 

| Appliance Type |
| :--- |
| Clothes Drying |



| Fua Rus Ematar | 1.0\% |  | 3,30\% |
| :---: | :---: | :---: | :---: |
| Gas Enemy Chasge Escalat | \% | Deswetation Rut - Devtopmen Maif | 3.30\% |
| Gas Cusiomee Chage Essalat | 0\% | Deporimaten Reta - Sevics Line | 3.30\% |
| Cosmintaten Escalitor | 1.0\% | Deprocammen Rat - niter | 4.00\% |



| Revenue - Customer Charge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | ${ }^{3}$ | 4 | 4.3 |
|  | Monthy |  | Raico Themm |  |
|  | Cingromel | Ampuas Custa | To Total | Pemarse man |
| 208 | $\frac{\text { charse }}{\text { Bise }}$ | ${ }_{\text {chatat }}$ | $\frac{\text { conemme }}{11208}$ | Cusametichar |
| 0 | 51880 | 51820 | 120 | S22 |
| 204 | 518.00 | 123,20 | $1228 \%$ | ${ }^{322}$ |
| 2 tr | 8160 | sizeze | 1128\% | 322 |
| 2012 | 51600 | \$12, 08 | 11.268 | ${ }^{222}$ |
| 2013 | 51008 | S12,000 | ${ }^{11,888}$ | ${ }^{322}$ |
| 2014 | \$16\% | s, 192.000 | 1120\% | 522 |
| 2045 | 116,00 | :122,00 | $11.2 \%$ | 322 |
| ${ }^{2016}$ | 818.00 | 8:6200 | 11.2868 | 522 |
| 204 | \$1600 | \$162.00 | ${ }^{11.29 \%}$ | 322 |
| ${ }^{2018}$ | \$10.00 | \$192.00 | 11.29\% | 32 |
| 20 ¢09 | \$16.00 | \$162.00 | 1.208 | 522 |
| 2020 | \$16.00 | \$192.50 | $11.20 \%$ | 522 |
| 2881 | \$10.00 | \$192.00 | 11.20\% | 523 |
| 2022 | \$16.00 | ${ }^{5192000}$ | 12\% | ${ }^{22}$ |
| 2023 | ${ }^{1618.50}$ | \$182.00 | 112\% | 522 |
| 2024 | 313.00 | \$192.00 | \% $228 \%$ | 32 |
| 2028 | St6.0\% | \$162.00 | 11.20\% | 323 |
| ${ }^{2026}$ | 51800 | \$ta2.00 | $11.28 \%$ | 522 |
| 2027 | \$15.303 | 5,182.00 | 11.28\% | 82 |
| 2026 | \$10.03 | $\operatorname{staza}$ | 11.284 | 522 |


|  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


|  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Therms | Par fteral | Gas Supaly |
| Yes | ${ }_{5}$ |  | ${ }_{\text {cost }}^{\text {cos }}$ |
|  |  |  |  |
| 2011 | 50 | \$0.814 | ${ }_{546}$ |
| 2012 | 50 | 50.8231 | s46 |
| 2013 | 50 | 50.0.33 | s47 |
|  | 50 | 50.4411 | 59 |
| 2015 | 0 | 50.8511 | 48 |
| 2015 | ${ }_{50}$ | 50.8906 | 54 |
| 207 | \% | 30.4702 | sab |
| 2018 | 50 | 50.arem | sab |
| 2019 | 50 | s0.8867 | s49 |
| 2509 | ${ }^{50}$ | so.9306 | 350 |
| 2024 | 50 | St,00m | Ssa |
| 2023 | 50 | 51.06? | 5 |
| 2025 | 0 | 31.0289 | ${ }^{51}$ |
| 2024 | ${ }^{0}$ | \$1,4982 | \$32 |
| 2025 | 5 | \$1.0606 | ${ }^{53}$ |
| ${ }^{2028}$ | 85 | 51.0611 | \$3 |
| ${ }^{2027}$ | 50 | 51.072 | 354 |

## St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program RIM Test - Results

| Appliance Type |
| :--- |
| Cooking |





| Incremental Customer Cosis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 3.384 | 8 | Rano Therss To | Anvai Rxio | 5 |
|  | mornty Anmet Ratio Thems To |  |  | Antasatzaic | Annum |  |  | Totay mexamatias |
| ${ }_{\text {Y Par }}$ |  |  | Torat Consuned | ${ }^{\text {And }}$ Cost |  |  | $\frac{084}{51}$ |  |
| 2010 | 51．10 | ${ }_{513}$ | 10．16\％ | \％${ }^{2}$ | ${ }_{51439}$ | $10.10 \%$ | \＄1 | ${ }_{3}$ |
| 2017 | 81.11 | ${ }^{13}$ | 10．40\％ | ${ }_{1} 132$ | \＄19．54 | 10．19\％ | 51 | 33 |
| 2012 | 53．12 | \＄13 | t0．10\％ | \＄ 132 | 31.968 | 10．64\％ | 81 | ${ }^{3}$ |
| 2013 | 31.3 | 514 | 10．18\％ | 51.42 | ［14，43 | 10．18\％ | 52 | ${ }^{3}$ |
| 2014 | 31.15 | 514 | 10．1040 | 81.42 | \＄14．98 | ＊0．06\％ | ＊2 | ${ }^{3}$ |
| ${ }_{2015}^{2015}$ | ${ }_{\substack{81,18 \\ 81,7}}$ | 514 | 10．19\％\％ | \＄1，42 | S15，13 | 10， $10.10 \%$ | 52 | ${ }^{33}$ |
| ${ }^{2016}$ | 81.17 | \＄14 | 10．19\％\％ | \＄142 | ${ }^{\mathbf{1 5 1 5} 28}$ | 10．19\％\％ | 32 | ${ }^{33}$ |
| 2017 | \＄1． | \％14 | 10， $18 \%$ | 8：42 | \＄55，43 | 10．10\％ | 52 | 3， |
| 2018 | 5148 | 814 | ＋0．88\％ | ${ }^{51.12}$ | ${ }^{31559}$ | 10．6\％ | \＄2 | 3 |
| ${ }^{2019}$ | 51.20 | \＄148 | 10．48\％ | 思，420 | \＄15．74 | 10．0．6\％ | 52 | 8 |
| ${ }^{2023}$ | ${ }^{3122}$ | \＄ 815 | 10 棫 | ${ }^{\mathbf{5 1 5 2}}$ | ${ }^{815.90}$ | to $10 \%$ | 32 | ${ }^{83}$ |
| ${ }^{2023}$ | ${ }_{\text {\＄1，23 }}$ | \＄15 | ${ }^{10.1959 \%}$ | \＄1．52 | \＄15．06 | 10，48\％ | ${ }^{52}$ | 53 |
| ${ }_{2022}^{2022}$ | \＄124 | \＄158 | 10．99\％ | \＄152 | 510.22 | $1018 \%$ | 52 | 3 |
| 2028 | Sti2s | 515 | 10．18\％ | ${ }_{81,52}$ | S18，38 | 10．10\％ | \＄2 | 5 |
| ${ }^{2024}$ | si．27 | \＄15 | 1918\％ | 81.58 | 518.54 | $10.100^{\%} \%$ | 52 | ${ }^{3}$ |
| 2025 | \＄1．28 | \＄15 | ta $18 \%$ | \＄1．52 | sit．74 | 10．16\％ | 52 | 5 |
| ${ }^{2029}$ | \＄12， | 515 516 | 10．15\％ | ${ }^{81.52}$ | ${ }_{\text {\％}}$ | 10．10\％ | s2 | ＊ |
| 2027 | 51.30 | ${ }_{516}^{516}$ | 10.188 | ${ }_{8183}$ | 517．05 | 70．9\％\％ | 52 | \＄3 |
| 2028 | S132 | 816 | 10．40\％ | ：183 | 817.22 | that\％ |  | 33 |


| Gas Costs |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 | 2 | －3 | 23 |
|  | thems | Commony gas | Gas sundip |
| 2009 | 45 | supplicasest | ${ }_{\substack{\text { cost } \\ \text { cosid }}}$ |
| 2010 | 45 | \＄0 \％at | 54 |
| 291 | 45 | 90，949 | sat |
| 2012 | ${ }^{4}$ | s0 923） | saz |
| 2013 | 45 | s0．9323 | ${ }^{142}$ |
| 2014 | 45 | 50847 | S42 |
| 2015 | ${ }^{4}$ | 80，0811 | ${ }_{403}$ |
| 2945 | 45 | S0 890\％ | 543 |
| 2017 | ${ }^{45}$ | ${ }^{30.9802}$ | Sce |
| ${ }^{2648}$ | ${ }_{4}$ | so 9\％99 | 54 |
| 298 | 45 | so | s48 |
| ${ }^{2} \times 2$ | 45 | s0，9968 | 545 |
| 2021 | 45 | 8． Cocge | 545 |
| 2072 | ${ }^{4}$ | 510197 | 546 |
| 2023 | 45 | 510208 | 546 |
| 2024 | 45 | ${ }^{\text {s }}$ Stama | 547 |
| 2025 | ${ }^{4}$ | \＄1．6560 | 518 |
| 20］ | ${ }^{4}$ | 5：061 | 䊾 |
| ${ }^{2027}$ | ${ }_{45}^{45}$ | \＄8，077 | 5 |
| 2028 | 45 | S1．0624 | 549 |

# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Cost Effective Results 

| Appliance Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benofits |  |  |  | Costs |  |  |  |  |  |  |  |  |
| Year | Year Number | Avoided Propane Cost | NG Rebate | Avoided Propane Appliance O\&M | total benefits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance O\&M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$508 | \$350 | \$60 | \$918 | 0 | \$0 | 0 | \$100 | \$60 | \$168 | \$128 | \$81 | \$537 |
| 2010 | 2 | \$509 | 0 | \$61 | $\$ 570$ | 0 | \$0 | 0 |  | \$61 | \$169 | \$128 | \$81 | \$439 |
| 2011 | 3 | \$511 | 0 | \$61 | \$572 | 0 | \$0 | 0 |  | \$61 | \$171 | \$128 | \$81 | \$442 |
| 2012 | 4 | \$512 | 0 | \$62 | \$574 | 0 | \$0 | 0 |  | \$82 | \$173 | \$128 | \$81 | \$444 |
| 2013 | 5 | \$514 | 0 | \$62 | \$576 | 0 | \$0 | 0 |  | \$62 | \$174 | \$128 | \$81 | \$446 |
| 2014 | 6 | \$515 | 0 | \$63 | \$578 | 0 | \$0 | 0 |  | \$63 | \$176 | \$128 | \$81 | \$449 |
| 2015 | 7 | \$517 | 0 | \$64 | \$580 | 0 | \$0 | 0 |  | \$64 | \$178 | \$128 | \$81 | \$451 |
| 2016 | 8 | \$518 | 0 | \$64 | \$582 | 0 | \$0 | 0 |  | \$64 | \$180 | \$128 | \$81 | \$463 |
| 2017 | 9 | \$519 | 0 | \$65 | \$584 | 0 | \$0 | 0 |  | \$65 | \$181 | \$128 | \$81 | \$466 |
| 2018 | 10 | \$521 | 350 | \$66 | \$937 | 421 | (\$659) | 239 |  | \$66 | \$183 | \$128 | \$81 | \$458 |
| 2019 | 11 | \$522 | 0 | \$68 | \$589 | 0 | \$0 | 0 |  | \$68 | \$185 | \$128 | \$81 | \$481 |
| 2020 | 12 | \$524 | 0 | \$67 | \$591 | 0 | \$0 | 0 |  | \$67 | \$187 | \$128 | \$81 | \$483 |
| 2021 | 13 | \$525 | 0 | \$68 | \$593 | 0 | \$0 | 0 |  | \$68 | \$189 | \$128 | \$81 | \$486 |
| 2022 | 14 | \$527 | 0 | \$68 | \$595 | 0 | \$0 | 0 |  | \$68 | \$191 | \$128 | \$81 | \$466 |
| 2023 | 15 | \$528 | 0 | \$69 | \$597 | 0 | \$0 | 0 |  | \$69 | \$193 | \$128 | \$81 | \$471 |
| 2024 | 16 | \$530 | 0 | \$70 | \$599 | 0 | \$0 | 0 |  | \$70 | \$195 | \$128 | \$81 | \$474 |
| 2025 | 17 | \$531 | 0 | \$70 | \$601 | 0 | $\$ 0$ | 0 |  | \$70 | \$196 | \$128 | \$81 | \$476 |
| 2026 | 18 | \$533 | 0 | \$71 | \$604 | 0 | \$0 | 0 |  | \$71 | \$198 | \$128 | \$81 | $\$ 479$ |
| 2027 | 19 | \$534 | 0 | \$72 | \$006 | 0 | \$0 | 0 |  | \$72 | \$200 | \$128 | \$81 | \$482 |
| 2028 | 20 | \$535 | 0 | \$72 | \$808 | 0 | \$0 | 0 |  | \$72 | \$202 | \$128 | \$81 | \$484 |
|  |  |  |  | Prasent Value of Benventw | \$8,208 |  |  |  |  |  |  | Present Value of Costs |  | \$4,848 |
|  |  |  |  |  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.36 |

# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 

## Residentiai Propane Distribution System Conversion Program

Participants Test - Data


St. Joe Natural Gas - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Tankless Water Heating |


|  |  | Beneflts |  |  |  | Costs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Yaar Number | Avoided Propane Cost | NG Rebate | Avoided Propane Applance O8M | TOTAL benefits | NG Equipment Cost | Propane Equipment \& Installation Cost | NG Installation Cost | NG Conversion Cost | NG Appliance 0 \& M | NG Supply Cost | NG Energy Charge | NG 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 |
| 2009 | 1 | \$448 | \$450 | \$60 | \$958 | \$0 | \$0 | \$0 | \$100 | \$60 | \$148 | \$113 | \$75 | \$486 |
| 2010 | 2 | \$449 | 0 | \$61 | \$510 | 0 | \$0 | 0 |  | \$61 | \$149 | \$113 | \$75 | \$398 |
| 2011 | 3 | \$451 | 0 | \$61 | \$512 | 0 | \$0 | 0 |  | \$61 | \$151 | \$113 | \$75 | \$400 |
| 2012 | 4 | \$452 | 0 | \$62 | \$514 | 0 | \$0 | 0 |  | \$62 | \$152 | \$113 | \$75 | \$402 |
| 2013 | 5 | \$453 | 0 | \$62 | \$516 | 0 | \$0 | 0 |  | \$62 | \$154 | \$113 | \$75 | \$404 |
| 2014 | 6 | \$455 | 0 | \$63 | \$518 | 0 | $\$ 0$ | 0 |  | \$63 | \$155 | \$113 | \$75 | \$407 |
| 2015 | 7 | \$456 | 0 | \$64 | \$820 | 0 | $\$ 0$ | 0 |  | \$64 | \$157 | \$113 | \$75 | \$409 |
| 2016 | 8 | \$457 | 0 | \$64 | \$521 | 0 | $\$ 0$ | 0 |  | \$64 | \$158 | \$113 | \$75 | \$411 |
| 2017 | 9 | \$458 | 0 | \$65 | \$523 | 0 | \$0 | 0 |  | \$65 | \$160 | \$113 | \$75 | \$413 |
| 2018 | 10 | \$460 | 0 | \$66 | \$525 | 0 | \$0 | 0 |  | \$66 | \$162 | \$113 | \$75 | \$416 |
| 2019 | 11 | \$461 | 0 | \$66 | \$527 | 0 | $\$ 0$ | 0 |  | \$66 | \$163 | \$113 | \$75 | \$448 |
| 2020 | 12 | \$462 | 0 | \$67 | \$529 | 0 | $\$ 0$ | 0 |  | \$67 | \$165 | \$113 | \$75 | \$420 |
| 2021 | 13 | \$463 | 0 | \$68 | \$531 | 0 | \$0 | 0 |  | \$68 | \$167 | \$113 | \$75 | \$422 |
| 2022 | 14 | \$465 | 0 | \$68 | \$533 | 0 | \$0 | 0 |  | \$68 | \$168 | \$113 | \$75 | \$425 |
| 2023 | 15 | \$466 | 0 | \$69 | \$535 | 0 | \$0 | 0 |  | \$69 | \$170 | \$113 | \$75 | \$427 |
| 2024 | 16 | \$467 | 0 | \$70 | 8537 | 0 | \$0 | 0 |  | \$70 | \$172 | \$113 | \$75 | \$429 |
| 2025 | 17 | \$469 | 0 | \$70 | \$539 | 0 | \$0 | 0 |  | \$70 | \$173 | \$113 | \$75 | \$432 |
| 2026 | 18 | \$470 | 0 | \$71 | \$841 | 0 | \$0 | 0 |  | \$71 | \$175 | \$113 | \$75 | \$434 |
| 2027 | 19 | \$471 | 0 | \$72 | \$543 | 0 | \$0 | 0 |  | \$72 | \$177 | \$113 | \$75 | \$437 |
| 2028 | 20 | \$472 | 450 | \$72 | \$995 | 1,219 | (\$1,746) | 527 |  | \$72 | \$179 | \$113 | \$75 | $\$ 439$ |
|  |  |  |  | Present Value of Eenerits | \$5,634 |  |  |  |  |  |  | Prement Value of Costs |  | \$4,132 |
|  |  |  |  |  |  |  |  |  |  |  | Benefit/Cost Ratio |  | 1.36 |

# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Tankless Water Heating |  |  |  |
| Excalition Reot |  | LP Delmargh rate | 0.0\% |
| OSM Experse | 1.0\% | Nis fuel Rate | 1.0\% |
| tP Fiuel Cose | 1.0\% | NG Base Rates | 0.0\% |


| Propane Cost - Table 1 |  |  |  |  | Natuarl Gas Supply Cost - Table 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { Cost Por } \\ \text { Oallon } \end{gathered}$ | Annual Emilions | Tax Rate | Fropene Coust | Vow | $\begin{aligned} & \text { Cont Per } \\ & \text { Therm } \end{aligned}$ | Anmual Thernas | Tax Rato | NG cont |
| A | 8 | c | 0 | $\mathrm{B}^{\circ} \mathrm{C} \cdot{ }^{\circ}+\mathrm{D}+\mathrm{D}$ | A | 8 | c | D | $8{ }^{\circ} \mathrm{CO}(1+0)$ |
| 2009 | \$25469 | 184 | 7.5\% | 44 | 2009 | 50.8960 | 150 | 10\% | \$148 |
| 2010 | \$2.5533 | 164 | 7.5\% | 548 | 2010 | \$0.9049 | 150 | 10\% | \$149 |
| 2041 | \$2.5605 | 164 | 7.5\% | 4 | 2041 | 30.9140 | 150 | 10\% | 4151 |
| 2012 | 52.5676 | 164 | 7.5\% | 345 | 2012 | 50.9231 | 150 | 10\% | \$152 |
| 2013 | \$2.5750 | 184 | 7.5\% | 945 | 2013 | \$0.9323 | 150 | 10\% | \$154 |
| 2014 | \$2.5823 | ${ }^{184}$ | 7.5\% | \$45s | 2014 | \$0.9417 | 150 | 10\% | \$1485 |
| 2015 | \$2.5888 | 184 | 7.5\% | 45s | 2015 | \$0.9511 | 150 | 10\% | \$157 |
| 2016 | \$2.5968 | 184 | 7.5\% | 467 | 2015 | \$0.880\% | 150 | 10\% | *158 |
| 2017 | \$20041 | 184 | 7.5\% | 488 | 2047 | \$0.9702 | 150 | 10\% | \$150 |
| 2018 | \$2.6113 | 164 | 7.5\% | uso | 2015 | \$0.9799 | 150 | 10\% | \$182 |
| 2019 | \$2.5188 | 184 | 7.5\% | 1451 | 2090 | \$0,8697 | 150 | 10\% | \$483 |
| 2020 | \$2.6259 | 164 | 7.5\% | 4 \% | 2020 | \$0.9996 | 150 | 10\% | 3185 |
| 2021 | \$2.6331 | 184 | 7.5\% | 948 | 2021 | \$1.008* | 150 | 10\% | \$187 |
| 202 | \$2.8404 | 184 | 7.5\% | H4s | 2022 | \$1.0197 | 150 | 10\% | \$188 |
| 2023 | 52.84\% | 104 | 7.5\% | \%es | 2023 | 51.0298 | 150 | 10\% | \$170 |
| 2024 | \$2.0540 | 164 | 7.5\% | \$407 | 2024 | \$1.0102 | 150 | 10\% | 4172 |
| 2025 | \$2.6822 | 104 | 7.5\% | 498 | 2025 | \$1.0506 | 150 | 10\% | \$173 |
| 2028 | \$2.0694 | 14 | 7.3\% | 478 | 2025 | \$1.0811 | 150 | 10\% | \$178 |
| 2027 | \$20767 | 104 | 7.5\% | 47 | 2027 | \$1.0717 | 150 | 10\% | 177 |
| 2028 | 52.8838 | 164 | 7.5\% | \$472 | 2028 | \$1.0624 | 150 | 10\% | \$178 |


| Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | rate per |  Thermat | Trax Rule | ng cout |
| A | B | $c$ | 0 | $\mathrm{BC} \cdot(1+\mathrm{D})$ |
| 2009 | 50.6083 | 150 | 10\% | \$113 |
| 2010 | 50.8883 | 150 | 10\% | \$113 |
| 2011 | \$0.6863 | 150 | 10\% | \$113 |
| 2012 | \$0.8363 | 150 | 10\% | \$113 |
| 2013 | 50.8863 | 150 | 10\% | $\$ 113$ |
| 2014 | 50.8883 | 150 | 10\% | \$113 |
| 2015 | \$0.6883 | 150 | 10\% | \$113 |
| 2018 | 50.8863 | 150 | 10\% | *113 |
| 2017 | 50.8863 | 150 | 10\% | \$133 |
| 2018 | 50.6803 | 150 | 10\% | \$113 |
| 2019 | 50.8083 | 150 | 10\% | 8113 |
| 2020 | \$0.6883 | 150 | 10\% | \$113 |
| 2021 | \$0.8883 | 150 | 10\% | *113 |
| 2022 | \$0.8863 | 150 | 10\% | \$113 |
| 2023 | 50.8883 | 150 | 10\% | 413 |
| 2024 | 50.8863 | 150 | 10\% | 1113 |
| 2025 | 50.6863 | 150 | 10\% | \$143 |
| 2025 | \$0.8883 | 150 | 10\% | \$113 |
| 2027 | 50.6983 | 159 | 10\% | \%14 |
| 2028 | 50.8863 | 150 | 10\% | \$113 |


| Natural Gas Customer Charge - Tabie 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Monthy Charger | $\begin{aligned} & \text { Anfung } \\ & \text { Cumboner } \\ & \text { Charpe } \end{aligned}$ | $\begin{aligned} & \text { Appllanco } \\ & \text { Ansual } \\ & \text { Therme } \end{aligned}$ | $\begin{aligned} & \text { Totint } \\ & \text { Annume } \\ & \text { Therm: } \end{aligned}$ | $\begin{aligned} & \text { Rutio: } \\ & \text { Appllimeice to } \\ & \text { Totan } \end{aligned}$ | Tax Retre | Proftutad Customer charge |
| A | 8 | c | D | E | OE | 0 | Crioreriliz |
| 2009 | \$18.00 | \$182.00 | 150 | 43 | 35.46\% | 10\% | ${ }^{375}$ |
| 2010 | 818.00 | \$192.00 | 150 | 43 | 35.46\% | 10\% | 776 |
| 2011 | 516.00 | \$182.00 | 150 | 423 | 35.46\% | 10\% | 876 |
| 2012 | \$18.00 | \$108.00 | 150 | 423 | 35.46\% | 10\% | 476 |
| 2013 | \$18.00 | \$192,00 | 150 | 423 | 35.46\% | 10\% | 475 |
| 2014 | \$16.00 | \$192,00 | 150 | 43 | 35.46\% | 10\% | 378 |
| 2015 | \$18.00 | \$192.00 | 150 | 43 | 35.4e\% | 10\% | 478 |
| 2018 | \$16.00 | \$192.00 | 150 | 423 | 35.46\% | 10\% | 778 |
| 2017 | \$16.00 | \$192.00 | 150 | 43 | 35.46\% | 10\% | 878 |
| 2015 | \$16.00 | \$192.00 | 150 | 423 | 35.46\% | 10\% | 376 |
| 2019 | \$18.00 | \$192.00 | 150 | 423 | 35.46\% | 10\% | 378 |
| 2020 | \$18.00 | \$192.00 | 150 | 423 | 35.40\% | 10\% | 376 |
| 2024 | \$16.00 | \$192.00 | 150 | 423 | 35.46\% | 10\% | ${ }^{375}$ |
| 2022 | \$18.00 | \$192.00 | 150 | 423 | 35.48\% | 10\% | 578 |
| 2023 | \$16.00 | \$152.00 | 150 | 423 | 35.44\% | 10\% | \$75 |
| 2024 | \$16.00 | \$182.00 | 150 | 43 | 35.44\% | 10\% | ${ }^{78}$ |
| 2025 | \$18.00 | \$192.00 | 150 | 423 | 35.46\% | 10\% | \$76 |
| 2026 | \$6.00 | \$192.00 | 150 | 423 | 35.46\% | 70\% | 975 |
| 2027 | \$16.00 | \$152.00 | 150 | 423 | 35,40\% | 10\% | 575 |
| 2028 | \$18.00 | \$19200 | 150 | 433 | 35.46\% | 10\% | \$75 |

St. Joe Natural Gas - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Heating System |



# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 <br> Residential Propane Distribution System Conversion Program <br> Participants Test - Data 

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Heating System |  |  |  |
| Exacaluion Retas |  | LP Downergin Rate | $0.00 \%$ |
| Osm Expenae | 1.0\% | ne Fuel Rete | $1.0 \%$ |
| LP Fued Cost | 1.0\% | NGG Base Rates | 0.0\% |


| Propane Cost - Table 1 |  |  |  |  | Matural Gan Supply Cost - Table 2 |  |  |  |  | Natural Gas Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yama | Cost Par Gallon | Annatid Ganlon: | Tax Ram | Progene | Yeos | Cost Pe Therm | Annual | Tur Rewo | mocost | Y mar | Rutper Por | Amnusi Thenms | Tax reate | NG Cost |
| A | 日 | c | 0 | BPC(1+b) | A | B | $c$ | 0 | BCC $(1+0)$ | A | B | c | 0 | $\mathrm{BCO}(1+\mathrm{O})$ |
| 2000 | \$2.5460 | 19 | 7.5\% | 8532 | 2005 | \$0.8980 | 178 | 10\% | \$178 | 2008 | \$0.5863 | 178 | 10\% | 134 |
| 2010 | \$2.5533 | 19. | 7.5\% | 833 | 2040 | \$0.9048 | 178 | 10\% | \$177 | 2010 | \$0.5663 | 178 | 10\% | \$134 |
| 2091 | \$2.5605 | 19 | 7.5\% | \$538 | 2011 | 30.9140 | 178 | 10\% | \$179 | 2011 | \$0.3863 | 178 | 10\% | \$134 |
| 2012 | \$2.5878 | 194 | 7.5\% | \$836 | 2012 | \$0.9231 | 178 | 10\% | \$181 | 2012 | \$0.8583 | 178 | 10\% | \$13 |
| 2013 | \$2.5750 | 194 | 7.5\% | \$538 | 2013 | \$0.9323 | 178 | 10\% | \$183 | 2013 | \$0.8863 | 178 | 10\% | \$134 |
| 2014 | \$2.5823 | 194 | 7.3\% | \$508 | 2014 | 20.9447 | 178 | 10\% | \$484 | 2014 | \$0.8se3 | 178 | 10\% | \$134 |
| 2018 | \$2.58s8 | 194 | 7.3\% | SH1 | 2015 | 50.9511 | 178 | 10\% | \$139 | 2045 | \$0.58e3 | 178 | 10\% | \$134 |
| 2016 | \$2.596\% | 194 | 7.5\% | \$542 | 2018 | 50.9806 | 178 | 10\% | 188 | 2016 | 50.6883 | 178 | 10\% | 113 |
| 2017 | \$2.004 | 194 | 75\% | 354 | 2917 | 80.8702 | 176 | 10\% | 5190 | 2017 | \$0.8583 | 178 | 10\% | \$134 |
| 2018 | \$2.8113 | 194 | 7.5\% | \$346 | 2018 | 50.8790 | ${ }^{77}$ | 10\% | \$192 | 2018 | \$0.6863 | 178 | 10\% | \$134 |
| 2019 | \$2.8186 | 194 | 7.5\% | 5047 | 2018 | 30.8887 | 178 | 10\% | \$184 | 2078 | \$0.8863 | 178 | 10\% | \$136 |
| 2020 | \$2.6259 | 194 | 7.5\% | stas | 2020 | 30.9996 | 178 | 10\% | \$1\% | 2020 | 50.6883 | 178 | 10\% | \$134 |
| 2024 | \$2.8339 | 194 | 7.5\% | 4850 | 2021 | \$1.0098 | 176 | 10\% | \$19a | 2021 | 50.8883 | 178 | 10\% | \$134 |
| 2028 | \$2.8604 | 194 | 7.5\% | 5362 | 2022 | 51.0197 | 176 | 10\% | \$200 | 2022 | \$0.8883 | 178 | 10\% | 4134 |
| 2023 | 52.8476 | 194 | 7.5\% | 483 | 2023 | \$1.029\% | 178 | 10\% | \$202 | 2023 | \$0.8863 | 178 | 10\% | \$134 |
| 2024 | \$2.6549 | 19* | 7.5\% | 8585 | 2024 | \$1.0402 | 176 | 10\% | 8294 | 2024 | sosee3 | 178 | 10\% | \$134 |
| 2005 | \$2.662 | 194 | 7.5\% | \%ss | 2025 | \$1.0566 | 178 | 10\% | \$200 | 2025 | 50.6663 | 178 | 10\% | \$134 |
| 2026 | 52,8694 | 194 | 7.5\% | \% 6 | 202\% | \$1.0619 | 178 | 10\% | \$200 | 2028 | \$0.8883 | 178 | 10\% | \$13 |
| 2027 | \$2.0767 | 19 | 7.5\% | *ssos | 2027 | 81.077 | 178 | 10\% | \$20 | 2027 | \$0.6863 | 178 | 10\% | \$134 |
| 2028 | \$2.6839 | 194 | 7.5\% | 8504 | 2028 | \$1.0024 | 778 | 10\% | 8212 | 2028 | 50.6883 | 178 | 10\% | 8134 |


| Natural Gas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| rear | $\begin{gathered} \text { Monntry } \\ \text { Cuntmer } \\ \text { Charge } \end{gathered}$ | $\begin{aligned} & \text { Annumer } \\ & \text { Cumber } \\ & \text { Change } \end{aligned}$ | Appllance Antizat Therme | Totat Anmua Therm: | $\begin{aligned} & \text { Rumion- } \\ & \text { Appptunce to } \\ & \text { Tratal } \end{aligned}$ | Tax Rate | Prontitual Catherome Chtrive |
| A | - | $c$ | D | E | DE | 6 | crioferith |
| 2003 | \$18.00 | \$192.00 | ${ }^{178}$ | 443 | 40.18\% | 10\% | 585 |
| 2010 | 51800 | \$182.00 | 478 | 443 | 40.38\% | 40\% | 515 |
| 2011 | \$18.00 | \$192.00 | ${ }^{978}$ | 443 | 40.18\% | 10\% | 365 |
| 2012 | \$16.00 | \$192.00 | 178 | 443 | 40.18\% | 10\% | \$585 |
| 2013 | \$18.00 | \$192.00 | 176 | 443 | 40.18\% | 10\% | Ssa |
| 2014 | \$18.00 | \$192.00 | 178 | 44 | 40.18\% | 10\% | ses |
| 2015 | \$18.00 | \$182.00 | 178 | 44. | 40.18\% | 10\% | 585 |
| 2016 | \$10.00 | 1992.00 | 178 | 43 | 40.18\% | 10\% | 585 |
| 2017 | \$1600 | \$18200 | 479 | 443 | 40.18\% | 10\% | 58 |
| 2018 | \$18.00 | \$182.00 | 176 | 43 | 40.18\% | $10 \%$ | \$85 |
| 2019 | \$15.00 | \$19200 | 178 | 43 | 60.18\% | 10\% | \$56 |
| 2020 | \$16.00 | \$182.00 | 178 | 443 | 40.18\% | 70\% | \$56 |
| 2021 | \$16.00 | \$182.00 | 178 | 443 | 40.18\% | 10\% | sts |
| 2022 | \$16.00 | \$192.00 | 178 | 443 | 40.18\% | 10\% | 585 |
| 2023 | \$18.00 | \$102.00 | 176 | 44 | 40,16\% | 10\% | \$5 |
| 2024 | \$16.00 | \$182.00 | 178 | 44 | 40.16\% | 10\% | 5 |
| 2025 | \$16.00 | \$182.00 | 178 | 443 | 40.15\% | 10\% | ses |
| 2028 | \$15.00 | \$182.00 | 178 | 443 | 40.88\% | 10\% | 585 |
| 2027 | \$18.00 | \$19200 | 478 | 43 | 40.18\% | 10\% | 585 |
| 2025 | \$1500 | \$19200 | 176 | 443 | 40.18\% | 10\% | ses |

# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program <br> Participants Test - Cost Effective Results 

| Appliance Type |
| :---: |
| Clothes Drying |



St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program Participants Test - Data

| Appliance Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Clothes Drying |  |  |  |
| Escataon Remen |  | LP Doimargh Rate | 0.0\% |
| Osm Expense | 1.0\% | na Fuel Rate | 1.0\% |
| LP Fuel Coar | 1.0\% | No Same Pates | 0.0\% |


| Propane Cost-Table 1 |  |  |  |  | Nutural Cas Supply Cost-Tuble 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cost Pow Galion | Amual | Taxkatim | Propana Cont | Year | Cont Per Tham | Anaum Thermis | Tax Rat | Ne Cost |
| A | B | $c$ | 0 | $\mathrm{BCC}^{-}(1+\mathrm{D})$ | A | 8 | c | D | $\mathrm{Br} \times(4+\mathrm{P})$ |
| 2009 | \$2.4480 | 5 | 7.5\% | \$149 | 2009 | 50.8960 | so | 10\% | 449 |
| 2010 | \$25533 | 55 | 7.5\% | \$1s0 | 2010 | 50.9049 | 50 | 10\% | \$50 |
| 2014 | \$2.5603 | 5 | 7.5\% | \$180 | 2011 | \$0.9140 | 50 | 10\% | \$50 |
| 2012 | \$2.5678 | 55 | 7.5\% | \$181 | 2012 | 50.9231 | 50 | 10\% | 881 |
| 2043 | \$2.5750 | 35 | 7.5\% | \$184 | 2013 | \$0.9333 | 50 | 10\% | 651 |
| 2014 | 525823 | 55 | 7.5\% | 3152 | 2014 | \$0.9417 | so | 10\% | \$62 |
| 2045 | \$2.5898 | 5 | 7.5\% | \$162 | 2015 | \$0.981 | 50 | 10\% | \$52 |
| 2056 | *2.5880 | 55 | 7.5\% | $\$ 152$ | 2016 | \$0.2808 | 50 | 10\% | 85 |
| 2017 | \$2.6041 | 5 | 7.5\% | \$153 | 2017 | \$0.9702 | 50 | 10\% | \$5 |
| 2018 | \$2.6113 | 53 | 7.5\% | 3153 | 2018 | 50.9794 | 50 | 50\% | ${ }_{3}$ |
| 2019 | \$2.8180 | 55 | 7.5\% | \$154 | 2019 | 50.9897 | 50 | 10\% | 8s |
| 2020 | \$2.6259 | 55 | 1.5\% | \$154 | 2020 | \$0,999\% | 50 | 10\% | sse |
| 2024 | \$2.8334 | 55 | 7.5\% | \$154 | 2021 | \$1.0038 | 50 | 10\% | 38 |
| 2022 | \$2.8404 | 55 | 7.5\% | \$185 | 2022 | \$1.0197 | 50 | 10\% | 808 |
| 2073 | \$2.8476 | 55 | 7.5\% | \$185 | 2023 | \$1.0299 | 50 | 10\% | 867 |
| 2024 | \$2.6549 | 55 | 7.5\% | \$186 | 2024 | \$1.0402 | 50 | 10\% | 407 |
| 2025 | 52.6832 | ${ }_{5}^{5}$ | 7.5\% | \$156 | 2025 | \$1.0500 | 50 | 10\% | 56 |
| 208 | \$2.5694 | 55 | 7.5\% | 5167 | 2028 | \$1.0611 | 50 | 10\% | sse |
| 2027 | \$2.8767 | 55 | 7.3\% | 319 | 2027 | 51.0747 | 50 | 10\% | \$0 |
| 2028 | 52.8839 | 55 | 7.3\% | 517 | 2028 | \$1.0824 | 30 | 10\% | \$80 |


| Natural Oax Energy Charge - Table 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Fater Por Themen | Annual Therrat | Tax Rata | NG Cont |
| A | 8 | $c$ | 0 | B*C( $1+\mathrm{D}$ ) |
| 2009 | \$0.6063 | 50 | 10\% | *39 |
| 2010 | 50.8883 | 50 | 10\% | *38 |
| 2011 | \$0.6803 | 50 | 10\% | ${ }^{3} 88$ |
| 2012 | \$0.8883 | 50 | 10\% | ${ }^{38}$ |
| 2013 | \$5.8883 | 50 | 80\% | 388 |
| 2014 | \$0.6863 | 50 | 10\% | * 83 |
| 2015 | \$08803 | 50 | 10\% | 88 |
| 2018 | 50.8083 | 50 | 10\% | \$38 |
| 2047 | \$0.6083 | 50 | 10\% | \$38 |
| 2018 | \$0.8883 | 50 | 10\% | 138 |
| 2019 | \$0.8883 | 50 | 10\% | \%38 |
| 2020 | 50.6883 | 50 | 10\% | 838 |
| 2024 | \$0.6883 | 50 | 40\% | *38 |
| 2022 | \$0.8863 | 50 | 10\% | \$38 |
| 2023 | \$0.8683 | 50 | 10\% | 538 |
| 2024 | \$0.6eb3 | 50 | 10\% | 538 |
| 2025 | \$0.6863 | 50 | 10\% | 538 |
| 2028 | \$0.886 | 50 | 10\% | 838 |
| 2027 | 50.88003 | 50 | 10\% | \$38 |
| 2028 | \$0.8863 | 50 | 10\% | *38 |


| Natural Cas Customer Charge - Table 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{aligned} & \text { Monthty } \\ & \text { Cumbemer } \\ & \text { Chargy } \end{aligned}$ | Annual Cumbumer change | Apphamep Thernta | Total Therms | $\begin{aligned} & \text { Ration - } \\ & \text { Applimese iko } \\ & \text { Totat } \end{aligned}$ | Tax Rata | Promantex Chang Chwor |
| A | $B$ | $c$ | - | E | DE | 0 | Cromer + +2) |
| 2009 | \$8.00 | \$102.00 | 50 | 443 | 1\%.29\% | 10\% | *24 |
| 2010 | \$18.00 | \$192.00 | 50 | 443 | 14.29\% | 10\% | 22: |
| 2014 | \$16.00 | \$192.00 | 50 | 443 | 11.29\% | 10\% | \$24 |
| 2012 | \$18.00 | \$182.00 | 50 | 443 | 11.29\% | 10\% | 524 |
| 2013 | \$16.00 | \$182.00 | 50 | 443 | 11.29\% | 10\% | 524 |
| 2014 | \$16.00 | \$182.00 | 50 | 443 | 11.29\% | 10\% | 324 |
| 2015 | \$18.00 | *182.00 | 50 | 44 | 11.29\% | 10\% | \$24 |
| 2018 | \$18.00 | \$182.00 | 50 | 463 | 11.29\% | 10\% | \$24 |
| 2017 | \$16.00 | \$192.00 | 50 | 44 | 11.29\% | 10\% | \$24 |
| 2018 | \$16.00 | \$102.00 | 50 | 44 | 11.29\% | 10\% | 32 |
| 2019 | \$6.00 | *192.00 | 50 | 443 | 11.29\% | 10\% | 324 |
| 2020 | \$38.00 | \$192.00 | 50 | 443 | 11.29\% | 10\% | 524 |
| 2021 | \$16.c0 | \$192.00 | 50 | 43 | 11.29\% | 10\% | \$24 |
| 2022 | \$18.00 | \$182.00 | 50 | 443 | 11.29\% | 10\% | 524 |
| 2023 | \$18.00 | \$182.00 | 50 | 443 | 11.29\% | 10\% | 524 |
| 2024 | \$16.00 | \$102.00 | 50 | 443 | 11.29\% | 10\% | \$24 |
| 2025 | \$16.00 | \$182.00 | 50 | 443 | 11.28\% | 10\% | \$24 |
| 2026 | \$66.00 | \$102.00 | 50 | 443 | 11.29\% | 10\% | 524 |
| 2027 | \$16.00 | \$182.00 | 30 | 443 | 11.27\% | 10\% | \$24 |
| 2028 | \$16.00 | \$18200 | 50 | 43 | 11.29\% | 10\% | 324 |

St. Joe Natural Gas - AGDF Energy Conservation Filing 2009
Residential Propane Distribution System Conversion Program
Participants Test - Cost Effective Results

| Appliance Type |
| :---: |
| Cooking |



# St. Joe Natural Gas - AGDF Energy Conservation Filing 2009 Residential Propane Distribution System Conversion Program 

 Participants Test - Data| Applance Type |  |  |
| :---: | :---: | :---: |
| Cooking |  |  |
| Ecalation Ratas |  | LP Delmarain Rate |
| OMM Experree | . $1.0 \%$ | NG Fuel Refit |
| LP Fuet Cout | 1.0\% | NG Brae Rates |


| Propane Cost - Tabte 1 |  |  |  |  | Natural Gas Supply Cost - Tablez |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Contpw | Annuat | Tax Reste | Propane cost | Year | Cost Per Therm | Ansuas | Tax Arent | nacout |
| A | 日 | $c$ | D |  | A | 8 | c | D | $\mathrm{BrCr}(1+$ ) |
| 2008 | \$2.5480 | 49 | 7.5\% | \$134 | 2008 | 50.8980 | 45 | 10\% | s44 |
| 2000 | \$2.5533 | 49 | 7.5\% | \$138 | 200 | 50.904 | 45 | 10\% | 4 |
| 2011 | \$2.5605 | 48 | 7.5\% | \$136 | 2041 | \$0.9140 | 45 | 10\% | *4 |
| 2012 | \$2.5878 | 49 | 7.5\% | \$138 | 2042 | \$0.9331 | 45 | 10\% | 448 |
| 2013 | \$2.5750 | 49 | 7.5\% | \$138 | 2013 | \$0.9323 | 45 | 10\% | 24 |
| 2014 | \$2.5823 | 49 | 7.5\% | \$138 | 2014 | 50.9417 | 45 | 10\% | \$47 |
| 2015 | \$2.5696 | 49 | 7.5\% | \$137 | 2015 | \$0.9511 | 45 | 10\% | 94 |
| 2018 | \$2.5988 | 49 | 7.5\% | *137 | 2016 | \$0.9806 | 45 | 10\% | 448 |
| 2017 | \$2.0041 | 49 | 7.5\% | \$139 | 2017 | \$0.9702 | 45 | 10\% | 44 |
| 2018 | \$2.6133 | 49 | 7.5\% | \$130 | 208 | \$0.9798 | 45 | 10\% | 4 |
| 2019 | \$2.8188 | 4 | 7.5\% | \$138 | 2049 | \$0.9997 | 45 | 10\% | 4 |
| 2000 | \$2.6258 | 49 | 7.5\% | \$139 | 2000 | \$0.8958 | 45 | 10\% | * |
| 2021 | \$2.6331 | 48 | 7.5\% | \$136 | 2024 | \$1,0096 | 45 | 10\% | 350 |
| 2022 | 52.6404 | 49 | 7.5\% | 3139 | 2022 | 31.0987 | 45 | 10\% | * 60 |
| 2023 | \$2.4478 | 4 | 7.5\% | \$140 | 2023 | \$1.029s | 45 | 10\% | \$51 |
| 2024 | \$2.6549 | 49 | 7.5\% | \$140 | 2024 | \$1,0402 | 45 | 10\% | 84 |
| 2025 | 92.6622 | 49 | 7.5\% | \$141 | 2025 | \$1.0506 | 45 | 10\% | \$52 |
| 2028 | \$2.6994 | 49 | 7.5\% | \$141 | 2028 | \$1.0611 | 45 | 10\% | \$63 |
| 2027 | \$2.6767 | 49 | 7.5\% | \$141 | 2027 | \$1.0717 | 45 | 10\% | \$3 |
| 2028 | \$2.8830 | 49 | 7.5\% | 5142 | 2028 | \$1.0824 | 45 | 10\% | 354 |


| Natural Gas Energy Charge Tabie 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Yest | Rater Por Therm | Annual Therms | Tax ferte | nacost |
| A | 8 | c | 0 | $\mathrm{BrCr}(1+\mathrm{C})$ |
| 2009 | 50.6663 | 45 | 10\% | 3 4 |
| 2040 | \$0.6863 | 45 | 10\% | \$4 |
| 2041 | \$0.6883 | 45 | 10\% | 84 |
| 2042 | \$0.6883 | 45 | 10\% | * 4 |
| 2013 | \$0.6863 | 45 | 10\% | S4 |
| 2014 | 50.6883 | 45 | 10\% | 84 |
| 2015 | \$0.6863 | 45 | 10\% | st |
| 2016 | 50.6863 | 45 | 10\% | \$34 |
| 2047 | \$0.88e3 | 45 | 10\% | \% |
| 20:8 | \$0.6883 | 45 | 10\% | *34 |
| 2018 | \$0.6883 | 45 | 10\% | \% 4 |
| 2020 | \$0.8883 | 45 | 10\% | th |
| 2021 | \$0.E883 | 45 | 10\% | su |
| 2022 | \$0.6883 | 45 | 10\% | 54 |
| 2023 | \$0.6883 | 45 | 10\% | S4 |
| 2024 | \$0.8863 | 45 | 10\% | 84 |
| 2025 | \$0.8863 | 45 | 10\% | * 24 |
| 2020 | \$0.6863 | 45 | 10\% | * 4 |
| 2027 | \$0.6863 | 45 | 10\% | sh |
| 2028 | \$0.8883 | 45 | 10\% | 33 |


| Natural Cas Customer Charge Trabie 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yesm | $\begin{aligned} & \text { Monthy } \\ & \text { Cuntomer } \\ & \text { Charge } \end{aligned}$ | $\begin{aligned} & \text { Annum: } \\ & \text { Customer } \\ & \text { Charge } \end{aligned}$ | Applames Twena | $\begin{aligned} & \text { Total } \\ & \text { Annum } \\ & \text { Trumms } \end{aligned}$ | $\begin{aligned} & \text { Ratio. } \\ & \text { Applance } \\ & \text { Tota! } \end{aligned}$ | Tax Rete | Frontanal Cumbemar Charge |
| A | B | c | D | E | DE | 6 | ctorer $(1+$ ) |
| 2009 | 516.00 | \$182.00 | 45 | 43 | 10.16\% | 10\% | 524 |
| 2010 | \$18.00 | \$192.00 | 45 | 43 | 10.16\% | 30\% | \$21 |
| 2011 | \$16.00 | \$192.00 | 45 | 443 | 10.16\% | 40\% | \$21 |
| 2012 | \$16.00 | \$192.00 | 45 | 43 | 10.16\% | 70\% | \$21 |
| 2013 | \$18.00 | \$192.00 | 45 | 443 | 10.16\% | 10\% | \$21 |
| 2014 | \$16.00 | \$192.00 | 45 | 43 | 70.15\% | 10\% | 521 |
| 2015 | \$16.00 | \$192.00 | 4 | 443 | 40.16\% | 10\% | 321 |
| 2016 | \$16.00 | \$192.00 | 45 | 43 | 10.15\% | 10\% | \$21 |
| 2017 | \$16.00 | \$182.00 | 45 | 44 | 10.15\% | 10\% | \$21 |
| 2048 | \$16.00 | \$192.00 | 45 | 43 | 10,88\% | 10\% | 321 |
| 2018 | \$18.00 | \$192.00 | 45 | 43 | 10.16\% | 10\% | \$21 |
| 2020 | \$16.00 | \$192.00 | 45 | 43 | 10.16\% | 10\% | 321 |
| 2021 | \$16.00 | \$192.00 | 45 | 43 | 10.16\% | 10\% | $\mathbf{2 1}$ |
| 2022 | \$16.00 | \$192.00 | 45 | 443 | 10.15\% | 10\% | $\$ 21$ |
| 2023 | \$16.00 | \$192.00 | 45 | 443 | 10.15\% | 10\% | \$21 |
| 2024 | \$16.00 | \$192.00 | 45 | 443 | 10.16\% | 10\% | \$21 |
| 2025 | \$18.00 | \$192.00 | 45 | 44 | 10.15\% | 10\% | \$21 |
| 2028 | \$16.00 | 3192.00 | 45 | 443 | 10.18\% | 10\% | \$21 |
| 2027 | \$16.00 | \$192.00 | 45 | 43 | 10.16\% | 10\% | 321 |
| 2028 | \$16.00 | \$192.00 | 45 | 43 | 10.16\% | 10\% | \$21 |

CERTIFICATE OF SERVICE
I HEREBY CERTIFY that true and correct copies of the foregoing have been served by Hand Delivery this $12^{\text {th }}$ day of March, 2009 upon the following:

Katherine Fleming, Esq.
Office of General Counsel
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850


