

1  
2  
3 **BEFORE THE**  
4 **TENNESSEE REGULATORY AUTHORITY**

5  
6  
7 **PREPARED DIRECT TESTIMONY**  
8 **OF**  
9 **DANIEL J. NIKOLICH**

10  
11 **IN RE:**  
12 **CHATTANOOGA GAS COMPANY**  
13 **DOCKET NO. De-00175**  
14

15  
16 ***I. INTRODUCTION***

17 **Q. Please state your name, position, and address.**

18 A. Daniel J. Nikolich, Manager, Planning and Forecasting, AGL Services Company.  
19 My business address is 10 Peachtree Place, Location 1686, Atlanta, Georgia  
20 30309.

21 **Q. Have you provided a summary of your educational background and**  
22 **professional experience?**

23 A. Yes. They are included as Attachment A.

24 **Q. Have you previously submitted testimony before the Tennessee Regulatory**  
25 **Authority (“TRA”) or any other regulatory commission?**

26 A. Though I have not testified before the TRA, I previously have testified before as  
27 an expert on utility ratemaking, forecasting, and regulatory issues before  
28 regulatory commissions in other jurisdictions as listed in Attachment A.

29 **Q. What is the purpose of your testimony?**

30 A. I will support Chattanooga Gas Company’s (“CGC” or “the Company”)  
31 comprehensive rate design plan in this proceeding. As discussed in the direct  
32 testimony of Company witness Lindsey, this comprehensive plan is designed to

1 align the interests of the Company with the interests of its customers. The plan  
2 includes the following proposals, each of which will be discussed in more detail  
3 later in my testimony:

- 4
- 5 • Energy Conservation Plan (“ECP”),
- 6 • Conservation and Usage Adjustment (“CUA”)
- 7 • Chattanooga Assisted Rate for Energy Service (“CARES”)
- 8

9 In addition, we are proposing specific rate design proposals by customer class  
10 which are designed to move classes gradually towards parity, and work in  
11 conjunction with the Company’s ECP and CUA to encourage conservation while  
12 mitigating the impacts of revenue instability. I also will present the recovery  
13 mechanism for the proposed Bare Steel and Cast Iron Replacement Rider.

14 **Q. Are you sponsoring exhibits in connection with your testimony?**

15 **A.** Yes. I am sponsoring the following exhibits:

- 16 • Exhibit DJN-1: Conservation Savings from furnace replacement under current
- 17 rates
- 18 • Exhibit DJN-2: Electric Power Board Advertisement
- 19 • Exhibit DJN-3: Rate Design Proposals
- 20 • Exhibit DJN-4: Conservation Savings from Furnace Replacement under
- 21 Proposed Rates
- 22 • Exhibit DJN-5: Commercial Meter Sizes
- 23 • Exhibit DJN-6: Small commercial block percentages

- Exhibit DJN-7: Interruptible Base Revenue Sharing through IMCR
- Exhibit DJN-8: CARES Program
- Exhibit DJN-9: Conservation and Usage Adjustment Recovery
- Exhibit DJN-10: Clean and Redline Copies of CGC's Proposed Tariff

**Q. How is your testimony organized?**

**A.** My testimony consists of four sections as follows:

I. Introduction

II. Comprehensive Rate Design Plan

III. Rate Design Proposals

IV. Energy Conservation and CARES Programs, Conservation and Usage Adjustment, and Bare Steel and Cast Iron Pipeline Replacement Program

**II. COMPREHENSIVE RATE DESIGN PLAN**

**Q. Please summarize the objectives of the Company's comprehensive rate design plan.**

**A.** Three main objectives guide the Company's proposed rate design plan: conservation, revenue stability, and fairness. The need for energy conservation is a growing concern and trend throughout the country. Demand for natural gas has been growing steadily nationwide while, for a number of reasons, the supply of natural gas has not increased at a corresponding rate. This increase in demand for natural gas and the increased pressure on natural gas supplies have resulted in record high prices. In fact, as discussed in the testimony of Company witness Lindsey, the United States has among the highest prices for natural gas in the

1 world. This was a prevailing issue in the market even before hurricanes Katrina  
2 and Rita, and with the impact these two natural disasters had on the supply of gas  
3 in 2005, CGC's customers themselves experienced extremely high commodity  
4 prices for natural gas. As a distributor of natural gas, it is imperative for CGC to  
5 be at the forefront in encouraging its customers to conserve, which would reduce  
6 their consumption and in turn reduce their energy costs. The ECP component of  
7 our rate design proposal is designed to inform and assist customers in lowering  
8 their consumption, and thus reducing their bills.

9 As Company witness Buchanan discusses, reduced consumption by CGC's  
10 customers already has begun as a result of a number of factors, including  
11 conservation, use of more energy efficient equipment, and increased competition.

12 Under the current rate design, this drop in consumption has a direct, negative  
13 impact to CGC's revenue stability, which results in a disconnect between CGC's  
14 need and desire to encourage conservation while at the same time needing to  
15 recover revenue sufficient to cover the costs of operating its system and earn a fair  
16 and reasonable return for its investors. Therefore, CGC is proposing the CUA in  
17 an effort to align the interests of the Company and its customers.

18 **Q. You have mentioned that current environmental and market conditions have**  
19 **lead you to consider conservation and revenue stability important rate design**  
20 **considerations Can you please describe in more detail what these conditions**  
21 **are and what effects they are having on CGC's revenues?**

22 A. These conditions are high natural gas commodity prices, more energy efficient  
23 equipment, and increased competition, all of which have led to decreased

1 consumption by customers. This decrease in consumption seems to be taking two  
2 forms: (i) lower consumption by existing customers primarily due to long-term  
3 equipment efficiency changes and price conservation and (ii) lower net customer  
4 growth, which is driven by the increase in competition. Long-term efficiency  
5 gains can be exemplified best by the choice of a customer to install a 90+%  
6 efficient furnace when their older 60% efficient unit wears out. As shown in  
7 Exhibit DJN-1, the new unit will save the customer \$225 per year in annual  
8 operating fuel costs. Even switching to minimum current 80% efficient furnace  
9 would save the customer \$163 per year. At the same time, the Company will  
10 experience a base-revenue loss of between 4.4% and 6.1% per customer as a  
11 result of the customer's action. Based upon the average furnace life,  
12 approximately 2000 to 2600 of CGC's customers replace their furnaces every  
13 year, resulting in base-revenue losses to the Company of between \$19,425 and  
14 \$34,856. The other form of reduced consumption is what I call price  
15 conservation. With price conservation, if the price is sufficiently high, customers  
16 make a decision to be less comfortable and lower their thermostat in order to save  
17 on their heating costs. The consumption decreases that the Company has seen this  
18 past winter appear to be the direct result of this kind of customer  
19 price/consumption behavior. This has led to an even greater level of base-revenue  
20 instability over the loss caused by long-term energy conservation.

21  
22 In addition, hurricanes Katrina and Rita created a tremendous supply disruption in  
23 a natural gas market where demand and supply were already in a narrow balance

1 due to years of steadily increasing national demand and lagging growth in supply  
2 that has lead to unprecedented high natural gas commodity prices this past winter  
3 (see Exhibit PGB-2 of Company witness Buchanan). Based upon New York  
4 Mercantile Exchange futures as of June 15, 2006, wholesale prices of natural gas  
5 are expected to increase above \$10.00 per dekatherm again next winter. As  
6 covered in Mr. Buchanan's testimony, this served to accelerate the pace of  
7 conservation and attrition by CGC customers this past winter. As a result of these  
8 higher prices, commodity prices for a typical CGC residential customer have  
9 increased over 233% since January 2000.

10 In addition to reduced consumption by existing customers, the Company is  
11 experiencing lower net growth due to increased competition. Competition from  
12 electric heat pumps in the home heating market has increased dramatically over  
13 the past decade. Recent advertisements by the Electric Power Board ("EPB") on  
14 television, radio, print, and on their web site speak directly to the current  
15 competitive situation. Exhibit DJN-2 presents a sample of one the EPB's web site  
16 advertisements. While on a net present value basis over the life of the appliances,  
17 heat pumps and natural gas furnaces are comparable in cost, heat pumps offer  
18 immediate, short-term operational cost savings over a natural gas furnace. This  
19 has contributed to a long-run erosion of customer load, increased customer  
20 attrition, and deteriorating base-revenue stability.

21 **Q. Why is this revenue instability a concern?**

22 A. Through CGC's base revenue from serving customers has and will continue to  
23 decrease due to the factors discussed above, the Company's basic investment in

1 infrastructure to serve its existing customers is not expected to decline. The  
2 Company has incurred the costs for the infrastructure to serve its customers, and  
3 as evidenced by the direct testimony of Company witness Heintz, these capital  
4 costs do not vary with consumption. Further, given that CGC's current rates are  
5 consumption based, when customer consumption declines, the Company's  
6 revenue from customers will decline just as discussed in Company witness  
7 Buchanan's testimony. Therefore, the Company will be less likely to recover the  
8 costs to operate its system and earn a fair and reasonable rate of return under its  
9 current rate structure.

10 **Q. Please describe the current rate structure for CGC.**

11 A. CGC's rates are broken down into three basic categories: residential, commercial,  
12 and industrial.

13 Residential distribution rates consist of a modest customer charge and a seasonal  
14 decreasing multi-step declining block consumption rate that rewards customers  
15 for high monthly consumption with lower rates. Currently the consumption rates  
16 comprise 60.9% of the residential customers' bills.

17 Commercial rates consist of a modest seasonal customer charge and a seasonal  
18 decreasing multi-step declining block consumption rate that rewards customers  
19 for high monthly consumption with lower rates. Whereas customers in the  
20 residential class are fairly homogenous in both their uses and amount consumed  
21 of natural gas, commercial customers are neither. Approximately 80% of the  
22 commercial customers have a consumption average of 958 therms per year and  
23 use minimum-sized services and meters comparable to residential customers. The

1 20% that use larger meters and services have loads that average 17,602 therms per  
2 year, requiring much more main than the smaller commercial customers. The  
3 consumption charge portion of the distribution charges accounts for 95.1% of the  
4 larger customers bills while they account for 53.3% of the smaller customers bills.  
5 Industrial rates are based on sales-based concepts of firm and interruptible supply.  
6 As such, there are separate firm and interruptible sales rates with matching  
7 transportation rates. The firm sales and transportation rates consist of a customer  
8 charge, a demand charge, and a multi-step declining block consumption rate that  
9 rewards high monthly consumption. The interruptible sales and transportation  
10 rates consist of a customer charge and a multi-step declining block consumption  
11 rate that rewards high monthly consumption. However, the reality is quite  
12 different than the basis of the current rates. There is only one "sales customer"  
13 left. The remaining customers are all transporting gas. Of the transport customers,  
14 only a handful of them have elected any amount of firm sales backup, and only a  
15 few have confirmed back-up fuels. The current trend by customers is to drop the  
16 sales standby rate, switching to interruptible (which two recently have requested).  
17 Under transportation, there is little difference in character of service between firm  
18 and interruptible. If there is no firm sales back up, the Company is under no  
19 obligation to serve; however, the Company does not curtail the customer if the  
20 marketer gets the gas to the city gate. Further, the Company has curtailed  
21 customers in recent years only for operational and pressure problems.



1       **Q.    Does this structure properly align the customers' and the Company's**  
2       **interests in terms of conservation, revenue stability, and fairness?**

3       **A.**    No. The current rates penalize the customer for conservation through the  
4       declining block structure. In addition, by using a monthly rate with a declining  
5       block, the rates tend to encourage poor load factor utilization of CGC's  
6       distribution system. Further, the revenue from residential customers does not  
7       reflect the cost-share indicated by the cost-of-service study, suggesting that  
8       commercial and industrial customers are unfairly penalized by subsidizing the  
9       residential class. Within the commercial class, rates appear to unfairly subsidize  
10      the small users through the commodity charge and penalize the large commercial  
11      users. For the industrial class, the firm demand charge removes some issues about  
12      intra-class subsidization, but by not having an identical charge on transportation,  
13      it encourages base-revenue instability as customers drop firm sales backup to  
14      avoid the demand charge and receive an equivalent level of service. Finally, by  
15      the rates being heavily volume dependent (73% of base revenue overall comes  
16      from volumetric consumption charges), there is no incentive from rates for the  
17      Company to promote conservation. In fact, the incentive is the opposite, i.e., to  
18      promote additional consumption as price per therm decreases as a customer uses  
19      more gas. The current rate structure misaligns CGC's interests from those of its  
20      customers and the market, and its desire to earn its fair and reasonable rate of  
21      return.

22      **III.    RATE DESIGN PROPOSALS**

23      **Q.    Please describe the proposed changes to CGC's rate structures?**

1       A.     For the residential class, the Company proposes to reduce the number of step rate  
2             blocks to encourage conservation and to increase the customer charge to better  
3             align price with cost causation. For the commercial class, the Company proposes  
4             to split the class at 4,000 therms per year to reduce intra-class subsidies between  
5             small and medium customers, reduce the number of step rate blocks to encourage  
6             conservation, increase the customer charge to better align price with cost  
7             causation, and introduce a demand charge to the new medium general service  
8             class to remove within-class subsidies between customers and better reflect cost  
9             causation. Finally, for the industrial classes, the Company proposes to increase the  
10            demand charge to better reflect cost causation, eliminate the step rate blocks, and  
11            flow back 90% of the interruptible customer volumetric consumption base  
12            revenue to the firm customers through the Interruptible Margin Sharing Credit  
13            Rider ("IMCR"). Exhibit DJN-3 presents a detailed presentation of the billing  
14            determinants, proposed changes, and their impacts to the customers.

15       **Q.     Please describe the proposed changes to CGC's Residential rate?**

16       A.     The Company proposes three main changes to the residential class. First, the  
17             Company proposes to reduce the number of step rate blocks from four to two,  
18             with a narrowing of the differential between the steps. This will simplify the rate  
19             and gradually begin moving the residential rate away from declining step rate  
20             blocks that can act as a disincentive conservation. The second change proposed is  
21             to increase the customer charge to \$10.00 per month May through October, and to  
22             \$13.00 per month November through April to begin to gradually better align the  
23             charges with cost causation as demonstrated by the Cost-of-Service Study

1 prepared by Company witness Heintz. While Mr. Heintz shows customer costs of  
2 \$19.79 per month on Exhibit DAH-1, page 5, this would be a \$12.79 per month  
3 increase over doubling the current customer charge. In the interests of gradualism  
4 and rate moderation, the Company is proposing more modest monthly increases.  
5 The third change proposed is to share the revenues from interruptible customers  
6 back with firm rate classes through the IMCR mechanism already in place. This  
7 would result in an overall increase to residential rates of \$76.27 per customer or  
8 7.59%. While this is not the overall \$124.54 or 45.7% per-customer level of  
9 increase that would be suggested by the cost-of-service study, again, in the  
10 interests of rate moderation and gradualism, the Company is proposing the more  
11 modest average monthly increase of \$6.36 per customer. As stated elsewhere in  
12 my testimony, while fairness can be interpreted as closely matching the charges  
13 paid by customers to the cost of service, there are also competing principles of  
14 gradualism and rate moderation to be weighed.

15 **Q. Why does reducing the number of block rate steps encourage conservation?**

16 A. As demonstrated by Exhibit DJN-4, the average customer who replaces a 60%  
17 efficient furnace with an 80% efficient furnace will save \$184. This is a 12.5% or  
18 \$20 increase in the potential savings from conservation.

19 **Q. Please describe the proposed changes to CGC's Commercial rate?**

20 A. The Company proposes to split the commercial class into two separate classes  
21 based upon annual volume. Customers with over 4,000 therms per usage would be  
22 moved to a new C-2 Medium Commercial class. For customers under 4,000  
23 remaining in the old C-1 rate, the Company proposes a simple two-part rate

1 consisting of a customer charge and a consumption charge. For customers in the  
2 new C-2 rate, the Company proposes moving to a more equitable straight, fixed-  
3 variable structure with a customer charge, demand charge, and consumption  
4 charge. The Company also is proposing to share the revenues from interruptible  
5 customers back with firm rate classes through the IMCR mechanism already in  
6 place. This would result in an overall average increase to small commercial  
7 customers' rates of \$110 per customer or 9.58%, and an overall average increase  
8 to large commercial customers' rates of \$1,115 per customer or 4.95%. While  
9 these are not the \$163 per customer increases that would be suggested by the cost-  
10 of-service study for the small commercial class, in the interests of rate moderation  
11 and gradualism, the Company is proposing a more modest monthly increase of  
12 \$9.15 per customer. Also, though these are not the decreases that would be  
13 suggested by the cost-of-service study for the large commercial class, in the  
14 interests of rate moderation and gradualism, the Company is proposing a modest  
15 increase of 4.95% per customer that is at a lower level than that proposed for the  
16 residential and small commercial classes, which gradually will begin moving the  
17 medium commercial class rate of return to a more equitable position.

18 **Q. Why is splitting the existing commercial rate in two beneficial?**

19 A. The current commercial class is extremely diverse and consists of both larger-  
20 volume customers who use gas for industrial processing with an average annual  
21 volume of 17,600 therms per year and smaller customers who consume an  
22 average of 985 therms per year in a manner more consistent with expectations for  
23 traditional commercial usages of space heating, water heating, and cooking. As

1 there are differences in their volumes and usages, there also are corresponding  
2 differences in costs that the current rate structure does not reflect. Exhibit DJN-5  
3 presents the meter sizes used by each of the proposed classes. For the small  
4 commercial class, the minimum size AC-250 Meter is by far the dominant meter  
5 type in use by over 67% of the customers. For the proposed over 4000 therms  
6 medium commercial class, less than 3% of the customers have this type of meter.  
7 In addition, the 1731 customers who would be in the medium commercial class  
8 have a design day demand of 31,563 Dths, nearly double that of the 6,620  
9 customers that would qualify for the small commercial class with a design day of  
10 16,820 Dths. Consequently, the proposed medium-commercial class customers  
11 account for more than double the demand costs of the small commercial class, as  
12 shown on page 4 of Company witness Heintz's Exhibit DAH-1. By splitting this  
13 class, cost differences among customers are reflected in their prices, leading to  
14 better alignment of benefits volumes and usage characteristics.

15 **Q. For the proposed Small Commercial C-1 class, why are you proposing to**  
16 **change from a multi-stepped block rate to single-block rate?**

17 **A.** In reality, I am not proposing any effective change to the rate structure for theses  
18 customers. As shown by the monthly block percentages in Exhibit DJN-6, not  
19 one of the customers that will qualify for the new small commercial rate exceeds  
20 the monthly 3,000 therms of the first block. This means that these customers  
21 already have the rate structure comprised of a single-block rate and a customer  
22 charge.

1       **Q.    Why is a straight fixed variable rate more equitable to customers in the**  
2       **proposed large-commercial class than the current multi-stepped block rate?**

3       A.    The 1,731 customers who will qualify for this class are extremely diverse with  
4       annual consumption ranging from 4,000 therms to over 400,000 therms. A  
5       straight fixed variable rate would price the rate closely with the causation of cost.  
6       The demand charge will allow the Company to recover more equitably at least a  
7       portion of the demand costs based on each customer's contribution to such costs.  
8       Further, straight fixed variable rates reward and incentivize customers to achieve  
9       higher load factors that are beneficial to the distribution system by providing them  
10      with a lower average-unit price than if they had low load factors. The existing  
11      multi-step declining block rate, while incentivizing customers to use more gas,  
12      does not encourage customers to use gas in a manner that is beneficial to the  
13      system. Rather, it rewards high-volume customers who can maximize the monthly  
14      loads at the expense of lower-volume customers. Finally, in the interest of  
15      gradualism, the Company is proposing a customer charge of \$75.00 per month  
16      that is below the \$128.61 per month charge suggested by the cost-of-service study  
17      and a demand charge of \$7.00 per month that also is well below the cost of  
18      service recommended \$11.95 per month. In addition, a commodity charge of  
19      \$0.19758 per therm is being proposed.

20      **Q.    Please describe the proposed changes to CGC's industrial rates?**

21      A.    The Company is proposing two major changes to the industrial class. First, the  
22      Company is proposing to eliminate the declining block step rates in favor of an  
23      increased \$7.00 per Dth demand charge for firm service that is more reflective of

1 cost of service. Further, the Company is proposing to flow back 90% of all  
2 interruptible commodity-based distribution revenues to the firm customers  
3 through the IMCR as shown in Exhibit DJN-7. This would result in an overall  
4 average decrease to industrial firm customers of \$2,567 per customer or 0.83%.  
5 These are not the 6.55% decreases that would be suggested by the cost-of-service  
6 study for the large commercial class, but in the interests of rate moderation and  
7 gradualism, the Company is proposing a modest monthly decrease of \$214 per  
8 customer that gradually will begin moving the industrial class rate of return to a  
9 more equitable position. Finally, the Company proposes to increase the  
10 unauthorized gas use charges to \$25 per Dth from \$15 per Dth.

11  
12 **Q. Why is the proposed sharing of the interruptible customer consumption**  
13 **revenue beneficial?**

14 A. Sharing interruptible commodity revenue with firm rate payers provides an  
15 equitable way to pay the firm rate payers for the use of the system mains that were  
16 built and paid for through rates applied to the firm customers. A subsidiary  
17 benefit to rate payers would be the elimination of the IMCR credit for  
18 interruptible SS-1 contracts. While such special contracts still would exist,  
19 recovery of a credit from the firm rate payers that then would be credited to the  
20 firm customers through sharing would be redundant.

21 **Q. Are there other important benefits to the industrial rate classifications?**

22 A. Because these customers are already under a straight fixed variable rate design,  
23 elimination of the block rates for both firm and transportation customers would

1 serve to reward and incentivize customers to achieve higher load factors that are  
2 beneficial to the distribution system by providing them a with a lower average  
3 unit price than if they had low load factors. The existing multi-step declining  
4 block rate, while providing customers incentive to use more gas, does not  
5 encourage customers to use gas in a system-beneficial manner. Rather, it rewards  
6 high volume customers who can maximize the monthly loads at the expense of  
7 lower volume customers. In addition, it would simplify the rate.

8 ***IV. ENERGY CONSERVATION AND CARES PROGRAMS, CONSERVATION***  
9 ***AND USAGE ADJUSTMENT, AND BARE STEEL AND CAST IRON***  
10 ***PIPELINE REPLACEMENT PROGRAM***

11 **Q. Why are Energy Conservation programs necessary?**

12 A. Under the above-discussed current market conditions, conservation can offer  
13 customers the best opportunity to reduce their energy costs. As evidenced by the  
14 declining use per customer CGC is experiencing, those customers that are aware  
15 of more energy efficient equipment and can afford to make the investment are  
16 doing so. However, without an energy conservation program, many customers  
17 are unaware of the existence and benefits of more energy efficient equipment, and  
18 low-income customers are trapped with lower efficiency equipment due to the  
19 initial investment required to purchase more energy efficient equipment.

20 **Q. What are the specific energy conservation programs that the Company is**  
21 **proposing?**

22 A. CGC proposes a comprehensive plan designed to assist customers with the two  
23 key components of conservation: controlling their current energy costs and



1 acquiring more energy efficient equipment. To help customers control their  
2 current energy costs, the Company proposes two programs, a partially-subsidized,  
3 21-point home energy checkup and inspection and a weatherization kit. A  
4 customer would have to pay \$39 for the energy checkup and inspection, with  
5 CGC picking up the remaining 57% of the cost. The checkup and inspection  
6 would include a filter change-out for their heating and cooling system and the  
7 installation of a modern set-back thermostat. The customer would have to pay  
8 only \$5 for the weatherization kit, and both programs would allow the customer to  
9 save up to \$170 on their energy bill.

10 In addition to these two programs, the Company is proposing a series of rebates  
11 for highly energy efficient furnaces and water heaters to assist customers with the  
12 initial investment of purchasing such equipment.

13 **Q. What are the benefits of these programs to customers?**

14 A. The potential annual savings for customers who purchase energy efficient  
15 equipment and make their homes more energy efficient can be as much as \$530.  
16 As set forth below, the Company's conservation programs are designed to help  
17 customers achieve \$366, or 70% of those total potential cost savings.

18  
19 **Q. Please explain.**

20 A. Customers who choose to replace their aging gas furnaces with another gas  
21 furnace must purchase a furnace that is at least 80% energy efficient (lowest  
22 energy efficient rating is currently 80%). This improvement in energy efficiency

will result in annual savings of up to \$164 per year. The Company's program is designed to provide incentives to customers to purchase a 90% energy efficient furnace, which provides for incremental annual savings of \$61. Additional components of the annual cost savings per customer provided by the Company's program are as follows:

	Potential benefit to the customer
Replace furnace 80% to 90%+ efficient	\$61
Replace water heater with tankless water heater	\$135
21-point checkup with filter replacement	\$60
Install weatherization kit	\$110
Total	<hr/> \$366

Overall, the Company has included \$738,980 in ECP costs in its cost of service. These investments are estimated to provide \$707,102 in annual savings to those customers that participate in the ECP each year thereafter. This results in a payback of less than 13 months.

**Q. Will these programs be of benefit to low-income customers?**

A. Yes. All customers eventually must replace the equipment, regardless of their income. As evidenced by the declining residential use per customer that CGC is experiencing, those customers with incomes that allow them to convert to more energy efficient equipment are doing so. However, a low-income customer may not be able afford the more expensive higher efficiency equipment and, because of cost, elect to go with a less expensive, minimum 80% efficiency furnace or lower efficiency water heater. The proposed rebates are designed to lower the cost differential between high efficiency equipment and lower efficiency units.

1 In a similar manner, many low income customers do not have their equipment  
2 inspected annually, regularly change their heating/cooling system filters, or install  
3 set-back thermostats that would allow them to save on their current energy bills.  
4 Dirty filters alone can decrease the efficiency of their equipment by as much as  
5 10% or \$60 per year both for cooling as well as heating. A set-back thermostat  
6 can save them even more. Likewise, low income customers even more so than  
7 other customers, do not weatherize their homes. With the kit that the Company  
8 proposes to distribute, customers could save as much as \$110 per year on their  
9 energy bills.

10 Finally, CGC is proposing to establish a community outreach program. The best  
11 conservation program in the world is of no benefit to customers if no one knows  
12 about it. Of particular concern is reaching out to low-income customers. This  
13 program would allow the Company to reach to critical community, civic, and  
14 religious organizations currently working with our low-income customers to make  
15 them aware of what the ECP has to offer.

16 **Q. Will the benefits of the ECP be enough to meet the needs of all CGC's low-**  
17 **income customers?**

18 A. No, while the plan does addresses many of the needs of low-income customers,  
19 like weatherization and easing the burden of moving to more efficient appliances  
20 and equipment, it does not go far enough to assist the most at risk group, low-  
21 income seniors. Low-income seniors are on a fixed income and will be the group  
22 most impacted by their inability to afford to invest in more fuel-efficient  
23 equipment. Likewise, they will be the most hurt by any increase in rates. As such,

1 the Company proposes the establishment of the Chattanooga Assisted Rate for  
2 Energy Service (CARES).

3 **Q. How will the CARES rate work?**

4 A. Upon receipt of an application by a qualifying low-income senior, the Company  
5 will discount 100% of the customer-charge portion of CGC's rates.

6 **Q. Who will qualify for the rate?**

7 A. Upon completion of the required application to the Company, all low-income  
8 customers who are over 65 years of age and with annual incomes less than or  
9 equal to the most recent U.S. Commerce Department, Bureau of the Census  
10 poverty thresholds will qualify.

11 **Q. How many customers are projected to take advantage of CARES?**

12 A. Between 889 and 3,555 customers as shown in Exhibit DJN-8.

13 **Q. How does CGC propose to align the interests of its customers and itself?**

14 A. The Company is proposing to recover the lost base revenue attributable to lower  
15 consumption through a Conservation and Usage Adjustment rider to align the  
16 interests of both parties. Annually, actual Company base revenue per customer,  
17 including Weather Normalization Adjustment ("WNA") revenue, will be  
18 compared to those established in this proceeding. The resulting difference per  
19 class then will be multiplied by the actual number of customers to arrive at excess  
20 revenue to be refunded or deficiency to be collected from the class. The excess or  
21 deficiency then will be divided by the annual projected therms for each class to  
22 arrive at the CUA charge or credit rate. Exhibit DJN-9 presents the proposed  
23 recovery mechanism.

1       **Q.     Is the CUA a decoupling mechanism or tariff?**

2       A.     Yes, the CUA is a tariff mechanism that decouples CGC's fixed distribution non-  
3             gas or "non-PGA" costs from the volume of natural gas the Company delivers to  
4             customers. Specifically through a deferral account, the CUA allows CGC to  
5             recover on a per-customer basis that revenue approved by the TRA associated  
6             with its natural gas distribution costs.

7       **Q.     Why will the CUA mechanism provide base-revenue stability for the**  
8             **Company and remove the disincentive to promote significant energy**  
9             **conservation to the benefit of its customers?**

10      A.     Even under the Company's rate design proposal, 56.7% of the Company's base-  
11             revenue requirement still will be recovered through volumetric rates. This means  
12             that CGC's profitability is tied directly to the volume of gas it delivers to  
13             customers. When usage per customer declines as it does when customers reduce  
14             consumption (as CGC's have been doing), even small drops in consumption may  
15             affect profitability significantly. Thus, declining use per customer creates a strong  
16             financial disincentive for CGC or any gas utility to aggressively promote energy  
17             efficiency and conservation. The proposed energy conservation program will only  
18             exacerbate this situation, causing further base-revenue instability for the  
19             Company. By partially decoupling CGC's allowed base-revenue from its  
20             customers' throughput, not only is the disincentive to promote energy  
21             conservation and efficiency removed but part of the Company's base-revenue  
22             stream is stabilized.

1       **Q. Does the current WNA protect the Company against declining use per**  
2       **customer?**

3       A. No, it does not. Though the current WNA does protect the customer and the  
4       Company against variations in weather, it does not protect the Company against  
5       drops in the underlying usage per customer; it does not protect the Company from  
6       declines of normalized base use per customer over time. The WNA works by  
7       looking at deviations from normal weather. It can recover only lost use per  
8       customer to the extent that weather deviates from normal. Further, it does not  
9       protect the Company against drops in non-heating loads.

10      **Q. If rates are set at a level to allow CGC opportunity to recover its costs, by**  
11      **enacting or adopting the Conservation and Usage Adjustment, is not the**  
12      **TRA guaranteeing CGC's rate of return?**

13      A. No, not in the least. The design of the CUA is to collect only the distribution  
14      revenue that the TRA already has deemed appropriate. For the Company to earn  
15      its allowed rate of return, CGC still must control costs and compete both to attract  
16      and retain customers. Therefore, CGC still has the same risks to grow and  
17      generate base revenue from customer growth and retention along with the same  
18      incentives to control costs that it would under traditional ratemaking.

19      **Q. The Company also is proposing a Cast Iron and Bare Steel Replacement**  
20      **Rider. How does the Company propose to recover the cost associated with**  
21      **this program?**

1 A. The Company proposes to recover the costs through a per-customer charge  
2 developed by taking applicable program expenditures and dividing them by the  
3 number of customers projected for the recovery period.

4 ***V. CONCLUSIONS***

5 **Q. Please summarize your conclusions?**

6 A. The proposed rates indicated in Exhibit DJN-3 achieve the primary rate design  
7 objectives of conservation, revenue stability, and fairness in a moderate and  
8 gradual manner. Further, the proposed rates recover CGC's base-revenue  
9 requirement in a reasonable manner, while moderately reducing existing subsidies  
10 among customer classes. Additionally, the proposed customer-charge changes for  
11 some classes result in charges that are closer to cost-based levels. Finally, and  
12 most importantly, the comprehensive rate design plan, including the ECP and  
13 CUA, better aligns the interests of the customers with those of the Company and  
14 provides the Company with an opportunity both to encourage conservation and  
15 earn a fair and reasonable return.

16 **Q. Does this conclude your testimony?**

17 A. Yes, it does.  
18

**Daniel J. Nikolich**  
**Manager, Planning and Forecasting**

---

Mr. Nikolich is the Manager of Planning and Forecasting for AGL Resources who has over 13-years of experience working with regulated rates and tariffs in multiple states. Mr. Nikolich is responsible for overseeing the development of short-term and long-term demand and revenue forecasts, along with short-term and long-term new load growth forecasts. Further, he is responsible for providing economic and statistical analysis for rate design, cost of service and allocation studies. He is also responsible for market research and planning studies along with and maintaining the supporting informational databases in the various states that AGL resources has local distribution companies.

---

**RELEVANT PROJECT EXPERIENCE**

**Regulatory Analysis, Ratemaking, Cost of Service**

- Responsible for the development of cost-of-service, allocation and rate design studies for the 2004 Florida City Gas rate case. Represented the company and supported its position in negotiations with regulatory agencies, customers and intervenors.
- Responsible for rate design studies for the 2003 Florida City Gas Flat Rate billing filing. Provided testimony and represented the company and supported its position in negotiations with regulatory agencies, customers and intervenors.
- Responsible for the development of cost-of-service allocation, weather normalization and rate design studies for the 2002 Elizabethtown Gas rate case. Represented the company and supported its position in negotiations with regulatory agencies, customers and intervenors.
- Responsible for rate design and economic studies and analysis for the 2001 Valley Cities dual issue Customer Assistance Rate and Customer Education Rider rate case. Provided testimony and represented the company and supported its position in negotiations with regulatory agencies, customers and intervenors.
- Responsible for rate design and operational studies for the 2001 North Carolina Third Party Supplier tariff restructuring filing. Provided testimony and represented the company and supported its position in negotiations with regulatory agencies, customers and intervenors.
- Responsible for rate design, operational and economic studies and analysis for the 2000 Valley Cities Gas unbundling filing. Provided testimony and represented the company and supported its position in negotiations with regulatory agencies, customers and intervenors.
- Responsible for the development of cost-of-service, allocation and rate design studies for the 2000 Florida City Gas rate case. Represented the company and



supported its position in negotiations with regulatory agencies, customers and intervenors

**Forecasting**

- Prepared and testified on the forecast for the 2004 Florida City Gas rate case.
- Prepared and testified on the forecast for the 2002 Elizabethtown Gas rate case.
- Developed and prepared 2005-2006 demand and revenue forecasts for Atlanta Gas Light, Chattanooga Gas, Elizabethtown Gas, Elkton Gas, and Florida City Gas. Supervised preparation of the demand and revenue forecast for Virginia Natural Gas.
- Developed and prepared the 1994-2004 demand and revenue forecasts for Elizabethtown Gas, and Florida City Gas.
- Developed and prepared the 1997-2004 forecasts for Elkton Gas.
- Developed and prepared the 1997-2001 forecasts for Valley Cities and Waverly Gas and North Carolina Gas.

**Market Analysis**

- Provided Market Analysis of residential and commercial attrition for Atlanta Gas Light's Georgia Market.
- Provided market analysis of Elizabethtown Gas', Florida City Gas' and Elkton Gas' Markets.
- Provided market analysis of North Carolina Gas' and Valley Cities and Waverly Gas' Markets.

**Expert Witness Testimony Presentation**

- Florida Public Service Commission
- New Jersey Board of Public Utilities
- Pennsylvania Public Utility Commission
- North Carolina Public Utilities Commission

---

**PROFESSIONAL HISTORY**

**AGL Resources (2005 – present)**

Manager, Planning and Forecasting

**NUI Corporation (2001-2005)**

Manager, Planning and Forecasting

**NUI Corporation (1993-2001)**

Forecast Analyst

---

**EDUCATION**

B.S. Business, Economics, College of Business and Economics, University of Idaho,  
1984

supported its position in negotiations with regulatory agencies, customers and intervenors

**Forecasting**

- Prepared and testified on the forecast for the 2004 Florida City Gas rate case.
- Prepared and testified on the forecast for the 2002 Elizabethtown Gas rate case.
- Developed and prepared 2005-2006 demand and revenue forecasts for Atlanta Gas Light, Chattanooga Gas, Elizabethtown Gas, Elkton Gas, and Florida City Gas. Supervised preparation of the demand and revenue forecast for Virginia Natural Gas.
- Developed and prepared the 1994-2004 demand and revenue forecasts for Elizabethtown Gas, and Florida City Gas.
- Developed and prepared the 1997-2004 forecasts for Elkton Gas.
- Developed and prepared the 1997-2001 forecasts for Valley Cities and Waverly Gas and North Carolina Gas.

**Market Analysis**

- Provided Market Analysis of residential and commercial attrition for Atlanta Gas Light's Georgia Market.
- Provided market analysis of Elizabethtown Gas', Florida City Gas' and Elkton Gas' Markets.
- Provided market analysis of North Carolina Gas' and Valley Cities and Waverly Gas' Markets.

**Expert Witness Testimony Presentation**

- Florida Public Service Commission
- New Jersey Board of Public Utilities
- Pennsylvania Public Utility Commission
- North Carolina Public Utilities Commission

---

**PROFESSIONAL HISTORY**

**AGL Resources (2005 – present)**  
Manager, Planning and Forecasting

**NUI Corporation (2001-2005)**  
Manager, Planning and Forecasting

**NUI Corporation (1993-2001)**  
Forecast Analyst

---

**EDUCATION**

B.S. Business, Economics, College of Business and Economics, University of Idaho,  
1984