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July 16, 2009

VIA HAND DELIVERY

Chairman Sara Kyle  
c/o Ms. Sharla Dillon  
Tennessee Regulatory Authority  
460 James Robertson Parkway  
Nashville, Tennessee 37243

Re: **Petition of Piedmont Natural Gas, Inc. for Approval of Service Schedule  
No. 317 and Related Energy Efficiency Programs**  
Docket No. 09-00104

Dear Chairman Kyle:

Enclosed please find an original and seven (7) copies of the Petition of Piedmont Natural Gas, Inc. for Approval of Service Schedule No. 317 and Related Energy Efficiency Programs. This document also has been filed by way of email sent today with the Tennessee Regulatory Authority Docket Manager, Sharla Dillon.

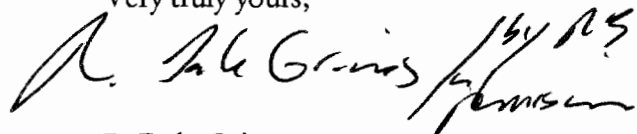
I enclose a check for the filing fee in the amount of \$25.00 payable to the Tennessee Regulatory Authority.

Please stamp two copies of this Petition as "filed" and return them to me by way of our courier.

Should you have any questions concerning any of the enclosed, please do not hesitate to contact me.

With kindest regards, I remain

Very truly yours,



R. Dale Grimes

RDG/smb

Enclosures

Chairman Sara Kyle  
July 16, 2009  
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cc: Hon. Mary Freeman (*w/o enclosure*)  
Hon. Eddie Roberson, Ph.D. (*w/o enclosure*)  
Hon. Kenneth C. Hill (*w/o enclosure*)  
James H. Jeffries, Esq.

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IN RE: )  
 )  
 PETITION OF PIEDMONT NATURAL GAS )  
 COMPANY, INC. FOR APPROVAL OF ) Docket No. 09-  
 SERVICE SCHEDULE NO. 317 AND )  
 RELATED ENERGY EFFICIENCY PROGRAMS )  
 )

Piedmont Natural Gas Company, Inc. ("Piedmont" or the "Company"), through counsel and pursuant to Section 65-4-126 of the Tennessee Code Annotated and Section 1220-4-1-.04 of the Rules of the Tennessee Regulatory Authority, respectfully requests authorization and approval from the Tennessee Regulatory Authority ("Authority") to implement (1) new Service Schedule No. 317, and (2) the proposed energy efficiency programs described herein. The purpose of this filing is to establish appropriate rate mechanisms necessary to permit the active promotion by Piedmont of energy efficiency programs designed to assist Piedmont's Tennessee customers in conserving energy and to establish initial energy efficiency programs to accomplish that goal. This filing is made pursuant to and consistent with the authorizations contained in recently enacted Section 65-4-126 of the Tennessee Code Annotated. In support of its Petition, Piedmont respectfully shows unto the Authority as follows:

- Jane Lewis-Raymond**  
Vice President & General Counsel  
Piedmont Natural Gas Company, Inc.  
Post Office Box 33068  
Charlotte, NC 28233  
Telephone: 704-731-4261

And

R. Dale Grimes  
Bass, Berry & Sims PLC  
315 Deaderick Street, Suite 2700  
Nashville, TN 37238-3001  
Telephone: 615-742-6244

And

James H. Jeffries IV  
Moore & Van Allen PLLC  
100 North Tryon Street, Suite 4700  
Charlotte, NC 28202-4003  
Telephone: 704-331-1079

2. Piedmont Natural Gas Company, Inc. is incorporated under the laws of the State of North Carolina and is duly domesticated and is engaged in the business of transporting, distributing and selling natural gas in the States of Tennessee, North Carolina and South Carolina. Piedmont's principal office and place of business is located at 4720 Piedmont Row Drive, Charlotte, North Carolina.

3. Piedmont's natural gas distribution business is subject to regulation and supervision by the Authority pursuant to Chapter 4 of Title 65 of the Tennessee Code Annotated.

4. Piedmont is engaged in the business of furnishing natural gas to customers located in Nashville and the remainder of Davidson County as well as portions of the adjoining counties of Cheatham, Dickson, Robertson, Rutherford, Sumner, Trousdale, Williamson, and Wilson and in certain incorporated towns and cities located therein.

5. On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009. That Act required, as a condition of receipt of stimulus funds, that the Governor of each state receiving such funds certify to the Secretary of the Department of Energy that the applicable state regulatory authority will seek to:

implement, in appropriate proceedings for each electric and gas utility, with respect to which the State regulatory authority has ratemaking authority, a

general policy that ensures that utility financial incentives are aligned with helping their customers use energy more efficiently and that provide timely cost recovery and a timely earnings opportunity for utilities associated with cost-effective measurable and verifiable efficiency savings, in a way that sustains or enhances utility customers' incentives to use energy more efficiently.

Governor Bredesen provided that certification to the Secretary of the Department of Energy by letter dated March 23, 2009.

6. On June 25, 2009, and consistent with the foregoing, Governor Bredesen signed into law Public Chapter No. 531 (Senate Bill No. 2357). Section 53 of that Act establishes new Section 65-4-126 of the Tennessee Code Annotated which provides, as follows:

The general assembly declares that the policy of this state is that the Tennessee regulatory authority will seek to implement, in appropriate proceedings for each electric and gas utility, with respect to which the authority has rate making authority, a general policy that ensures that utility financial incentives are aligned with helping their customers use energy more efficiently and that provides timely cost recovery and a timely earnings opportunity for utilities associated with cost-effective measurable and verifiable efficiency savings, in a way that sustains or enhances utility customers' incentives to use energy more efficiently.

7. In conformance with the federal and state policies articulated above, Piedmont respectfully submits for approval by the Authority: (a) Piedmont's proposed Service Schedule No. 317 designed to align the financial interests of Piedmont's customers and shareholders with respect to the conservation and efficient use of natural gas by Piedmont's residential customers; and (b) Piedmont's initial proposed energy efficiency programs designed to promote efficiency in natural gas usage and conservation of energy by Piedmont's customers.

8. Under Piedmont's existing volumetric rate design in Tennessee, Piedmont recovers the vast majority of its fixed costs on a per dekatherm basis.<sup>1</sup> This means that Piedmont's ability to recover its operating costs plus its approved return of and on investment – commonly referred to as Piedmont's "margin" – is highly subject to variations in usage by its customers. Under this rate design, Piedmont has a strong incentive to promote the maximum consumption of natural gas by its customers on both an overall and per customer basis

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<sup>1</sup> Fixed costs do not vary with the year-to-year changes in customer usage.

because, put simply, higher consumption equates directly to higher margin. Conversely, lower consumption – which is the natural result of customer conservation and efficiency – equates to lower margin. Because of this inherent dynamic of a volumetric rate structure, it is difficult for Piedmont to actively promote customer conservation and energy efficiency consistent with its own financial interests.

9. Piedmont's existing volumetric rate structure also puts both customers and Piedmont at risk for variations in usage. Customers are at risk for upward variations in usage which could lead to Piedmont recovering more than the annual margin approved by the Authority. Conversely, Piedmont and its shareholders are at risk for downward variations in usage which could lead to Piedmont's recovery of less than the annual margin approved by the Authority. Given these attributes of a volumetric rate design, it is difficult for Piedmont to pursue energy efficiency and conservation programs, despite its abiding belief that such programs are beneficial to its customers and the public at large, without some mechanism to mitigate the detrimental impact on Piedmont from reductions in customer consumption of natural gas.

10. Piedmont's proposed Service Schedule No. 317, attached hereto as Exhibit A, will establish a Margin Decoupling Tracker mechanism designed to allow Piedmont to recover from its residential customers the approved per customer margin found to be just and reasonable and established by the Authority in Piedmont's last general rate proceeding.<sup>2</sup> This mechanism will also align the interests of Piedmont and its customers by ensuring that Piedmont recovers only the level of margin on an average per customer basis approved by the Authority, without regard to the individual usage patterns of its residential customers. In doing so, the tracker mechanism will protect the interests of both Piedmont and its customers. It will also eliminate the negative economic incentive under Piedmont's existing volumetric rate

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<sup>2</sup> Piedmont does not propose at this time to apply its Margin Decoupling Tracker mechanism to either commercial or industrial customers.

structure that currently inhibits Piedmont from actively promoting conservation and energy efficiency programs.

11. Piedmont submits that these attributes of Piedmont's proposed Service Schedule No. 317 directly correlate to and are consistent with the policy goals articulated in T.C.A. § 65-4-126 and, as such, justify prompt approval of that service schedule. Piedmont requests an effective date of September 1, 2009 for Service Schedule No. 317.

12. Piedmont also requests approval herein of three energy efficiency programs attached hereto as Exhibit B. These programs are designed to and will promote effective energy conservation and efficiency by Piedmont's residential customers. These programs consist of a Residential Low-Income Energy Efficiency Program, a High Efficiency Equipment Rebate Program, and a Customer Education Program. The specific attributes of each program are described in detail on Exhibit B. These programs are similar to approved energy efficiency programs operated by Piedmont in North Carolina.

13. Piedmont proposes to initially spend \$500,000 a year on these programs, allocated as indicated on Exhibit B. Of this amount, Piedmont proposes to make shareholder contributions of \$250,000 in the first year, \$150,000 in the second year, and \$75,000 in the third year of the programs. The remaining balance of funds proposed for years 1 through 3, and all funds after year 3 would be recovered from Piedmont's customers through appropriate adjustments to Piedmont's ACA account. The purpose of Piedmont's proposed shareholder contributions to its energy efficiency programs during years 1 through 3 is to demonstrate Piedmont's commitment to the programs and to allow for a "kick-start" to the initiation of active energy efficiency programs sponsored by Piedmont in Tennessee.

14. In order to provide for the accrual of benefits to Tennessee customers under these programs, Piedmont's requests Authority approval thereof as soon as reasonably possible.

WHEREFORE, Piedmont Natural Gas Company, Inc., respectfully requests that the Authority issue an order allowing Piedmont's Service Schedule No. 317 to go into effect on September 1, 2009 and approving implementation of Piedmont's initial proposed energy efficiency programs as soon as reasonably possible.

Respectfully submitted this \_\_\_\_ day of July, 2009.

**Piedmont Natural Gas Company, Inc.**

*R. Dale Grimes / by Rg / permission*

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Charlotte, NC 28202  
(704) 331-1000



STATE OF NORTH CAROLINA  
COUNTY OF MECKLENBURG

**VERIFICATION**

David R. Carpenter, being duly sworn, deposes and says that he is Managing Director, Regulatory Affairs of Piedmont Natural Gas Company, Inc., that as such, he has read the foregoing Petition and knows the contents thereof; that the same are true of his own knowledge except as to those matters stated on information and belief and as to those he believes them to be true.

  
David R. Carpenter

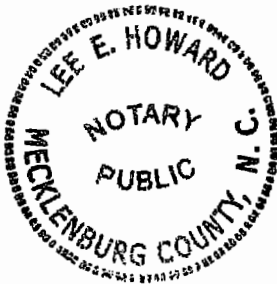
Mecklenburg County, North Carolina  
Signed and sworn to before me this day by David R. Carpenter

Date: 7-16-09

  
Lee E. Howard, Notary Public

(Official Seal)

My commission expires: October 29, 2010



# EXHIBIT A

## **SERVICE SCHEDULE NO. 317**

### **Margin Decoupling Tracker (MDT) Rider**

#### **1. Provision for Adjustment**

The base rates per therm (100,000 Btu) for gas service set forth by the Company in Rate Schedules 301 and 321 shall be adjusted by an amount hereinafter described and referred to as the "Margin Decoupling Adjustment." The Margin Decoupling Adjustment shall be calculated, as a rate decrement or increment, and applied to Rate Schedules 301 and 321 to refund or recover the balance in the "Margin Decoupling Deferred Account." The Margin Decoupling Deferred Account shall be established by a monthly adjustment hereinafter described and referred to as the "Margin Decoupling Deferred Account Adjustment."

#### **2. Definitions**

For the purposes of this Rider:

"Authority" means the Tennessee Regulatory Authority.

"Relevant Rate Order" means the final order of the Authority in the most recent litigated rate case of the Company fixing the rates of the Company or the most recent final order of the Authority specifically prescribing or fixing the factors and procedures to be used in the application of this Rider.

#### **3. Computation of Margin Decoupling Deferred Account Adjustment**

The Margin Decoupling Deferred Account Adjustment, for each of the Rate Schedules 301 and 321, shall be computed monthly to the nearest dollar by the following formulas:

$$\text{Base Load Therms}_i = \text{Actual Customers}_i \times \text{Base Load}_i$$

$$\text{Heat Sensitive Therms}_i = \text{Actual Customers}_i \times \text{Heat Sensitivity Factor}_i \times \text{Normal Degree Days}$$

$$\text{Normalized Therms}_i = \text{Base Load Therms}_i + \text{Heat Sensitive Therms}_i$$

$$\text{Normalized Margin}_i = \text{Normalized Therms}_i \times \text{R Factor}_i$$

$$\text{Actual Margin}_i = \text{Actual Therms}_i \times \text{R Factor}_i$$

$$\text{Margin Decoupling Deferred Account Adjustment}_i = \text{Normalized Margin}_i - \text{Actual Margin}_i - \text{Actual WNA}_i$$

EFFECTIVE: September 1, 2009

Where:

$i$	=	any particular rate schedule
Actual Customers <sub><math>i</math></sub>	=	Actual customers billed for the billing cycle month for the $i^{\text{th}}$ rate schedule
Actual Therms <sub><math>i</math></sub>	=	Actual therms used for the billing cycle month for the $i^{\text{th}}$ rate schedule
R Factor <sub><math>i</math></sub>	=	base rate (approved rate, not including demand and commodity cost of gas) for the $i^{\text{th}}$ rate schedule or classification utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.
Heat Sensitivity Factor <sub><math>i</math></sub>	=	heat sensitive factor for the $i^{\text{th}}$ rate schedule or classification utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.
Normal Degree Days	=	normal, 15 <sup>th</sup> -day to 15 <sup>th</sup> -day, heating degree days utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.
Base Load <sub><math>i</math></sub>	=	base load sales for the $i^{\text{th}}$ schedule or classification utilized by Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.
Actual WNA <sub><math>i</math></sub>	=	Actual Weather Normalization Adjustment used for the billing cycle month for the $i^{\text{th}}$ rate schedule

#### 4. Filing with Authority

The Company will file monthly as directed by the Authority (a) a copy of each computation of the Margin Decoupling Deferred Account Adjustment by rate schedule, (b) a schedule showing the effective date of each such Margin Decoupling Deferred Account Adjustment, and (c) a schedule showing the factors of values derived from the Relevant Rate Order used in calculating such Margin Decoupling Deferred Account Adjustment. Such reports will be filed within 60 days after the end of the month for which the report is being filed.

## 5. Computation of Margin Decoupling Adjustment

The Margin Decoupling Adjustment shall refund or recover the balance in the Margin Decoupling Deferred Account, and shall be applied as a rate decrement or increment effective for both the first billing cycle in April through the final billing cycle in October of each year and for the first billing cycle in November through the final billing cycle in March of each year. The Margin Decoupling Adjustment shall be calculated to the nearest one-thousandth cent per therm by the following formula:

$$\text{Margin Decoupling Adjustment} = \frac{\text{Margin Decoupling Deferred Account Balance}}{\text{Annual Therms}_{ti}}$$

Where:

$$\text{Margin Decoupling Deferred Account Balance} = \text{Balance at December 31 and July 31}$$

$$\text{Annual Therms} = \text{Normalized volumes assigned in most recent rate case}$$

$$ti = \text{Total for Rate Schedules 301 and 321}$$

## 6. Interest

Interest will be applied to the Margin Decoupling Deferred Account at rate equivalent to the interest rate applied to the "Refund Due Customers Account".

## 7. Filing with Authority

The Company will file revised tariffs for Authority approval upon 30 days notice to implement a rate decrement or a rate increment for the Margin Decoupling Adjustment each April and November. With the filing the Company will include a copy of each computation of the Margin Decoupling Adjustment.

# EXHIBIT B

## **Piedmont Natural Gas Company, Inc. Energy Efficiency Program Approval Request**

Piedmont Natural Gas ("Piedmont" or "the Company") plans to spend \$500,000 on an annual basis supporting energy efficiency programs for customers within the Company's Tennessee service territory. During the first year, Piedmont plans to implement a Customer Education Program, a Low-Income Energy Efficiency Program and a High Efficiency Equipment Rebate Program. These programs will be targeted to Piedmont's residential customers.

### **CUSTOMER EDUCATION PROGRAM**

Piedmont will implement a communications campaign focusing on customer energy education, efficiency and conservation messages. Piedmont will spend approximately \$100,000 on this program, using a targeted marketing approach within our service territory. Piedmont will communicate the messages to customers through various means such as bill inserts, other print advertisements, radio and/or other available media. Piedmont will also encourage customers to take advantage of the federal tax credits available for installing high-efficiency natural gas equipment, such as for water heating and space heating. Some program funding may also be used to sponsor energy efficiency and energy conservation education sessions in local schools.

### **RESIDENTIAL LOW-INCOME ENERGY EFFICIENCY PROGRAM**

The primary purpose of this program is to provide energy efficiency measures and weatherization assistance, at least initially through third-party administrators or contractors, to low-income residential customers in Piedmont's service territory. The program is intended to create a more energy efficient and comfortable home environment for the customers served. Piedmont will spend approximately \$150,000 per year on this program.

Piedmont has modeled this program after the Federal Weatherization Assistance program which has been in operation since 1976 and has weatherized over 6.2 million homes with DOE Funds. According to the Department of Energy's Weatherization Assistance Program, the weatherization program, on average, reduces heating bills by up to 32% and overall energy bills by about \$350 per year. In addition to the actual energy savings, there can be additional benefits to the low-income customer including improved health and safety conditions, and increased comfort for residents.

Piedmont has experience in providing energy efficiency measures to low-income households outside of Tennessee. Piedmont anticipates that the program participants in Tennessee will experience reduced energy usage due to the energy efficiency measures installed in their homes under this program. Based on Piedmont's own experience in North Carolina and the success of the Federal Weatherization Assistance program, these types of programs have been shown to be cost-effective and provide a direct benefit to low-income households.

The target population for this program will be low-income customers dwelling in single-family houses that are served under Piedmont's residential rate schedules (rate schedules 301 and 321). Customers who rent single-family homes will be allowed to participate in the program if the homeowner also consents. For the purposes of this program, Piedmont will consider a customer to be "low-income" if their household income is within 200% of the 2009 federal poverty income guidelines as established for the Federal Weatherization Assistance Program. Priority will be placed on providing assistance to eligible elderly individuals, individuals with disabilities, and eligible families with children. The estimated number of annual program participants is between 40 to 55 customers. The amount of energy efficiency measures provided to each participant may range from \$1,500 to \$3,500, and Piedmont anticipates the average cost to be around \$3,000 per home. There will be no direct charge to the participating low-income customers for the services provided.



Piedmont plans to coordinate with the Tennessee Department of Human Services, who administers the Federal Weatherization Program, to assist us in determining local energy contractors or community action agencies that can help administer this program. Program funds will primarily be used to pay for development and administration of the program and for evaluation, measurement and verification of the program. Communications for this program will be handled primarily by the administrator who, at least initially, will be an independent third-party. Thus, it is anticipated that only a small amount of the funding will be spent on program communications, since the administrator is expected to work with local assistance agencies and other organizations in identifying eligible applicants for the program.

The primary energy efficiency measures provided to each program participant will be based on a comprehensive in-home energy audit. The measures to be offered and performed to each program participant may include:

- Sealing major air leaks in floors and ceilings (penetrations, bypasses, chases)
- Insulating attic, side wall, and/or floors
- Sealing and insulating ducts
- Installing programmable/setback thermostat
- Evaluating, cleaning and tuning heating systems
- Installing general heat waste measures (furnace filters, water heater insulation wrap, piping insulation, water-saving devices, and weather-stripping)

Due to safety concerns, a carbon monoxide detector will be installed inside the participant's home if one is not currently installed. An in-home energy education session will also be provided in homes where energy efficiency measures were installed. In the event that an unsafe and un-repairable piece of natural gas equipment is identified within the participant's house, the third-party energy contractor will work with Piedmont to evaluate and determine the best solution. In some cases, the best solution may be to replace the existing natural gas equipment.

## **HIGH EFFICIENCY EQUIPMENT REBATE PROGRAM**

This program will provide rebates to Piedmont's residential customers who purchase and install qualifying high efficiency natural gas equipment. The residential rebates are limited to high efficiency water and space heating equipment only, since water heating and space heating constitutes the largest portion of residential energy usage. This program will enable residential customers to help offset some of the higher cost of choosing a more efficient piece of equipment.

This program is intended to help influence a customer to choose a more energy efficient piece of equipment. An upgrade to a higher efficiency water heater or furnace, given consistent usage patterns, will help the program participant achieve recognizable energy savings. The extent of the energy savings will vary for each participant, depending on a variety of factors including their current energy efficiency.

Piedmont may, at its discretion, lower the rebate amounts offered for each category depending upon the extent of customer participation, timing of implementation, and available funding. The flexibility to adjust incentive levels will allow Piedmont to better maximize the results of the program to promote conservation. In developing the program efficiency requirements, Piedmont chose the same minimum required efficiency standards as those set by Energy Star for the corresponding natural gas equipment. Below is a summary of the equipment rebates that will be offered and the corresponding equipment efficiency requirements.

### **Residential Equipment Rebate Summary**

	Initial (Maximum) Rebate Amount	Minimum Required Efficiency <sup>1</sup>
Natural Gas Storage Tank Water Heater	\$ 50	EF = 0.62 (or greater)
Natural Gas Tankless Water Heater	\$ 250	EF = 0.82 (or greater)
Natural Gas Forced Air Furnace	\$ 300	AFUE = 90% (or greater)

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<sup>1</sup> EF is the Energy Factor; AFUE is the Annual Fuel Utilization Efficiency

The anticipated total annual cost of this program is approximately \$ 250,000. The following is an estimate of the costs involved with implementing this program.

Program Development and Administration	\$ 20,000
Communications	\$ 20,000
Rebate Incentives	\$ 190,000
Evaluation, Measurement & Verification	\$ 20,000
<b>TOTAL</b>	<b>\$ 250,000</b>

Piedmont plans to communicate the program to its customers through the use of bill inserts, bill messages, and advertising on its website. Piedmont may also contact equipment manufacturers, distributors, and installers about the program. This program will be available to customers under Piedmont's residential rate schedules (rate schedules 301 and 321). Each customer will be required to submit a rebate application, along with proof of purchase and installation of the qualifying equipment. Upon approval of the application, the rebate will be mailed as a check to the customer. In addition to the rebate check, each customer that installed qualified equipment under the program will receive an energy efficiency kit that includes items to help the customer further reduce their natural gas energy usage.

In determining whether this program is cost-effective, Piedmont followed the protocols set by the California Standard Practice Manual which outlines the cost-benefit tests that are used in evaluating Energy Efficiency programs. The Total Resource Cost Test and the Utility Cost Test are two commonly used tests to demonstrate cost effectiveness. The Total Resource Cost Test (TRC), which is typically used by utilities for regulatory program approval, measures the net costs of the energy efficiency program as a resource option based on the total costs of the program, including both the participants' and the utility's costs. The Utility Cost Test (UCT), also known as the Program

Administrator Cost Test, measures the net costs of the energy efficiency program as a resource option based on the costs incurred by the program administrator (including incentive costs) and excluding any net costs incurred by the participant.

The program results are listed below:

Total Resource Cost Test	1.16
Utility Cost Test	1.86