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December 19, 2011

Dr. Kenneth Hill
Chairman
Tennessee Regulatory Authority
460 James Robertson Pkwy.
Nashville, TN 37243-0505

Re: *Petition of Piedmont Natural Gas Company, Inc, For Adjustment to its Rates*
Docket No. 11-00144

Dear Chairman:

Please accept for filing the attached pre-filed Direct Testimony of the Consumer Advocate in the above-referenced docket. This information was previously filed under seal out of an abundance of caution due to the large volume of financial information Piedmont Natural Gas Company, Inc. ("Piedmont", "Company") deemed "confidential" under the protective order entered in this docket.

The Consumer Advocate and the Company have worked together to ensure that this information be made public, with the exception of one footnote (no. 5) in the Direct Testimony of William H. Novak and all workpapers related to Dave Peters' Direct Testimony, which will remain under seal.

Sincerely,

Ryan McGehee
Assistant Attorney General
(615) 532-5512

cc: all parties of record in Docket 11-00144

BEFORE
THE TENNESSEE REGULATORY AUTHORITY

Petition of Piedmont Natural Gas Company, Inc. for an Adjustment to its Rates, Approval of Changes to its Rate Design, Amortization of Certain Deferred Assets, Approval of New Depreciation Rates, Approval of Revised Tariffs and Service Regulations, and Approval of a New Energy Efficiency Program and GTI Funding	)	Docket No. 11-00144

DIRECT TESTIMONY
of
WILLIAM H. NOVAK

ON BEHALF OF
THE CONSUMER ADVOCATE AND PROTECTION DIVISION
OF THE
TENNESSEE ATTORNEY GENERAL'S OFFICE

December 6, 2011

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ATTACHMENTS

Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION FOR THE RECORD.

A1. My name is William H. Novak. My business address is 19 Morning Arbor Place, The Woodlands, TX, 77381. I am the President of WHN Consulting, a utility consulting and expert witness services company.[1]

Q2. PLEASE PROVIDE A SUMMARY OF YOUR BACKGROUND AND PROFESSIONAL EXPERIENCE.

A2. A detailed description of my educational and professional background is provided in Attachment WHN-1 to my testimony. Briefly, I have both a Bachelors degree in Business Administration with a major in Accounting, and a Masters degree in Business Administration from Middle Tennessee State University. I am a Certified Management Accountant, and am also licensed to practice as a Certified Public Accountant.

My work experience has centered on regulated utilities for over 25 years. Before establishing WHN Consulting, I was Chief of the Energy & Water Division of the Tennessee Regulatory Authority where I had either presented testimony or advised the Authority on a host of regulatory issues for over 19 years. In addition, I was previously the Director of Rates & Regulatory Analysis for two years with Atlanta Gas Light Company, a natural gas distribution utility with operations in Georgia and Tennessee. I also served for two years as the Vice President of Regulatory Compliance for Sequent Energy Management, a natural

[1] State of Tennessee, Registered Accounting Firm ID 3682.

gas trading and optimization entity in Texas, where I was responsible for ensuring the firm's compliance with state and federal regulatory requirements.

Q3. ON WHOSE BEHALF ARE YOU TESTIFYING?

A3. I am testifying on behalf of the Consumer Advocate & Protection Division ("CAPD" or "the Consumer Advocate") of the Tennessee Attorney General's Office.

Q4. HAVE YOU PRESENTED TESTIMONY IN ANY PREVIOUS PIEDMONT RATE CASES?

A4. Yes. I presented testimony in Dockets U-85-7355, U-87-7499, 89-10491, and 91-02636 concerning either Nashville Gas Company or Piedmont Natural Gas Company ("Piedmont" or "the Company") rate cases as well as other generic tariff and rulemaking dockets. In addition, I advised the TRA Directors in the Company's last rate case (Docket 03-00313) on issues where I did not present testimony.

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A5. My testimony will support and address the CAPD's positions and concerns with respect to the Company's Petition. Specifically, I will address the following:

i. CAPD's proposed attrition period revenue and gas cost calculations;

ii. CAPD's position on Piedmont's proposed Cost of Service Study;

iii. CAPD's proposed rate design;

iv. CAPD's position on Piedmont's proposed cost recovery proposals for an Energy Efficiency Program and GTI Funding; and

v. CAPD's position on certain aspects of Piedmont's proposed tariff revisions.

Q6. WHAT DOCUMENTS HAVE YOU REVIEWED IN PREPARATION OF YOUR TESTIMONY?

A6. I have reviewed the Company's Rate Case Application as filed on September 2, 2011, along with the testimony and exhibits presented with their filing. In addition, I have reviewed the Company's workpapers supporting their attrition period revenues and cost of service study. I have also reviewed the Company's responses to the relevant data requests submitted by the TRA as well the Company's responses to CAPD's discovery requests in these same areas.

I. ATTRITION PERIOD REVENUES & GAS COST

Q7. MR. NOVAK, PLEASE DESCRIBE THE MAJOR AREAS OF DIFFERENCE BETWEEN THE COMPANY'S AND CAPD'S CALCULATION OF ATTRITION PERIOD BILLING DETERMINANTS.

A7. The primary differences are due to different forecasts for normal weather, annualized customer usage and customer growth. As shown in detail on Attachment WHN-2, Schedule 1 and summarized below in Table 1, the CAPD first began with the Company's test period sales and transportation volumes of

296,047,022 therms, 1,988,976 bills and 277,186 billing demand units.[2] We then adjusted for normal weather, annualized customer usage and customer growth to arrive at attrition billing determinants of 288,167,934 therms, 2,021,045 bills and 219,672 billing demand units.

Table 1 – Summary of CAPD Attrition Period Billing Determinants				
	Test Period	**Weather Adjustment**	**Customer Growth**	**Attrition Period**
Bills	1,988,976	0	32,069	2,021,045
Billing Demand	277,186	0	-57,514	219,672
Therms	296,047,022	-5,269,571	-2,609,517	288,167,934

I have also included a detailed comparison with the Company's attrition period billing determinants on Attachment WHN-2, Schedule 2. This comparison is summarized below on Table 2.

Table 2 – Comparison of Company and CAPD Attrition Period Billing Determinants			
	Company	**CAPD**	**Difference**
Bills	2,008,767	2,021,045	12,278
Billing Demand	219,672	219,672	0
Therms	287,155,030	288,167,934	1,012,904

Q8. WHY IS THE CAPD'S WEATHER ADJUSTMENT DIFFERENT FROM THE COMPANY'S?

A8. The CAPD's weather adjustment for the residential and commercial customer classes is different from the Company's for two reasons. First, there were errors in the Company's calculation of normal weather and test period weather.[3] In addition, the Company chose to separately weather normalize the residential and

[2] Billing Demand Units refers to peak day capacity subscribed to by the Company's firm industrial customers on Rate Schedules 303 and 313.

[3] The Company incorrectly calculated normal cycle heating degree days for March as 534 instead of 518. In addition, the Company also incorrectly calculated the cycle heating degree days for May 2011 as 115 instead of 113.

commercial standard and value designations that it now proposes to eliminate whereas the CAPD consolidated these tariff designations in its weather normalization calculation.

Furthermore, with the elimination of the value and standard designations the CAPD believes that the SGS and MGS tariffs[4] need to be combined for weather normalization purposes as they were prior to the Company's 2003 rate case. The CAPD therefore performed separate weather normalization studies for the entire residential and commercial customer classes.

The combination of these two errors results in the entire difference between the Company and CAPD's weather normalization adjustments. In addition, I have also prepared a weather normalization factor summary that is included on Attachment WHN-3 for Weather Normalization Adjustment ("WNA") tracking purposes that implements the CAPD's proposals to consolidate the residential and commercial tariffs.

Q9. HOW HAS THE CAPD ADJUSTED THE ATTRITION PERIOD BILLING DETERMINANTS FOR EXISTING CUSTOMER USAGE?

A9. The CAPD adjusted industrial customer usage by individually analyzing the sales volumes of the Company's 25 largest customers. These 25 customers represented over 72% of the Company's test period volumes to the industrial class. Where we felt that it was necessary, such as a large swing in gas usage or a material tariff

[4] Small General Service and Medium General Service tariffs that comprise the Commercial customer class.

transfer, we adjusted the test period usage to take these changes into account. We then compared our own adjustments with those proposed by the Company. For the most part, we felt that the Company had properly adjusted for any test period anomalies and tariff transfers within the industrial customer group. However, we did find evidence where a large customer's usage was curtailed due to flooding during the test period that the Company didn't include in their filing.[5] As a result, we have made an adjustment of 818,070 therms to properly reflect this customer's going level consumption in the attrition period.[6]

Q10. HOW WERE SALES VOLUMES FOR ADDED CUSTOMERS COMPUTED?

A10. A historical average of added customers to normal plant additions was first calculated. This average was then applied to the CAPD's forecast of attrition period normal plant additions giving residential and commercial "customers to be added" during the attrition year. More simply stated though, the CAPD has increased the number of residential and commercial customers based upon an average historical ratio of customer additions to normal plant additions. These forecasted customer additions were then multiplied by an average usage volume per customer giving additional attrition period sales volumes for the residential and commercial rate classes.

[5] [redacted]

[6] CAPD Workpaper R-7-I-2.02.

While other witnesses will testify more fully on the CAPD's forecast of plant in service, I would like to point out that if the TRA should decide to adjust the CAPD's forecasted plant in service, then a corresponding adjustment should also be made to revenues.

Q11. HOW WERE THE ATTRITION PERIOD BILLING DETERMINANTS TRANSLATED INTO REVENUES?

A11. The attrition period billing determinants as shown on Attachment WHN-2 were multiplied by the existing base tariff rates and the PGA rate based upon the Company's demand and commodity gas costs at April 1, 2011. This gives total attrition period gas sales and transportation revenues of $94,603,962 as shown on Attachment WHN-4 and summarized below in Table 3.

Table 3 – Comparison of Company and CAPD Attrition Period Gross Margin under Current Rates

	Company	CAPD	Difference
Residential	$54,662,151	$55,025,059	$362,908
Commercial	28,683,304	28,803,370	120,066
Industrial	8,315,092	8,428,238	113,146
Special Contract	624,617	434,249	-190,368
Sales for Resale	28,481	28,481	0
Other Revenue	2,005,089	1,884,565	-120,524
Total	**$94,318,734**	**$94,603,962**	**$285,228**

Q12. HOW DID THE CAPD COMPUTE OTHER REVENUES?

A12. Other revenues primarily consist of forfeited discounts, reconnection charges, bad check charges and rental income from utility property. To compute forfeited discounts, the CAPD took the historical ratio of forfeited discounts to residential and commercial revenues, since these are ordinarily the customers who generate

forfeited discounts. This ratio was then multiplied by the attrition period residential and commercial revenues. To compute the other items for this category, I analyzed the test period amounts and adjusted for growth where appropriate. This produced $1,884,565 in Other Revenues as shown on Attachment WHN-4.

Q13. HOW WAS THE CAPD'S COST OF GAS COMPUTED?

A13. We began with the attrition period throughput volumes and billing demand discussed above. These determinants were then priced out at the April 1, 2010 PGA rates. This produced $94,601,622 in gas cost as shown on Attachment WHN-5.

II. COST OF SERVICE STUDY

Q14. PLEASE BRIEFLY EXPLAIN THE PURPOSE OF THE ALLOCATION PROCESS IN THE COMPANY'S COST OF SERVICE STUDY.

A14. The purpose of any Cost of Service Study ("COSS") is to arrive at the cost of serving each customer class and present a systematic approach to allocating this cost (or total revenue requirement) to the different classes of customers. The COSS then provides a measure of guidance for the TRA to consider how to best adjust individual rates for each customer class to produce the total revenue requirement.

Q15. HAVE YOU REVIEWED THE COMPANY'S PROPOSED COST OF SERVICE STUDY IN THIS CASE?

A15. Yes. The Company has developed a COSS that first classifies each element of rate base and income into three categories for demand costs, customer costs and commodity costs. The Company then allocates these classified costs using 40 separate allocation factors.[7] The result of the Company's COSS is to allocate 98% of the operating expenses to residential and commercial customers and allocating the remaining 2% to industrial customers.[8]

Q16. DO YOU AGREE WITH THE COMPANY'S COSS METHODOLOGY IN THIS CASE?

A16. No. There are mathematical errors in the Company's study that need to be corrected.[9] These errors cascade down through the Company's COSS, resulting in errors to other allocation factors that depend upon them.

In addition, the assignment of 40 individual allocation factors to each element of the Company's cost of service is inherently judgmental, and the Company has not introduced any evidence to fully explain their rationale for each individual allocation assignment. For example, the Company has allocated a significant portion of their costs based upon peak day consumption, meaning that almost all of these costs will be allocated to residential and commercial customers without

[7] Direct testimony and exhibits of Company witness Yardley.
[8] Company Exhibit DPY-5, Page 8.
[9] The Company incorrectly calculates the Plant in Service classification by omitting $557,644 in commodity costs. In addition, the Company incorrectly calculates the distribution services classification by omitting $25,937,975 in meter costs.

any discussion or evidence as to why such an allocation is appropriate. I could easily justify allocating many of these same costs based upon the total throughput of each customer class which would then allocate a majority of the costs to industrial customers. Since the Company has not provided any rationale for its individual allocation choices it is impossible to determine their rationale for cost allocation.

Finally, other factors beyond just the cost of service need to also be considered in allocating costs. These other factors include value of service, product marketability, encouragement of efficient use of facilities, broad availability of service functions, and a fair distribution of charges among users. Since it is impossible to properly consider each of these other factors, it follows that no mechanical or mathematical formula can ever be applied to the cost of service that would translate it directly into rates.

Q17. HOW DOES THE CONSUMER ADVOCATE PROPOSE THAT THE TRA ALLOCATE THE COMPANY'S REVENUE REQUIREMENTS TO EACH CUSTOMER CLASS?

A17. The CAPD recommends that its proposed revenue deficiency of $9,863,394 be allocated evenly across-the-board to all customer classes, including special contract customers, based upon the ratio of each customer class' attrition period margin to total attrition period margin. The CAPD's complete revenue deficiency allocation is presented on Exhibit WHN-6 and summarized below on Table 4.

Table 4 – Comparison of Company and CAPD Attrition Period Revenue Deficiency Allocation			
	Current Margin	**CAPD Allocation**	**Company Allocation**
Residential	$55,025,058	59.34%	65.95%
Commercial	28,803,371	31.07%	28.17%
Industrial	8,428,238	9.09%	5.85%
Special Contract & Sale for Resale	462,730	0.50%	0.03%
Other Revenue	1,884,565	- N/A -	- N/A -
Total	**$94,603,962**	**100.00%**	**100.00%**

To summarize the results of Table 4, the CAPD would allocate 59.34% of any revenue increase to residential customers based upon an across-the-board distribution of attrition period margin under current rates. Alternatively, the Company would allocate 65.95% of any revenue increase to residential customers based upon their COSS. The CAPD believes that an across-the-board increase to all customer classes more equitably spreads the burden of any increase in rates and is preferable to the Company's COSS results.

III. RATE DESIGN

Q18. HAVE YOU REVIEWED THE COMPANY'S PROPOSED RATE DESIGN?

A18. Yes. The Company's proposed rate design realigns "…rates within each [customer] class to recover a greater proportion of fixed revenue requirements through fixed charges."[10] Stated more simply, the Company is proposing to reduce its existing base rate commodity charge for all tariffs while increasing the fixed monthly customer charges to make up for the difference. The primary

[10] Direct testimony of Company witness Yardley, page 15, lines 15 – 16.

driver behind this proposal is the continuing decline in sales volumes for new customers. The result of the Company's proposal is a substantial increase of as much as 120% in monthly customer charges.

Q19. DO YOU AGREE WITH THE COMPANY'S RATE DESIGN PROPOSAL?

A19. No. While I do agree that the Company has experienced declines in customer usage due to efficiency and technology gains in gas appliances, I believe that the changes proposed by the Company are too radical to implement in a single rate case.

Q20. WHAT RATE DESIGN DOES THE CAPD PROPOSE?

A20. The CAPD recognizes that the decline in customer usage has impaired the gas utilities ability to earn a fair rate of return. For that reason, we are proposing a gradual shift towards placing more margin on customer charges than through volumetric charges. However, we believe that this revenue shift must occur gradually rather than through an immediate change to a new rate structure. We are therefore proposing that the entire revenue deficiency in this case be recovered through increased customer charges only. In other words, we are proposing that the existing base rate commodity charges remain at their current levels. We feel that this proposal shifts more of the Company's revenue recovery towards fixed charges but avoids a radical change of existing commodity rates. The CAPD's complete rate design is contained on Exhibit WHN-6 and summarized below on Table 5.

Table 5 – CAPD Proposed Rate Design				
Tariff		**Current Rates**	**Company Proposed**	**CAPD Proposed**
Residential				
Summer Bills per Month		$10.00	$17.00	$12.84
Winter Bills per Month		13.00	22.00	16.69
Summer Usage/Therm		0.2700	0.2214	0.2700
Winter Usage/Therm		0.3200	0.2714	0.3200
Commercial				
Small Customer Charges[11]		$29.00	$40.00	$41.31
Medium Customers Charges[12]		75.00	125.00	197.22
Small Summer Usage/Therm		0.3030	0.3277	0.3030
Small Winter Usage/Therm		0.3540	0.3787	0.3540
Medium Summer Usage/Therm		0.3030	0.3398	0.3030
Medium Winter Usage/Therm		0.3540	0.3908	0.3540
Industrial				
Customer Charges per Month		$300.00	$450.00	$710.97
Billing Demand Charges/Therm		0.80	1.00	8.00
Usage – Step 1/Therm		0.09742	0.09948	0.09742
Usage – Step 2/Therm		0.08953	0.09159	0.08953
Usage – Step 3/Therm		0.06450	0.06656	0.06450
Usage – Step 4/Therm		0.02764	0.02970	0.02764
Special Contract		$434,249	$434,249	$480,071
Sales for Resale				
Customer Charges per Month		$0.00	$0.00	$96.95
Billing Demand Charges/Therm		0.80	1.00	0.80
Usage/Therm		0.09000	0.09870	0.09

IV. COST RECOVERY PROPOSALS

Q21. HAS PIEDMONT PROPOSED ANY PARTICULAR PROGRAMS IN THIS RATE CASE WHERE IT SEEKS COST RECOVERY?

[11] Small usage customers are those whose average consumption is less than 200 therms per day.

[12] Medium usage customers are those whose average consumption is greater than or equal to 200 therms per day.

A21. Yes. The Company has proposed what it calls an "Energy Efficiency Program" wherein it would spend $500,000 for educational activities in public schools to promote energy efficiency. The Company has also proposed a $150,000 contribution to the Gas Technology Institute ("GTI") to fund research and development activities. The Company is then asking to recover the $650,000 total cost of both programs through increased rates.

Q22. DOES THE CAPD SUPPORT THE COMPANY'S PROPOSED COST RECOVERY FOR THESE PROGRAMS?

A22. No. The CAPD is opposed to cost recovery for both of the Company's proposed programs. Both of these programs would result in an involuntary tax on gas consumers for funding since neither program is necessary in order to provide utility service. Furthermore, in the case of the Company's proposed "Energy Efficiency Program" there has been no evidence presented that Nashville area schools would allow a private entity to make such a presentation to its students. Finally, the program violates the state's conservation policy on "cost effective, measurable and verifiable savings"[13] since it requires all of the Company's 170,000 customers to pay for the benefits received by as few as 6,800 customers[14].

In the case of GTI funding, the benefits are illusory at best since any successful research would ultimately be marketed to manufacturers in the distant future. The

[13] Section 53 of Public Chapter 531.
[14] Testimony of Company witness Powers, Page 15.

CAPD therefore asks the TRA to reject both of the Company's proposals for cost recovery.

V. TARIFF CHANGES

Q23. MR. NOVAK, HAVE YOU REVIEWED THE TARIFF CHANGES PROPOSED BY THE COMPANY?

A23. Yes. In this case, the Company has proposed the following rate changes to its existing tariff:[15]

- The elimination of the standard/value designations for residential, small general service and medium general service tariffs;
- The elimination of step rates of 20,000 therms/month and 50,000 therms/month respectively for small and medium general service tariffs;
- A two month expansion of the WNA period from November – March to October – April;
- The establishment of a natural gas vehicle rate schedule;
- An update to the weighted average pipeline percentages included in rate schedules 307 and 313; and
- A proposal to retain the current allocation of fixed gas costs by rate class.

[15] Other non-rate changes to the Company's tariff are discussed by other CAPD witnesses.

Q24. What is the CAPD's position with respect to the Company's proposal to remove the standard/value designations for residential, small general service and medium general service tariffs?

A24. These designations were implemented in the Company's last rate case in 2003. However, from the customer's point of view, the designations were meaningless since the rates were the same for both the standard and the value designations. Removing these designations probably makes it easier for these customers to understand their bill. Therefore, the CAPD supports this change.

Q25. What is the CAPD's position with respect to the Company's proposal for eliminating the step rates of 20,000 therms/month and 50,000 therms/month respectively for small and medium general service tariffs?

A25. These step rates were also implemented in the Company's last rate case in 2003. Again however, the steps were meaningless from the customer's point of view since the rates were identical for consumption above and below the step. Removing these steps probably makes it easier for these customers to understand their bill. Therefore, the CAPD supports this change.

Q26. What is the CAPD's position with respect to the Company's proposal to implement a two month expansion of the WNA period?

A26. The CAPD is opposed to the Company's proposal to change the WNA recovery period. Since both the Company and the CAPD are now advocating a shift in revenue recovery towards customer charges and away from commodity charges, it

would appear ill-timed to now implement a change in the WNA recovery period. In addition, since the WNA only addresses commodity charges, this change would impact a smaller portion of the Company's total revenues. The CAPD therefore proposes that the existing WNA period of November – March remain in effect.

Q27. What is the CAPD's position with respect to the Company's proposal to implement a natural gas vehicle tariff?

A27. The Company has proposed a new Rate Schedule 342 for Natural Gas Vehicle Fuel. The Company has also proposed a monthly customer charge of $40 and a consumption charge of $0.23109 per therm. The CAPD believes that the prospects for the natural gas fuel market are good and that this customer group may eventually develop and contribute to the recovery of the Company's common costs. The CAPD therefore supports the Company's initial proposal for this rate schedule until the next rate case.

Q28. What is the CAPD's position with respect to the Company's update to the weighted average pipeline percentages included in rate schedules 307 and 313?

A28. Rate Schedule 307 (Balancing, Cash-Out and Agency Authorization) and Rate Schedule 313 (Firm Transportation Service) both contain identical provisions that reflect the weighted average ratio of winter capacity from delivering pipelines. These percentages remain in effect until the Company's next rate case. The

current and Company proposed values for these percentages are shown below in Table 6.

Table 6 – Pipeline Percentages		
Pipeline	**Current**	**Proposed**
TEXAS (SOUTH/EAST), Tenn Zone 1 Zone 0: South	28.36%	30.28%
GULF COAST, Tenn 500 So La Z1 Louisiana	65.32%	38.06%
GULF COAST, Tenn 800 So La Z1	6.32%	31.66%
Total	**100.00%**	**100.00%**

The CAPD has reviewed the Company's proposed calculations of the test period pipeline percentages and supports their inclusion in the tariff for Rate Schedules 307 and 313.

Q29. What is the CAPD's position with respect to the Company's position to retain the current allocation of fixed gas costs by rate class?

A29. The CAPD is opposed to the Company's position on this issue. In the Company's last rate case, the TRA approved a new mechanism whereby the Company was allowed to recover different amounts of pipeline demand charges from different customer classes. A copy of these fixed gas costs are included in Company Exhibits DRC-4 and PKP-1. Currently, no other gas utility has such a mechanism that allows for variable fixed gas rate recovery from different customer classes. Instead, these fixed gas costs are recovered through the PGA process and typically included in the commodity PGA for most customers.[16]

[16] Industrial Rate 303 and 313 customers have unique demand billing attributes assigned to them.

The sole purpose for the implementation of variable demand charges in the last rate case was to place a higher charge for demand recovery from "standard rate" customers than from "value rate" customers. In fact, except for the demand recovery rates, the current value/standard designations for residential and commercial customers are identical. Now, with the elimination of the standard/value designations, the use of variable demand charges serves no purpose. The CAPD therefore recommends that all variable demand charges be eliminated and that the Company revert to filing for its fixed cost recovery through the PGA.

Q30. DOES THIS COMPLETE YOUR TESTIMONY?

A30. Yes it does. However I reserve the right to incorporate any new information that may subsequently become available.

IN THE TENNESSEE REGULATORY AUTHORITY
AT NASHVILLE, TENNESSEE

IN RE:	)	
	)	
Petition of Piedmont Natural Gas	)	
Company, Inc. for an Adjustment to its	)	
Rates, Approval of Changes to its Rate	)	Docket No. 11-00144
Design, Amortization of Certain Deferred	)	
Assets, Approval of New Depreciation	)	
Rates, Approval of Revised Tariffs and	)	
Service Regulations, and Approval of a	)	
New Energy Efficiency Program and GTI	)	
Funding	)	

AFFIDAVIT

I, William H. Novak, CPA, on behalf of the Consumer Advocate Division of the Attorney General's Office, hereby certify that the attached Direct Testimony represents my opinion in the above-referenced case and the opinion of the Consumer Advocate Division.

WILLIAM H. NOVAK

Sworn to and subscribed before me
this 28 **day of** NOV **, 2011.**

NOTARY PUBLIC

My commission expires: 2-24-15

TAMMY L. JONES
Notary Public
STATE OF TEXAS
My Comm. Exp. 02-24-15

ATTACHMENT WHN-1

William H. Novak Vitae

William H. Novak
19 Morning Arbor Place
The Woodlands, TX 77381

Phone: 713-298-1760
Email: halnovak@whnconsulting.com

Areas of Specialization

Over twenty-five years of experience in regulatory affairs and forecasting of financial information in the rate setting process for electric, gas, water and wastewater utilities. Presented testimony and analysis for state commissions on regulatory issues in four states and has presented testimony before the FERC on electric issues.

Relevant Experience

WHN Consulting – September 2004 to Present

In 2004, established WHN Consulting to provide utility consulting and expert testimony for energy and water utilities. Complete needs consultant to provide the regulatory and financial expertise that enabled a number of small gas and water utilities to obtain their Certificate of Public Convenience and Necessity (CCN) that included forecasting the utility investment and income. Also provided the complete analysis and testimony for utility rate cases including revenues, operating expenses, taxes, rate base, rate of return and rate design for utilities in Tennessee. Assisted American Water Works Company in preparing rate cases in Ohio and Iowa. Provided commercial and industrial tariff analysis and testimony for an industrial intervenor group in a large gas utility rate case. Industry spokesman for water utilities dealing with utility commission rulemaking. Consultant for the North Carolina and Illinois Public Utility Commissions in carrying out their oversight functions of Duke Energy and Peoples Gas Light and Coke Company through focused management audits. Also provide continual utility accounting services and preparation of utility commission annual reports for water and gas utilities.

Sequent Energy Management – February 2001 to July 2003

Vice-President of Regulatory Compliance for approximately two years with Sequent Energy Management, a gas trading and optimization affiliate of AGL Resources. In that capacity, directed the duties of the regulatory compliance department, and reviewed and analyzed all regulatory filings and controls to ensure compliance with federal and state regulatory guidelines. Engaged and oversaw the work of a number of regulatory consultants and attorneys in various states where Sequent has operations. Identified asset management opportunities and regulatory issues for Sequent in various states. Presented regulatory proposals and testimony to eliminate wholesale gas rate fluctuations through hedging of all wholesale gas purchases for utilities. Also prepared testimony to allow gas marketers to compete with utilities for the transportation of wholesale gas to industrial users.

Atlanta Gas Light Company – April 1999 to February 2001

Director of Rates and Regulatory Analysis for approximately two years with AGL Resources, a public utility holding company serving approximately 1.9 million customers in Georgia, Tennessee, and Virginia. In that capacity, was instrumental in leading Atlanta Gas Light Company through the most complete and comprehensive gas deregulation process in the country that involved terminating the utility's traditional gas recovery mechanism and instead allowing all 1.5 million AGL Resources customers in Georgia to choose their own gas marketer. Also responsible for all gas deregulation filings, as well as preparing and defending gas cost recovery and rate filings. Initiated a weather normalization adjustment in Virginia to track adjustments to company's revenues based on departures from normal weather. Analyzed the regulatory impacts of potential acquisition targets.

Tennessee Regulatory Authority – Aug. 1982 to Apr 1999; Jul 2003 to Sep 2004

Employed by the Tennessee Regulatory Authority (formerly the Tennessee Public Service Commission) for approximately 19 years, culminating as Chief of the Energy and Water Division. Responsible for directing the division's compliance and rate setting process for all gas, electric, and water utilities. Either presented analysis and testimony or advised the Commissioners/Directors on policy setting issues, including utility rate cases, electric and gas deregulation, gas cost recovery, weather normalization recovery, and various accounting related issues. Responsible for leading and supervising the purchased gas adjustment (PGA) and gas cost recovery calculation for all gas utilities. Responsible for overseeing the work of all energy and water consultants hired by the TRA for management audits of gas, electric and water utilities. Implemented a weather normalization process for water utilities that was adopted by the Commission and adopted by American Water Works Company in regulatory proceedings outside of Tennessee.

Education

B.A, Accounting, Middle Tennessee State University, 1981
MBA, Middle Tennessee State University, 1997

Professional

Certified Public Accountant (CPA), Tennessee Certificate # 7388
Certified Management Accountant (CMA), Certificate # 7880
Former Vice-Chairman of National Association of Regulatory Utility Commission's Subcommittee on Natural Gas

ATTACHMENT WHN-2

CAPD Pro Forma Billing Determinants

Piedmont-Nashville
CAPD Pro Forma Billing Determinants

Attachment WHN-2
Schedule 1

Line No.	Tariff	Test Period	Weather Adjustment	Customer Growth	Attrition Period
	Residential				
1	Bills - Winter	749,069		10,972	760,041
2	Bills - Summer	1,036,462		19,388	1,055,850
3	**Total Bills**	**1,785,531**		**30,360**	**1,815,891**
4	Therms - Winter	90,323,919	-5,078,068	5,443,127	90,688,978
5	Therms - Summer	22,684,308	1,511,077	-3,582,230	20,613,155
6	**Total Volumes**	**113,008,227**	**-3,566,991**	**1,860,897**	**111,302,133**
	Commercial (SGS and MGS):				
7	Bills - Winter	84,677		596	85,273
8	Bills - Summer	116,550		1,124	117,674
9	**Total Bills**	**201,227**		**1,720**	**202,947**
10	Therms - Winter	48,785,794	-2,413,430	2,580,102	48,952,466
11	Therms - Summer	19,001,521	710,850	-2,015,236	17,697,135
12	**Total Volumes**	**67,787,315**	**-1,702,580**	**564,866**	**66,649,601**
	Industrial Sales & Transportation:				
13	Bills	2,162		2	2,164
14	Demand	277,186		-57,514	219,672
15	First 15,000 Therms	23,059,400		132,180	23,191,580
16	Next 25,000 Therms	16,334,970		250,000	16,584,970
17	Next 50,000 Therms	12,550,840		578,340	13,129,180
18	Over 90,000 Therms	40,188,720		11,571,500	51,760,220
19	**Total Volumes**	**92,133,930**		**12,532,020**	**104,665,950**
	Special Contract:				
20	Bills	25		-13	12
21	Therms	23,014,430		-17,567,300	5,447,130
	Sale for Resale:				
22	Bills	31		0	31
23	Demand	16,800		-14,400	2,400
24	Therms	103,120		0	103,120
25	**Total Bills**	**1,988,976**	**0**	**32,069**	**2,021,045**
26	**Total Demand**	**277,186**	**0**	**-57,514**	**219,672**
27	**Total Therms**	**296,047,022**	**-5,269,571**	**-2,609,517**	**288,167,934**

SOURCE: CAPD Revenue Workpaper R-13.01.

Piedmont-Nashville
Comparison of Company and CAPD Pro Forma Billing Determinants

Attachment WHN-2
Schedule 2

Line No.	Consumer Advocate	Company A/	CAPD B/	Difference
	Residential			
1	Bills - Winter	758,266	760,041	1,775
2	Bills - Summer	1,047,658	1,055,850	8,192
3	**Total Bills**	**1,805,924**	**1,815,891**	**9,967**
4	Therms - Winter	88,586,380	90,688,978	2,102,598
5	Therms - Summer	22,149,900	20,613,155	-1,536,745
6	**Total Volumes**	**110,736,280**	**111,302,133**	**565,853**
	Commercial (SGS and MGS):			
7	Bills - Winter	84,670	85,273	603
8	Bills - Summer	115,954	117,674	1,720
9	**Total Bills**	**200,624**	**202,947**	**2,323**
10	Therms - Winter	47,577,320	48,952,466	1,375,146
11	Therms - Summer	19,142,250	17,697,135	-1,445,115
12	**Total Volumes**	**66,719,570**	**66,649,601**	**-69,969**
	Industrial Sales & Transportation:			
13	Bills	2,152	2,164	12
14	Demand	219,672	219,672	0
15	First 15,000 Therms	23,194,400	23,191,580	-2,820
16	Next 25,000 Therms	16,559,970	16,584,970	25,000
17	Next 50,000 Therms	13,000,840	13,129,180	128,340
18	Over 90,000 Therms	48,167,520	51,760,220	3,592,700
19	**Total Volumes**	**100,922,730**	**104,665,950**	**3,743,220**
	Special Contract:			
20	Bills	36	12	-24
21	Therms	8,673,330	5,447,130	-3,226,200
	Sale for Resale:			
22	Bills	31	31	0
23	Demand	2,400	2,400	0
24	Therms	103,120	103,120	0
25	**Total Bills**	**2,008,767**	**2,021,045**	**12,278**
26	**Total Demand**	**219,672**	**219,672**	**0**
27	**Total Therms**	**287,155,030**	**288,167,934**	**1,012,904**

A/ Company Exhibit DRC-1.
B/ CAPD Attachment WHN-2, Schedule 1.

ATTACHMENT WHN-3
WNA Factors

Piedmont-Nashville
Summary of WNA Factors

Attachment WHN-3
Schedule 1

Tariff	"R" Value ($/Therm)	Heat Factor (Therms/DDD)	Base Factor (Therms/Mo.)
Residential	TBD	0.17945	7.91318
Commercial (SGS & MGS)	TBD	0.74873	104.85079

Piedmont-Residential
Cycle Weather Normalization
Nashville Heating Degree Days

Attachment WHN-3
Schedule 2

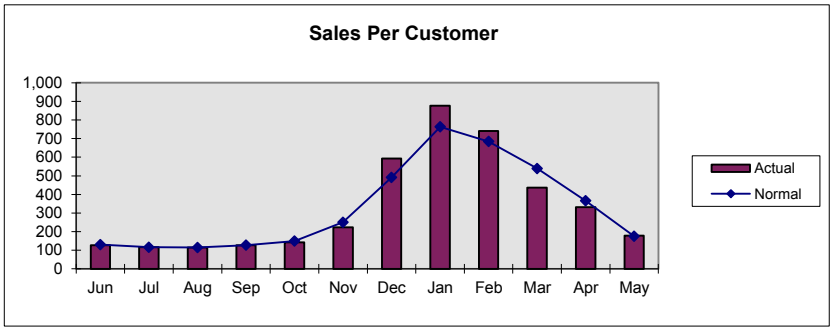
For the 12 Months Ended May 31, 2011

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
June	1,986,500	147,976	13.4245	10	16
July	1,603,102	147,825	10.8446	0	0
August	1,514,414	147,449	10.2708	0	0
September	1,613,034	146,860	10.9835	0	1
October	2,222,777	146,626	15.1595	69	77
November	5,296,044	147,737	35.8478	274	311
December	17,168,174	149,341	114.9595	715	579
January	29,307,299	150,511	194.7187	949	798
February	24,595,687	150,767	163.1371	881	806
March	13,956,715	150,713	92.6046	381	518
April	9,923,668	150,258	66.0442	278	324
May	3,820,813	149,468	25.5627	113	108
TOTAL	**113,008,227**	**1,785,531**	**753.5574**	**3,670**	**3,538**

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
June	5.9400	1.0660	14.4905	2,144,242	157,742
July	0.0600	0.0108	10.8554	1,604,699	1,597
August	0.1000	0.0179	10.2887	1,517,053	2,639
September	0.7200	0.1292	11.1127	1,632,008	18,974
October	8.1200	1.4572	16.6167	2,436,440	213,663
November	37.0700	6.6524	42.5002	6,278,850	982,806
December	-136.2800	-24.4561	90.5034	13,515,876	-3,652,298
January	-151.0900	-27.1138	167.6049	25,226,374	-4,080,925
February	-75.3900	-13.5291	149.6080	22,555,945	-2,039,742
March	137.2500	24.6302	117.2348	17,668,806	3,712,091
April	46.1500	8.2818	74.3260	11,168,075	1,244,407
May	-4.7700	-0.8560	24.7067	3,692,868	-127,945
TOTAL	**-132.1200**	**-23.7095**	**729.8479**	**109,441,236**	**-3,566,991**

Regression Output:

Constant	7.91317500
Std Err of Y Est	12.60424070
R Squared	0.96550403
X Coefficient	0.17945485
Std Err of Coef.	0.01072661



Piedmont-Commercial
Cycle Weather Normalization
Nashville Heating Degree Days

Attachment WHN-3
Schedule 3

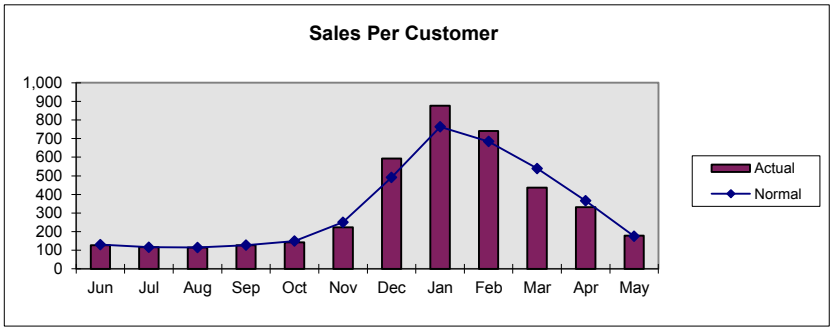
For the 12 Months Ended May 31, 2011

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
June	2,109,703	16,731	126.0955	10	16
July	1,935,453	16,655	116.2085	0	0
August	1,895,701	16,581	114.3297	0	0
September	2,084,668	16,448	126.7429	0	1
October	2,343,194	16,390	142.9649	69	77
November	3,678,624	16,535	222.4750	274	311
December	10,022,339	16,902	592.9676	715	579
January	14,973,464	17,093	875.9998	949	798
February	12,675,291	17,104	741.0717	881	806
March	7,436,076	17,043	436.3126	381	518
April	5,626,926	16,956	331.8546	278	324
May	3,005,876	16,789	179.0384	113	108
TOTAL	**67,787,315**	**201,227**	**4,006.0612**	**3,670**	**3,538**

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
June	5.9400	4.4475	130.5430	2,184,114	74,411
July	0.0600	0.0449	116.2534	1,936,201	748
August	0.1000	0.0749	114.4046	1,896,943	1,242
September	0.7200	0.5391	127.2820	2,093,535	8,867
October	8.1200	6.0797	149.0446	2,442,840	99,646
November	37.0700	27.7555	250.2305	4,137,561	458,937
December	-136.2800	-102.0374	490.9302	8,297,703	-1,724,636
January	-151.0900	-113.1261	762.8737	13,039,800	-1,933,664
February	-75.3900	-56.4470	684.6247	11,709,822	-965,469
March	137.2500	102.7637	539.0763	9,187,478	1,751,402
April	46.1500	34.5540	366.4086	6,212,824	585,898
May	-4.7700	-3.5715	175.4669	2,945,914	-59,962
TOTAL	**-132.1200**	**-98.9227**	**3,907.1385**	**66,084,735**	**-1,702,580**

Regression Output:

Constant	104.85079190
Std Err of Y Est	42.16793515
R Squared	0.97754372
X Coefficient	0.74873344
Std Err of Coef.	0.03588624



Piedmont-Nashville
Nashville 30 Year Daily Normal Heating Degree Days

Attachment WHN-3
Schedule 4

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	25.57	22.67	19.40	11.23	2.77	0.30	0.00	0.00	0.00	2.33	7.67	20.77
2	24.30	22.67	17.57	8.73	2.63	0.13	0.00	0.00	0.00	2.77	9.80	21.10
3	24.20	24.20	19.03	8.47	4.27	0.13	0.00	0.00	0.00	3.20	11.60	20.00
4	24.43	26.30	16.40	10.00	4.47	0.13	0.00	0.00	0.00	2.73	12.10	21.37
5	25.93	27.10	16.70	11.03	2.97	0.07	0.00	0.00	0.03	3.07	12.70	23.37
6	24.60	26.67	16.77	10.70	2.27	0.10	0.00	0.00	0.13	3.50	14.80	24.47
7	25.73	26.47	17.13	9.33	1.73	0.10	0.00	0.00	0.03	4.77	13.43	23.63
8	27.50	25.47	16.33	8.37	1.87	0.00	0.00	0.00	0.00	4.33	12.70	21.77
9	26.37	25.30	17.53	10.13	1.63	0.00	0.00	0.00	0.00	3.67	11.50	21.50
10	26.77	25.30	18.87	9.03	1.73	0.07	0.00	0.00	0.00	3.73	13.27	22.53
11	28.20	24.33	17.17	6.40	1.47	0.00	0.00	0.00	0.00	4.33	13.80	22.60
12	25.37	25.50	15.63	6.47	1.20	0.03	0.00	0.00	0.00	4.27	15.60	23.63
13	25.73	24.70	14.67	6.63	1.70	0.17	0.00	0.10	0.10	4.43	15.40	23.17
14	27.57	21.77	15.03	5.50	1.63	0.00	0.00	0.00	0.23	5.33	14.50	22.40
15	28.57	21.57	13.63	7.10	1.70	0.00	0.00	0.00	0.10	4.93	14.67	22.30
16	28.30	21.63	13.93	7.47	2.20	0.00	0.00	0.00	0.33	5.87	15.97	23.80
17	27.90	22.50	12.77	7.50	1.77	0.00	0.00	0.00	0.47	5.77	16.83	23.30
18	28.43	21.13	11.53	6.03	1.57	0.00	0.00	0.00	0.33	5.80	15.37	25.20
19	29.43	20.53	12.63	4.93	1.33	0.00	0.00	0.00	0.60	7.50	12.83	26.23
20	29.30	17.83	12.57	4.60	1.17	0.00	0.00	0.00	0.53	7.73	14.47	26.80
21	29.07	16.47	14.97	5.13	1.30	0.03	0.00	0.00	1.27	6.17	16.77	25.30
22	26.70	19.50	14.70	4.53	1.20	0.03	0.00	0.00	1.53	6.70	17.57	24.70
23	26.30	19.37	12.80	5.20	0.43	0.00	0.00	0.00	1.80	7.47	16.67	26.00
24	26.00	20.33	12.00	4.93	0.27	0.00	0.00	0.00	1.80	8.53	17.57	28.43
25	27.93	21.10	11.27	3.97	0.63	0.00	0.00	0.00	1.27	8.10	15.93	31.37
26	29.00	20.57	11.37	4.07	0.27	0.00	0.00	0.00	1.60	7.70	15.03	28.70
27	27.97	19.70	11.03	4.70	0.47	0.00	0.00	0.00	2.07	9.03	14.60	23.33
28	25.70	20.80	10.33	4.63	0.47	0.00	0.00	0.03	1.83	9.50	17.30	22.77
29	23.83	4.93	10.90	3.80	0.67	0.00	0.00	0.07	2.10	8.53	18.30	24.47
30	24.33		11.33	2.70	0.53	0.00	0.00	0.00	2.20	7.10	18.90	24.17
31	25.40		10.90		0.43		0.00	0.00		6.03		22.50
Calendar Total	**826**	**636**	**447**	**203**	**49**	**1**	**0**	**0**	**20**	**175**	**438**	**742**
Cycle Total	**798**	**806**	**518**	**324**	**108**	**16**	**0**	**0**	**1**	**77**	**311**	**579**

NON-LEAP YEAR TOTAL	**3,538**
LEAP YEAR TOTAL	**3,553**

Note: Degree Days for February 29 must be multiplied by 4 to arrive at the true DDD for this day.
NOTE: AVERAGE IS FOR THE 30 YEAR PERIOD ENDED: May, 2011.

ATTACHMENT WHN-4

Revenue Comparison

Piedmont-Nashville
Attrition Period Revenue Summary Comparison

Attachment WHN-4
Schedule 1

Line No.	Consumer Advocate	Demand Units	Bills	Sales Volumes	Gross Margin A/
1	**Residential**		1,815,891	111,302,133	$55,025,059
	Commercial				
2	Small General Service		198,023	50,982,004	$23,099,911
3	Medium General Service		4,924	15,667,597	5,703,459
4	**Total Commercial**		**202,947**	**66,649,601**	**$28,803,370**
	Industrial				
5	Firm Sales	61,947	475	5,628,480	1,154,835
6	Interruptible Sales		15	19,280	6,378
7	Firm Transportation	157,725	1,021	18,057,200	3,223,277
8	Interruptible Transportation		653	80,960,990	4,043,748
9	**Total Industrial**	**219,672**	**2,164**	**104,665,950**	**$8,428,238**
10	**Special Contract**		12	5,447,130	434,249
11	**Sales for Resale**	2,400	31	103,120	28,481
12	**Total Sales & Transportation**	**222,072**	**2,021,045**	**288,167,934**	**$92,719,397**
13	Other Revenues				1,884,565
14	**Total Revenues**				**$94,603,962**

	Company	Demand Units	Bills	Sales Volumes	Gross Margin B/
15	**Residential**		1,805,924	110,736,270	$54,662,151
	Commercial				
16	Small General Service		195,782	51,281,220	$23,081,065
17	Medium General Service		4,842	15,438,360	5,602,239
18	**Total Commercial**		**200,624**	**66,719,580**	**$28,683,304**
	Industrial				
19	Firm Sales	61,947	475	5,628,480	1,154,835
20	Interruptible Sales		15	19,280	6,378
21	Firm Transportation	157,725	1,021	18,057,200	3,223,275
22	Interruptible Transportation		641	77,217,770	3,930,604
23	**Total Industrial**	**219,672**	**2,152**	**100,922,730**	**$8,315,092**
24	**Special Contract**		36	8,673,330	624,617
25	**Sales for Resale**	2,400	31	103,120	28,481
26	**Total Sales & Transportation**	**222,072**	**2,008,767**	**287,155,030**	**$92,313,645**
27	Other Revenues				2,005,089
28	**Total Revenues**				**$94,318,734**

A/ CAPD Revenue Workpaper R-13.00.
B/ Company Exhibits DRC-1 and PKP-1.

ATTACHMENT WHN-5

Gas Cost Calculation

Piedmont-Nashville
Gas Cost Calculation

Attachment WHN-5
Schedule 1

Line No.	Consumer Advocate	Revenue	Margin	Gas Cost A/
1	Residential (301)	$111,860,380	$55,025,059	$56,835,321
	Commercial			
2	Small General Service (302)	$49,080,850	$23,099,911	$25,980,939
3	Medium General Service (352)	13,423,825	5,703,459	7,720,366
4	**Total Commercial**	**$62,504,675**	**$28,803,370**	**$33,701,305**
	Industrial			
5	Firm Sales (303)	$4,160,219	$1,154,835	$3,005,384
6	Interruptible Sales (304)	16,210	6,378	9,831
7	Firm Transportation (313)	4,039,490	3,223,277	816,213
8	Interruptible Transportation (314)	4,098,048	4,043,748	54,300
9	**Total Industrial**	**$12,313,966**	**$8,428,238**	**$3,885,728**
10	Special Contract	552,454	434,249	118,205
11	Sales for Resale (310)	89,544	28,481	61,063
12	**Total Sales & Transportation**	**$187,321,019**	**$92,719,397**	**$94,601,622**

	Company	Revenue	Margin	Gas Cost B/
13	Residential (301)	$111,208,831	$54,662,151	$56,546,680
	Commercial			
14	Small General Service (302)	$49,214,518	$23,081,065	$26,133,453
15	Medium General Service (352)	13,209,710	5,602,239	7,607,471
16	**Total Commercial**	**$62,424,228**	**$28,683,304**	**$33,740,924**
	Industrial			
17	Firm Sales (303)	$4,160,218	$1,154,835	$3,005,383
18	Interruptible Sales (304)	16,210	6,378	9,832
19	Firm Transportation (313)	4,039,484	3,223,275	816,209
20	Interruptible Transportation (314)	3,984,729	3,930,604	54,125
21	**Total Industrial**	**$12,200,641**	**$8,315,092**	**$3,885,549**
22	Special Contract	742,822	624,617	118,205
23	Sales for Resale (310)	89,544	28,481	61,063
24	**Total Sales & Transportation**	**$186,666,066**	**$92,313,645**	**$94,352,421**

A/ CAPD Revenue Workpapers R-13.02.
B/ Company Exhibit DRC-1.

ATTACHMENT WHN-6
CAPD Proposed Rate Design

Piedmont-Nashville
CAPD Proposed Rate Design

Attachment WHN-6
Schedule 1

Tariff	Billing Determinants	Current Base Rates	Current Margin	Revenue Deficiency	Proposed Margin	Proposed Base Rates	Percent Increase
Residential							
Customer Charges							
Summer	1,055,850	$10 00	$10,558,498	$2,999,415	$13,557,913	$12 84	28.41%
Winter	760 041	$13 00	9 880 535	2 806 822	12 687 357	$16 69	28.41%
Total Customer Charge Margin	**1,815,891**		**$20,439,033**	**$5,806,238**	**$26,245,271**		**28.41%**
Commodity Charges							
Summer Therms	20,613,155	$0.27000	$5,565,552	$0	$5,565,552	$0 27000	0 00%
Winter Therms	90,688,978	0.32000	29,020,473	0	29,020,473	0 32000	0 00%
Total Commodity Charge Margin	**111,302,133**		**$34,586,025**	**$0**	**$34,586,025**		**0.00%**
Total Residential		1	**$55,025,058**	**$5,806,238**	**$60,831,296**		**10.55%**
				$5,806,238	**$60,831,296**		
Commercial							
Small General Service							
Customer Charges							
Summer	114,819	$29 00	$3,329,743	$1,413,323	$4,743,066	$41 31	42.45%
Winter	83 204	$29 00	2 412 926	1 024 177	3 437 103	$41 31	42.45%
Total Customer Charge Margin	**198,023**		**$5,742,669**	**$2,437,500**	**$8,180,169**		**42.45%**
Commodity Charges							
Summer Therms	13,536,997	$0.30300	$4,101,710	$0	$4,101,710	$0 30300	0 00%
Winter Therms	37 445 007	0.35400	13 255 533	0	13 255 533	0 35400	0 00%
Total Commodity Charge Margin	**50,982,004**		**$17,357,243**	**$0**	**$17,357,243**		**0.00%**
Total Small General Service			**$23,099,912**	**$2,437,500**	**$25,537,412**		**10.55%**
Medium General Service							
Customer Charges							
Summer	2,855	$75 00	$214,128	$348,956	$563,084	$197 22	162 97%
Winter	2,069	$75 00	155,169	252,873	408,042	$197 22	162 97%
Total Customer Charge Margin	**4,924**		**$369,297**	**$601,828**	**$971,125**		**162.97%**
Commodity Charges							
Summer Therms	4,160,139	$0.30300	$1,260,522	$0	$1,260,522	$0 30300	0 00%
Winter Therms	11,507,458	0.35400	4,073,640	0	4,073,640	0 35400	0 00%
Total Commodity Charge Margin	**15,667,597**		**$5,334,162**	**$0**	**$5,334,162**		**0.00%**
Total Medium General Service			**$5,703,459**	**$601,828**	**$6,305,287**		**10.55%**
Total Commercial		0.310650974	**$28,803,371**	**$3,039,328**	**$31,842,699**		**10.55%**
				$3,039,328	**$31,842,699**		
Industrial							
Customer Charges	**2,164**	$300.00000	**$649,200**	**$889,347**	**$1,538,547**	$710 97	**136.99%**
Volumetric Charges							
Step 1 - 0 to 15,000 Therms per Month	23,191,580	$0.09742	$2,259,324	$0	$2,259,324	$0 09742	0 00%
Step 2 - 15,001 to 40,000 Therms per Month	16,584,970	0.08953	1,484,852	0	1,484,852	0 08953	0 00%
Step 3 - 40,001 to 90,000 Therms per Month	13,129,180	0.06450	846,832	0	846,832	0 06450	0 00%
Step 4 - Over 90,000 Therms per Month	51,760,220	0.02764	1,430,652	0	1,430,652	0 02764	0 00%
Total Volumetric Charges	**104,665,950**		**$6,021,660**	**$0**	**$6,021,660**		**0.00%**
Demand Charges	**219,672**	$8.00000	**$1,757,378**	**$0**	**$1,757,378**		**0.00%**
Total Industrial		0.09090	**$8,428,238**	**$889,347**	**$9,317,585**		**10.55%**
				$889,347	**$9,317,585**		
Other							
Special Contracts			**$434,249**	**$45,822**	**$480,071**	Proprietary	**10.55%**
Sales for Resale							
Customer Charges	31	$0 00	$0	$3,005	$3,005	$96 95	100%
Demand Charges	2,400	8.00000	19,200	0	19,200	8 00000	0%
Volumetric Charges	103,120	0.09000	9 281	0	9 281	0 09000	0%
Total Sales for Resale			**$28,481**	**$3,005**	**$31,486**		**10.55%**
Total Other		0	**$462,730**	**$48,827**	**$511,557**		**10.55%**
				$48,827	**$511,557**		
Miscellaneous Service Revenue							
Forfeited Discounts			$1,564,421	$79,654	1,644,075		5 09%
Bad Check Charges			51,090	0	51,090		0 00%
Reconnect Charges			241,448	0	241,448		0 00%
Other Miscellaneous Items			27,606	0	27,606		0 00%
Total Miscellaneous Service Revenue			**$1,884,565**	**$79,654**	**$1,964,219**		**4.23%**
				$79,654	**$1,964,219**		
Total Base Rate Margin			**$94,603,962**	**$9,863,394**	**$104,467,356**		**10.43%**
				9,863,394	**104,467,356**		

SOURCE CAPD Workpaper R-14 00.