Date Received: February 9, 1993

Docket No.: UG-920840

Company: Washington Natural Gas

Distribution:

Pat Dutton
Mert Lott
Regulatory Affairs
Chairman Nelson
Marilyn Meehan
Commissioner Casad
Commissioner Pardini
Deb Ross
*Ken Elgin
Dixie Linnenbrink
*Jaime Ramirez
*Kath Thomas
*Bob Cedarbaum
*Buzz Simpson
*Jeff Goltz
Lisa Anderl

Washington Natural Gas
A Washington Energy Company

February 9, 1993

Advice No. 483-F488

RECEIVED
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STATE OF WASH.
UTIL. AND TRANSP.
COMMISSION

Mr. Paul Curl
Washington Utilities and Transportation Commission
Chandler Plaza Building
P. O. Box 47250
1300 S Evergreen Park Dr SW
Olympia, WA 98504-7250

Dear Mr. Curl:

Please find enclosed an original and nineteen copies of the Company's responses to Bench Request Nos. 1-3 in UG-920840.

Very truly yours,

Ritchie Campbell

RITCHIE A. CAMPBELL
Director
Rates and Special Studies

Enclosures

CC: Chuck Adams
Paula Pyron
Carol Arnold
Scott Johnson
Mick Larson

WASHINGTON NATURAL GAS COMPANY

February 9, 1993

Docket No. UG-920840

RESPONSE TO
WUTC Bench Request

Bench Requistion Request No.1:

Please provide information regarding what other jurisdictions are doing with the weather normalization adjustment.

Response:

Enclosed is information pertaining to weather normalization adjustments in other jurisdicitons.

This information has been assembled in three sections. Section 1 contains a "Status Report" on weather normalization in various jurisdictions (Financial Analysis, "Weather Normalization: A Status Report," assembled by the American Gas Association, September, 1992.)

The "Status Report" was previously provided to Staff in response to WUTC Data Request No. 18.

Sections 2 and 3 of the enclosed information were provided to staff in response to Record Requisition No. 7 (UG-920840). Section 2 contains the following information:

* Atlanta Gas Light Company
  Weather Normalization Adjustment
  Information Packet:
    WNA Rider (including tariff sheets)
    Sample calculation and reports
    Employee & customer information
    Supporting testimony
    Georgia Public Service Commission order in Docket No. 3855-U

* New Jersey Natural Gas Company
    Weather Normalization Clause Rider D
    State of New Jersey, Board of Regulatory Commissioners order in Docket No. GR91081393J

* Brooklyn Union Gas Company
    State of New York, Public Service Commission
    Order in Case 27631
    Tariff Sheet: Twenty-first Revised Leaf No. 12D

Section 3 of this material contains copies of orders from the following Commissions where weather normalization adjustments have been allowed:

* Alabama Gas Company
    Alabama Public Service Commission
    Docket Nos. 18046 & 18328

WASHINGTON NATURAL GAS COMPANY

February 9, 1993

Docket No. UG-920840

RESPONSE TO
WUTC Bench Request

Response (cont.):

* Consolidated Edison Company of New York
  State of New York
  Public Service Commission Opinion No. 89-34, Case 88-G-229

* National Fuel Gas Distribution Company
  State of New York
  Public Service Commission
  Opinion No. 88-19, Case 29679

* United Cities Gas Company
  Georgia Public Service Commission
  Administrative Order dated October 4, 1990

* Chattanooga Gas Company
  Nashville Gas Company
  United Cities Gas Company
  Tennessee Public Service Commission
  Order in Docket No. 91-01712

* Elizabethtown Gas Company
  State of New Jersey, Board of Regulatory Commissioners
  Order in Docket No. GR90121391J

* Piedmont Natural Gas Company
  State of North Carolina, Utilities Commission
  Order in Docket No. G-9, Sub 309

* North Carolina Natural Gas Corporation
  State of North Carolina, Utilities Commission
  Order in Docket No. G-21, sub 293 & 295

* Public Service Company of North Carolina
  State of North Carolina, Utilities Commission
  Order in Docket No. G-5, Sub 280

* South Carolina Electric & Gas Company
  Public Service Commission of South Carolina
  Order No. 91-971 in Docket No. 91-342-G

The Company has requested other information for your review, but has not yet received it. We will attempt to keep you informed as additional information is received.

Response Prepared By:
Ritchie Campbell 521-5224

American Gas Association

FINANCIAL ANALYSIS

Group
American Gas Association
1515 Wilson Boulevard
Arlington, VA 22209
703-841-8400

For More Information:

Cynthia J. Marple
Associate Director
Rates and Financial Analysis

FA 92-2
September 1992

WEATHER NORMALIZATION: A STATUS REPORT

Weather normalization clauses were first introduced in 1980 by the Brooklyn Union Gas Company. Weather normalization is a rate adjustment mechanism that neutralizes the impact of unusually cold or warm weather on a gas company's revenues and income. Throughout most of the decade, there was only tepid interest in these adjustment clauses, as only two other gas distribution companies followed Brooklyn Union's lead. However, interest in weather normalization clauses revived in 1988 after one of the warmest winters on record. With three successive winters of warmer than normal weather, interest has increased dramatically. This fact sheet is designed to serve as a catalog listing those companies currently having a weather normalization clause in place or those with clauses pending.

Gas rates charged by local distribution companies (LDCs) depend in part upon assumptions of how much gas the LDC is going to sell or transport. This can be a difficult prediction to make, since residential use for space heating - still the bulk of most gas utilities' sales - is highly weather sensitive. Consequently, weather fluctuations may cause the LDC's actual sales to vary significantly from its forecasted sales. These sales variances in turn cause large swings in revenues and earnings. Weather normalization works by utilizing an automatic adjustment factor, which increases or decreases base rates to compensate for deviations in weather. Normal weather is the historic temperature over a period of time, usually thirty years.[1] In addition to protecting the distributor from financial instability, weather normalization also protects customers from wide swings in their monthly bills. Customer bills are adjusted downwards in colder-than-normal months and adjusted upwards during periods of unusually warm weather. Weather normalization is easy to administer, and by decreasing the frequency of fillings, reduces the cost and time involved in rate case proceedings.

[1] In recent times there has been some rethinking on the part of utilities and regulators of the appropriateness of thirty year normals. Many companies now use a shorter time period to set the historic norms.

A rate design tool that provides benefits to both customers and shareholders would appear to be ideal. Why then, the slow acceptance? Acceptance of weather normalization has been slowed by two factors. LDC management feared that regulatory commissions would demand a lower allowed return as an offset to the more stabilized earnings possible with weather normalization. Also, after so many warm winters, management worried that it might miss out on the upside earnings potential when cold weather finally returns. However, the continuing pattern of mild winters has convinced many LDCs and the regulatory bodies overseeing them to give weather normalization a second look. LDC management appreciate the earnings stability generated by weather normalization clauses and, for the most part, regulators have been fair in their treatment of these clauses.

In June 1991, A.G.A. published the results of a survey on weather normalization clauses.[2] The report stated that ten companies in four states and the province of Quebec had a weather adjustment clause. At that time, an additional nine companies had filed for a weather normalization clause. In April 1992, A.G.A. issued a Rate Issues S.O.S. on the subject of weather normalization. Specifically, all A.G.A. member companies were asked whether they had a weather normalization clause filed or in place. Responses to that S.O.S. and subsequent follow-up phone conversations show that twenty-four companies in ten states and Canada have established weather normalization clauses. These states are Alabama, California, Georgia, New Jersey, New York, North Carolina, South Carolina, Tennessee, Texas and Virginia. The weather normalization clause approved for the Department of Public Utilities in Richmond, Virginia was authorized by the city of Richmond and not by the Virginia Corporation Commission. Gaz Metropolitain, one of the early converts to weather normalization, has had a clause in the province of Quebec since 1980.

Two natural gas distributors have approved clauses that go into effect in the coming heating season. These companies are Orange and Rockland Utilities in New York and Piedmont Natural Gas in Tennessee. In addition, eight companies in Arkansas, Indiana, Kansas, Louisiana, Massachusetts, Oklahoma, South Carolina, Virginia and Washington have filed for weather normalization and two companies in Pennsylvania and Rhode Island have been denied weather normalization but will refile. All together, thirty-two companies operating in thirty-nine jurisdictions across nineteen states have filed for or have put weather normalization clauses into effect.

There are two types of weather normalization clauses: after-the-fact sales adjustments made directly to the customer's monthly bill (often called "as-billed" weather normalization clauses), and deferred revenue accounts that capture all or a part of the revenue impact of abnormal weather and the subsequent rate mechanisms to amortize the account balances. The major distinction between a Type 1 and a Type 2 clause is how the revenue impact is allocated to the customer. A Type 1 clause makes a contemporaneous

[2] American Gas Association, "Weather Normalization Clauses," A.G.A. Financial Analysis, FA 91-2, June 1991.

adjustment to the individual customer's bill, either immediately or delayed by a month or two. The calculation may involve restating (normalizing) the sales volumes or restating (normalizing) the rate, but the result is the same: an as-billed debit or credit adjustment. A Type 2 clause aggregates the total revenue deviations due to abnormal weather to a special revenue account. After a reconciliation period (usually 6 months or longer), the sum in the special revenue account is divided by projected sales and a change is made to the rate. Future sales are made at the new weather adjusted rate.

As shown on the following tables, sixteen of the weather normalization clauses in place or scheduled for implementation this heating season are Type 1 clauses and ten are Type 2 clauses. Lone Star Gas Co. has implemented eighty separate weather normalization clauses throughout its Texas service territory and is using both types of clauses. The majority of pending weather normalization rate filings are for the Type 1 clause. Advantages of the Type 1 clause include immediate bill reduction during abnormally cold weather and customer fairness. Rates that are weather normalized using a Type 1 clause are fair to customers because they closely match the cost of providing service to each customer taking service in a billing period. Advantages of the Type 2 clause include stretching the bill payment period due to the amortization of the weather related revenues and increased rate stability from longer amortization periods.

Many companies have weather normalization clauses under consideration. However, weather normalization is not for everyone. For those companies that use a short time period to set the historic norms, weather normalization will not significantly lower the risk associated with abnormally warm weather. Also, weather normalization may be unnecessary for a company that has very little in the way of weather sensitive load. And finally, weather normalization has proved to be a headache for some companies that have instituted a separate line-item charge on customer's bills.

Weather normalization has caught on because it offers natural gas distribution companies earnings stability. Because it is fair and works to the ultimate benefit of customers, it is also catching on with regulators.

COMPANIES WITH WEATHER NORMALIZATION[1]

COMPANY	STATE/PROVINCE	YEAR IN PLACE	TYPE OF CLAUSE
Alabama Gas Corp.	AL	1990	1
Atlanta Gas Light Co.	GA	1989	1
Brooklyn Union Gas Co.	NY	1980	1
Chattanooga Gas Co.	TN	1991	1
City of Richmond, Dept. of Public Utilities	VA	1992	2
Consolidated Edison Co. of New York	NY	1989	1
Elizabethtown Gas Co.	NJ	1991	2
Gaz Metropolitain, Inc.	QB	1980	2
Lone Star Gas Co.	TX	1991	*
Long Island Lighting Co.	NY	1992	1
National Fuel Gas Distribution Co.	NY	1988	1
New Jersey Natural Gas Co.	NJ	1992	2
New York State Electric and Gas Corp.	NY	1992	1
North Carolina Natural Gas Corp.	NC	1991	1
Pacific Gas and Electric Co.	CA	1988	2
Piedmont Natural Gas Co.	NC	1991	1
Public Service Co. of North Carolina, Inc.	NC	1991	1
Rochester Gas and Electric Corp.	NY	1992	1
San Diego Gas and Electric Co.	CA	1985	2
South Carolina Electric and Gas Co.	SC	1991	1
Southern California Gas Co.	CA	1988	2
Southern Union Gas Co.	TX	1991	2
Southwest Gas Corp.	CA	1990	2
United Cities Gas Co.	GA	1990	1
United Cities Gas Co.	TN	1991	1

1 As of September 1, 1992

* Both 1 and 2

WEATHER NORMALIZATION APPROVED [illegible]			
COMPANY	STATE	[illegible]	[illegible]
Orange & Rockland Utilities, Inc.	NY	Jan. /93	1
Piedmont Natural Gas Co.	TN	Dec./92	2

FILED FOR WEATHER NORMALIZATION			
COMPANY	STATE	FILED	TYPE OF CLAUSE
Arkla, Inc.	AR	Feb./92	1
Arkla, Inc.	KS	Mar./92	1
Arkla, Inc.	LA	Dec./91	1
Arkla, Inc.	OK	May/92	1
Bay State Gas Co.	MA	Apr./92	2
Berkshire Gas Co. - (Dismissed without prejudice)	MA	Jan./92	2
Commonwealth Gas Services Inc.	VA	May/92	1
Indiana Gas Co., Inc.	IN	Apr./92	1
Piedmont Natural Gas Co.	SC	May/91	1
Washington Energy Co.	WA	July/92	1
United Cities Gas Co.	KS	May/92	1

DENIED - [illegible] WEATHER NORMALIZATION	
COMPANY	STATE
National Fuel Gas Distribution Co.	PA
Providence Gas Co.	RI

WEATHER NORMALIZATION UNDER CONSIDERATION	
COMPANY	STATE/PROVINCE
BC Gas Inc.	BC
EnergyNorth Natural Gas, Inc.	NH

cc: KRK
JJ Sullivan

ATLANTA GAS LIGHT COMPANY

WEATHER NORMALIZATION ADJUSTMENT (WNA)

INFORMATION PACKET

ATLANTA GAS LIGHT COMPANY
WEATHER NORMALIZATION ADJUSTMENT (WNA)
PACKET OUTLINE

I. WNA Rider
   A. WNA Summary
   B. WNA Rider
   C. WNA Components
   D. Atlanta Gas Light Company General Service Rates
   E. 30 Year Normal - U.S. Weather Service

II. Calculations & Reports
   A. Sample Calculation
   B. Daily Calculation of Factor
   C. Cycle Billing Reports
   D. Monthly Summary to Georgia Public Service Commission

III. Employee & Customer Information
   A. Employee Fact Sheet
   B. Customer Bills
   C. Bill Insert
   D. Customer Pamphlet

IV. Supporting Testimony
   A. Atlanta Gas Light Company Original Filing -
      Charles W. Bass, Sr. Vice-President
      Gov't & Regulatory Affairs
      Atlanta Gas Light Company
   B. Tennessee Original Filing -
      H. Edwin Overcast, Director - Rates
      Atlanta Gas Light Company
      On Behalf of Chattanooga Gas Company, Nashville Gas Company and United Cities Gas Company

I. WNA RIDER

ATLANTA GAS LIGHT COMPANY
WEATHER NORMALIZATION ADJUSTMENT (WNA)
SUMMARY

The Georgia Public Service Commission has the responsibility of setting rates that are fair and reasonable, both to the utility and its customers. In establishing what is fair and reasonable, the Commission determines the amount the utility needs to cover its costs in providing service to its customers during a normal year. The 30 year normal weather, as published by the U.S. Weather Bureau, is used in establishing the proper rate levels.

Since the rate levels are set based upon normal weather, if colder than normal weather occurs, the gas company would have received more than the Commission determined was needed. On the other hand if the actual weather is warmer than normal, the gas company would not have received enough money to cover the cost of providing service.

The purpose of the Weather Normalization Adjustment, then, is to adjust the rate originally set by the Commission to allow for the difference in actual weather and normal weather. In this way, both the customers and the gas company are treated fairly. The rate customers pay goes down if colder than normal weather occurs and increases if warmer than normal weather occurs.

The Weather Normalization Adjustment Rider, effective October 1, 1989, applies to customer bills during the winter heating season, October to May, although a June bill may still show an adjustment for May gas use. During the summer months, the Weather Normalization Adjustment is zero.

Approximately two-thirds of a typical gas bill represents what Atlanta Gas Light Company pays its suppliers for gas. The Weather Normalization Adjustment is not applied to this portion of the bill.

ATLANTA GAS LIGHT COMPANY

RATE ________

TERMS OF SERVICE APPLICABLE TO ALL GENERAL SERVICE RATE SCHEDULES
NATURAL GAS SERVICE

11. WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

I. Provisions for Adjustment

The base rates per therm (100,000 Btu) for gas service set forth in all of the General Service rate schedules of Atlanta Gas Light Company (Company) shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment."

II. Definitions

For purposes of this Rider:

"Commission" means the Georgia Public Service Commission

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

III. Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment shall be computed to the nearest one-hundredth cent per therm by the following formula:

$$WNA_i = R_i \frac{(HSF_i \ (NDD-ADD) \quad)}{(BLi + (HSFi \times ADD))}$$

Where: i = any particular General Service rate schedule or billing classification within any particular General Service rate schedule that contains more than one billing classification

WNA_i = Weather Normalization Adjustment Factor for the i^{th} rate schedule or classification expressed in cents per therm

Effective:
With service on and after
October 1, 1989

ATLANTA GAS LIGHT COMPANY

RATE ________

TERMS OF SERVICE APPLICABLE TO ALL GENERAL SERVICE RATE SCHEDULES
NATURAL GAS SERVICE

III. Computation of Weather Normalization Adjustment (cont'd)

R_i = weighted average base rate of temperature sensitive sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

HSF_i = heat sensitive factor for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

NDD = normal billing cycle heating degree days utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

ADD = actual billing cycle heating degree days

BL_i = base load sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

IV. Filing with Commission

The Company will file as directed by the Commission (a) a copy of each computation of the Weather Normalization Adjustment, (b) a schedule showing the effective date of each such Weather Normalization Adjustment, and (c) a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

ATLANTA GAS LIGHT COMPANY
DOCKET NO. 4011-U

WEATHER NORMALIZATION ADJUSTMENT RIDER COMPONENTS
(Effective February 1, 1992)

RESIDENTIAL

RATE R-1 (REG & A/C)
HSF = 0.190183
BL = 27.308

RATE R-2 (HTG)
HSF = 0.157242
BL = 8.697

SMALL INDUSTRIAL

RATE G-11 (REG & A/C) CYCLES 1-21
HSF = 3.024182
BL = 875.108

RATE G-11 (REG & A/C) CYCLE 22
HSF = 8.881752
BL = 2,999.317

RATE G-12 (HTG) CYCLES 1-21
HSF = 1.910881
BL = 38.843

RATE G-12 (HTG) CYCLE 22
HSF = 7.372258
BL = 1,032.798

RATE G-13 (REG)
HSF = 6.093639
BL = 9,221.543

RATE G-13 (A/C)
HSF = NONE
BL = NONE

SMALL COMMERCIAL

RATE G-10 (REG)
HSF = 0.093410
BL = 26.741

RATE G-10 (A/C)
HSF = 0.053305
BL = 65.430

RATE G-11 (REG & A/C) CYCLES 1-21
HSF = 0.814322
BL = 203.048

RATE G-11 (REG & A/C) CYCLE 22
HSF = 9.739681
BL = 1,348.644

RATE G-12 (HTG) CYCLES 1-21
HSF = 0.396754
BL = 10.128

RATE G-12 (HTG) CYCLE 22
HSF = 12.231962
BL = 502.527

RATE G-13 (REG)
HSF = 4.496427
BL = 4,164.899

RATE G-13 (A/C)
HSF = NONE
BL = NONE

ATLANTA GAS LIGHT COMPANY
DOCKET NO. 4011-U

WEATHER NORMALIZATION ADJUSTMENT RIDER COMPONENTS
R-VALUES
(Effective February 1, 1992)

	RESIDENTIAL		SMALL COMMERCIAL							SMALL INDUSTRIAL				
MONTH	R-1 REG & A/C	R-2 HTG	G-10 REG	G-10 A/C	G-11 REG & A/C CYCLES 1-21	G-11 REG & A/C CYCLE 22	G-12 HTG	G-13 REG	G-13 A/C	G-11 REG & A/C CYCLES 1-21	G-11 REG & A/C CYCLE 22	G-12 HTG	G-13 REG	G-13 A/C
OCT	0.127832	0.141976	0.095921	0.090548	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
NOV	0.127821	0.152092	0.092495	0.090880	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
DEC	0.125952	0.153045	0.089388	0.088981	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
JAN	0.124196	0.169393	0.087984	0.087268	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
FEB	0.124200	0.164315	0.089323	0.088464	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
MAR	0.126047	0.155483	0.091453	0.090332	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
APR	0.127704	0.145533	0.096179	0.091996	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000
MAY	0.127561	0.140668	0.098443	0.091386	0.139000	0.131000	0.213000	0.155000	0.000000	0.131000	0.131000	0.213000	0.155000	0.000000

ATLANTA GAS LIGHT COMPANY
GENERAL SERVICE RATES
EFFECTIVE FEBRUARY 1, 1992

RESIDENTIAL

R-1 (REG & A/C)

CUSTOMER CHG	6.13
BLOCK ENDING	
25	.207
200	.129
BAL	.092
A/C	.076

R-2 (HTG)

CUSTOMER CHG	6.13
BLOCK ENDING	
25	.207
93	.129
BAL	.216

SMALL COMMERCIAL & INDUSTRIAL

G-11 (REG & A/C)

CUSTOMER CHG	8.83
BLOCK ENDING	
100	.178
1000	.139
BAL	.131
A/C	.07

G-12 (HTG)

CUSTOMER CHG	8.83
BLOCK ENDING	
100	.178
172	.139
BAL	.213

G-10 (REG & A/C)

CUSTOMER CHG	4.75
BLOCK ENDING	
1000	.127
10000	.101
BAL	.075
A/C	.027

G-13 (REG & A/C)

BLOCK ENDING	
1000	149.00
SUMMER BASE	.109
BAL	.155
A/C	.064

30 YEAR NORMAL ENDING DECEMBER 31, 1980
(LEAP YEAR - FY 1992)

ATLANTA GAS LIGHT COMPANY
DAILY NORMAL DEGREE DAYS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1	9	17	23	22	17	7	2	0	0	0	0	
2	1	9	18	23	22	17	7	2	1	0	0	0	
3	2	9	18	23	22	16	7	2	1	0	0	0	
4	2	10	18	23	22	16	7	2	1	0	0	0	
5	2	10	18	23	22	16	7	2	0	0	0	0	
6	2	10	19	23	22	16	7	2	1	0	0	0	
7	2	11	19	23	22	15	7	2	1	0	0	0	
8	2	11	19	23	21	15	6	2	0	0	0	0	
9	2	11	19	23	21	15	6	1	0	0	0	0	
10	3	12	20	23	21	14	6	1	0	0	0	0	
11	3	12	20	23	21	14	5	1	0	0	0	0	
12	3	12	20	23	21	14	5	1	0	0	0	0	
13	3	12	20	24	21	13	5	1	0	0	0	0	
14	3	13	20	24	20	13	4	1	0	0	0	0	
15	4	13	21	24	20	13	4	1	0	0	0	0	
16	4	13	21	23	20	13	4	1	0	0	0	0	
17	4	14	21	23	20	12	4	1	0	0	0	0	
18	5	14	21	23	20	12	3	1	0	0	0	0	
19	5	14	21	23	19	12	3	1	0	0	0	0	
20	5	15	21	23	19	12	3	1	0	0	0	0	
21	5	15	22	23	19	12	3	1	0	0	0	0	
22	5	15	22	23	19	12	3	1	0	0	0	0	
23	5	15	22	23	19	11	3	1	0	0	0	0	
24	6	16	22	23	18	11	3	1	0	0	0	1	
25	6	16	22	23	18	11	3	1	0	0	0	1	
26	7	16	22	23	18	10	3	0	0	0	0	1	
27	7	16	22	23	17	10	2	1	0	0	0	1	
28	7	17	22	23	17	10	2	1	0	0	0	1	
29	8	17	23	23	17	10	2	0	0	0	0	1	
30	8	17	23	23		9	2	1	0	0	0	1	
31	8		23	23		9		1		0	0		
	130	394	636	716	580	400	133	37	5	0	0	7	3038

II. CALCULATIONS & REPORTS

ATLANTA GAS LIGHT COMPANY
SAMPLE IMPACT OF WNA ON TYPICAL RESIDENTIAL CUSTOMER

Assume: Meter reading date of November 13, 1991.

ADD = 282 NDD = 237

$$\text{WNA} = .125183 \frac{(\ .204568\ (\ 237 - 282)\ )}{(26.965 + (.204568 \text{ X } 282)}$$

$$= \frac{-1.152380}{84.6532}$$

$$= -\$.013613/\text{therm}$$

Actual average use per customer for this time period was 76 therms.

76 therms X -$.013613 = $1.03

This factor reduces the average bill for the month by $1.03.

Assume: Meter reading date of February 11, 1992.

ADD = 578 NDD = 654

$$\text{WNA} = .120563 \frac{(\ .204568\ (\ 654 - 578)\ )}{(26.965 + (.204568 \text{ X } 578)}$$

$$= \frac{1.874413}{145.205304}$$

$$= \$.012909/\text{therm}$$

Actual average use per customer for this time period was 146 therms.

146 therms X $.012609 = $1.84

This factor increases the average bill for the month by $1.84.

MARCH	ADD=	391	NDD-ADD=	239
	NDD=	630	TTL DAYS=	32

METER READING DATE 03-03-92
CYCLE NUMBER 02
=================

RATE	CLS	HSF	BL	R-VALUE	HSF*ADD	NUM	DEN	WNA FACTOR (cents/ therm)
R-1 REG		0.190183	27.308	0.126047	74.361553	45.453737	101.669553	5.6352
R-1 A/C		0.190183	27.308	0.126047	74.361553	45.453737	101.669553	5.6352
R-2 HTG		0.157242	8.697	0.155483	61.481622	37.580838	70.178622	8.3261
G-10 REG	COM	0.093410	26.741	0.091453	36.52331	22.32499	63.26431	3.2272
G-10 A/C	COM	0.053305	65.430	0.090332	20.842255	12.739895	86.272255	1.3339
G-11 REG	COM	0.814322	203.048	0.139000	318.399902	194.622958	521.447902	5.1879
G-11 A/C	COM	0.814322	203.048	0.139000	318.399902	194.622958	521.447902	5.1879
G-11 REG	IND	3.024182	875.108	0.131000	1182.455162	722.779498	2057.563162	4.6017
G-11 A/C	IND	3.024182	875.108	0.131000	1182.455162	722.779498	2057.563162	4.6017
G-12 HTG	COM	0.396754	10.128	0.213000	155.130814	94.824206	165.258814	12.2217
G-12 HTG	IND	1.910881	88.843	0.213000	747.154471	456.700559	835.997471	11.6360
G-13 REG	COM	4.496427	4164.899	0.155000	1758.102957	1074.646053	5923.001957	2.8122
G-13 REG	IND	6.093639	9221.543	0.155000	2382.612849	1456.379721	11604.15585	1.9453

$$\text{R VALUE} * \frac{\text{HSF (NDD-ADD)}}{\text{BL + (HSF * ADD)}}$$

WEATHER NORMALIZATION ADJUSTMENTS

CYCLE 19

	THERMS	FACTOR	AMOUNT	CUSTOMERS
R-1 REG	4,888,017.4	0.047520	256,591.94	43,079
R-1 AIR COND	8,603.8	0.047520	451.56	58
R-2 HEAT ONLY	386,350.2	0.074968	32,793.04	4,550
G-11 COMM REG	1,080,159.0	0.046328	53,881.96	1,764
G-11 COMM AIR COND	2,434.7	0.052130	127.58	6
G-12 COMM HEAT ONLY	404,439.7	0.105931	47,621.58	1,886
G-11 IND REG	93,003.7	0.042087	4,175.10	30
G-12 IND HEAT ONLY	42,242.9	0.114411	4,462.89	32
R-1 REG (SR CIT)	84,064.2	0.047520	4,371.47	834
R-1 AIR COND (SR CIT)	179.0	0.047520	8.51	1
R-2 HEAT ONLY (SR CIT)	17,088.2	0.087536	1,459.55	231
GRAND TOTAL	7,006,582.8		405,945.18	52,471

ATLANTA GAS LIGHT COMPANY
WEATHER NORMALIZATION ADJUSTMENT BY CYCLE
JANUARY 1992

	RESIDENTIAL			SMALL COMMERCIAL			SMALL INDUSTRIAL			GENERAL SERVICE			ACTUAL DEGREE DAYS	NORMAL DEGREE DAYS	DAYS IN PERIOD
CYCLES	THERMS	AMOUNT	CUST	THERMS	AMOUNT	CUST	THERMS	AMOUNT	CUST	THERMS	AMOUNT	CUST			
1	5,715,724.0	108,406.46	47,816	2,345,272.1	60,525.88	5,857	94,916.2	2,026.50	74	8,155,912.3	170,958.84	53,747	531	629	30
2	6,774,801.5	148,561.34	59,711	2,332,811.4	66,652.77	5,743	141,667.1	3,634.33	84	9,249,280.0	218,848.44	65,538	519	634	30
3	6,108,041.3	153,144.75	50,843	1,288,145.5	39,803.02	3,405	58,617.3	1,820.68	33	7,454,804.1	194,768.45	54,281	505	639	30
4	6,176,216.7	175,750.04	50,755	1,622,481.2	57,160.31	4,296	61,107.2	1,664.52	36	7,859,805.1	234,574.87	55,087	517	666	31
5	6,116,254.5	158,296.31	52,277	2,088,568.3	70,174.73	5,040	123,956.4	3,632.55	72	8,328,779.2	232,103.59	57,389	506	632	29
6	6,774,547.9	165,307.51	56,395	1,733,902.2	57,128.71	4,504	106,161.4	3,279.48	58	8,614,611.5	225,715.70	60,957	513	635	29
7	7,689,165.3	183,758.14	63,314	1,776,325.6	54,133.07	4,391	112,410.7	2,730.28	52	9,577,901.6	240,621.49	67,757	515	638	29
8	5,696,998.2	127,892.50	50,171	1,561,023.3	44,079.65	3,760	99,412.9	2,661.99	54	7,357,434.4	174,634.14	53,985	528	641	29
9	7,348,570.2	152,988.16	56,289	2,085,171.5	54,049.42	4,287	169,555.8	3,873.87	87	9,603,297.5	210,911.45	60,663	579	691	31
10	5,938,494.6	118,314.18	43,391	1,286,400.8	31,471.54	3,191	40,490.8	843.03	33	7,265,386.2	150,628.75	46,615	585	695	31
11	9,444,931.3	191,881.14	63,419	2,166,875.9	55,944.44	4,685	172,902.0	3,902.41	81	11,784,709.2	251,727.99	68,185	565	677	30
12	6,170,847.6	114,448.95	49,202	1,983,630.2	43,135.72	3,793	88,491.7	1,783.66	50	8,242,969.5	159,368.33	53,045	583	679	30
13	7,388,160.0	121,607.47	53,671	1,647,122.9	34,062.28	3,815	51,909.8	1,345.20	48	9,087,192.7	157,014.95	57,534	590	681	30
14	8,751,822.6	142,928.84	61,040	1,299,960.3	27,117.15	3,182	130,779.1	2,777.28	52	10,182,562.0	172,823.27	64,274	589	683	30
15	7,524,939.4	109,351.28	49,968	2,009,196.7	36,717.50	3,956	161,513.3	2,600.71	81	9,695,649.4	148,669.49	54,005	641	731	32
16	8,378,039.7	103,467.00	57,239	1,761,728.6	26,036.42	3,707	96,456.6	1,577.87	55	10,236,224.9	131,081.29	61,001	625	688	30
17	7,814,255.1	92,182.86	51,445	1,319,148.4	20,039.16	2,817	47,308.1	737.89	30	9,180,711.6	112,959.91	54,292	577	645	28
18	7,996,097.2	87,463.27	56,153	1,779,437.5	25,129.82	3,651	186,993.2	2,763.61	66	9,962,527.9	115,356.70	59,870	586	646	28
19	7,474,240.7	86,562.09	50,284	2,011,947.6	30,222.88	3,762	160,444.2	2,211.21	62	9,646,632.5	118,996.18	54,108	622	693	30
20	7,257,639.3	85,938.21	46,047	1,083,095.1	16,066.84	2,501	41,192.9	500.71	13	8,381,927.3	102,505.76	48,561	600	670	29
21	6,238,303.0	84,075.83	46,821	2,165,723.5	39,512.00	4,230	90,968.0	1,343.24	36	8,494,994.5	124,931.07	51,087	591	670	29
22	0.0	0.00	0	14,577,690.6	154,732.63	1,896	5,139,554.9	38,486.90	456	19,717,245.5	193,219.53	2,352	558	647	28
TOTAL	148,778,090.1	2,712,326.33	1,116,251	51,925,659.2	1,043,895.94	86,469	7,376,809.6	86,197.92	1,613	208,080,558.9	3,842,420.19	1,204,333			

III. EMPLOYEE & CUSTOMER INFORMATION

Consumer Information FACT SHEET For Employees

Weather Normalization Adjustment No. 31

1. **What is the Weather Normalization Adjustment (WNA) Rider?** The WNA Rider is a mechanism to adjust the base rate portion of a customer's bill to reflect normal weather conditions. The base rate portion of a bill will be increased when weather for the billing cycle is warmer than normal and decreased when weather is colder than normal.

2. **Why do we need WNA?** Our sales are extremely weather sensitive -- meaning that both the Company and our customers can be adversely affected by extremes in the weather. When the weather is warmer than normal, as in January 1989, our revenues are lower than the amount the Georgia Public Service Commission (GPSC) has determined we need to meet our expenses. On the other hand, if the weather is colder than normal, bills to our customers will be higher -- a lot higher if the weather is extremely cold.

3. **How does WNA work?** A formula, approved by the GPSC, is used to calculate a weather adjustment factor for each rate schedule. It's shown on the bill in the calculation box as cents per therm. This factor is then applied to the billed therms as a credit if the weather is colder than normal, or as a debit if the weather is warmer than normal. A CICS screen displays all weather normalization factors, including factors for prorated bill calculation.

4. **How much will bills be affected?** Not very much. First, WNA affects only the base rate portion of the bill. The larger portion of the bill represented by the Purchased Gas Adjustment (PGA) will not be affected at all by the WNA. As an example, we can refer to January 1989, which was unusually warm. If the WNA Rider had been in effect then, it would have increased the average base rate portion of a residential bill a little less than \$5. However, because the weather was so warm and consequently less gas was consumed, the average customer's total bill (even with the extra \$5 figured in) would have been about \$12 less than during a normal January.

5. **How will WNA affect the PGA?** It won't. WNA will only apply to our base rates, not to the PGA. Thus, if purchased gas costs decrease as they have done in the last few years, customers will benefit from lower overall bills. However, if purchased gas costs rise, customers will pay more.

6. **Will the customer know how much the WNA is each month?** Yes. Each billing cycle will have its own WNA amount based on the weather for that cycle. This amount will appear in the calculation box at the bottom of the bill.

10/89

A PUBLICATION OF THE CONSUMER INFORMATION AND EDUCATION DEPARTMENT

ATLANTA GAS LIGHT COMPANY

CUSTOMER BILLS

Below is a sample calculation as shown on a customer's bill. Note that the WNA is a separate line item on the bill.

Bill Computation for 58.4 therms

Customer Charge		=	$	6.13
First	25.0 therms x 20.7¢	=		5.18
Next	33.4 therms x 12.9¢	=		4.31
Purchased Gas Cost	58.4 therms x 37.90¢	=		22.13
T.O.P. Gas Cost	58.4 therms x .67¢	=		.39
Weather Norm Adj	58.4 therms x 1.7589¢	=		1.03
	Subtotal	=		39.17
Franchise Recovery Cost	$39.17 x .0122	=		.48
	Current Gas	=	$	39.65
	5% Sales Tax	=		1.98
	Current Amount	=	$	41.63

The following WNA statement appears on the back of a customer's bill:

W.N.A. - Weather Normalization Adjustment is applied to your bill to adjust the base rate to reflect normal weather conditions. The adjustment will decrease your bill when weather is colder than normal. It will increase your bill when weather is warmer than normal.

ATLANTA GAS LIGHT COMPANY

CUSTOMER BILL INSERT ABOUT WEATHER NORMALIZATION

Important News About Your Gas Bill

On October 1, 1989, a rate increase approved by the Georgia Public Service Commission (PSC) went into effect. When applied to an average monthly gas bill of 80 therms, the increase is $1.13 or about 2.4 percent. Of course, your actual bill will depend on such things as the weather, the efficiency of your gas equipment and your conservation practices.

Also approved by the PSC is a Weather Normalization Adjustment to moderate the effect of weather on our base rates. If the weather is colder or warmer than normal, the base rate portion of your bill will be adjusted to reflect normal weather conditions. This benefits you and our company. For you, it lowers bills when weather is colder than normal and so reduces high winter bills. Likewise, when weather is warmer than normal, it raises bills so we can get the revenue needed to cover our costs and meet our goal of providing reliable gas service at reasonable prices. This adjustment will be shown in the calculation box at the bottom of your bill. The purchased gas adjustment — which makes up about 67 percent of the bill — will not be affected.

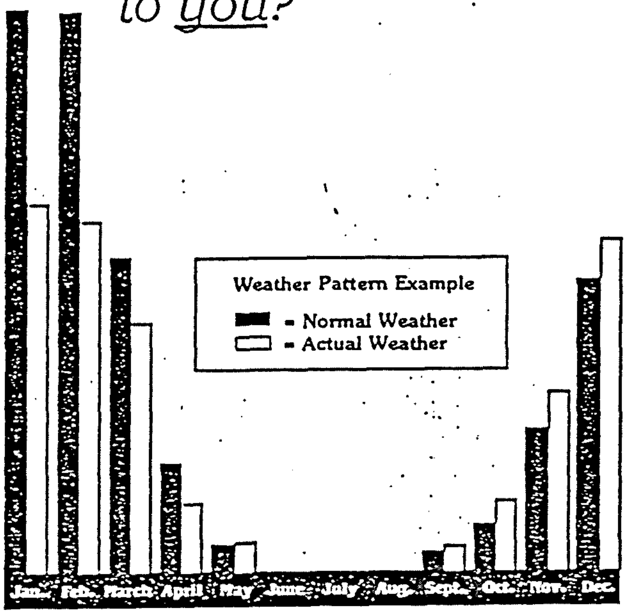
Finally, our charge for returned checks is increased from $10 to $20. This charge will be made when a check or bank draft is returned to us because of insufficient funds, closed account, unauthorized signature or the bank is unable to locate the account.

If you have any questions about this information, please call us at the telephone number printed on your bill. We'll be glad to help you.

Atlanta Gas Light Company

Weather Normalization

What does it mean to you?



P3

Your gas bill includes a weather normalization adjustment (WNA) to moderate the effects of weather on the base rate portion of the bill.

Here are answers to some of the most commonly asked questions about WNA.

What is weather normalization?

The weather normalization adjustment (WNA) is part of the bill calculation. It affects your bill during the winter heating season — usually October through May.

Because weather patterns vary, weather may be colder or warmer than normal during the winter. Weather normalization adjusts a customer's base rate to normal weather conditions for the billing period. This adjustment is needed because the base rate is set on the assumption that weather will be normal.

In simple terms, weather normalization adjusts your bill down when the weather is colder than normal, or up when the weather is warmer than normal.

What is meant by normal weather?

It's important to understand what we mean by normal. Normal can really be defined as average; in this case, the official 30-year average as published by the National Weather Service. We compare the temperatures during a billing period with the 30-year average temperature for that billing period. The WNA simply adjusts a portion of your bill for the difference between actual weather and normal weather.

How does weather normalization work?

For each month's billing period (the time between your last and present meter reading) WNA adjusts the rate to reflect normal weather. This adjustment is shown in the calculation box at the lower left corner of your gas bill. When the weather has been colder than normal, the WNA will decrease your total bill. But when weather has been warmer than normal, the WNA will increase your bill.

Remember that the WNA only changes the base rate portion of your bill. So if you use more gas when the weather is colder than normal, your total bill will increase because you use more gas. If weather is warmer, your bill will be lower because you do not use as much gas and that means a lower total cost for gas service.

Does this mean my gas bill will go up in the summer?

WNA applies only to the heating season (October to May), although your June bill may still show an adjustment for May gas use. During the summer months, WNA will be zero.

Will I know how much the WNA is each month?

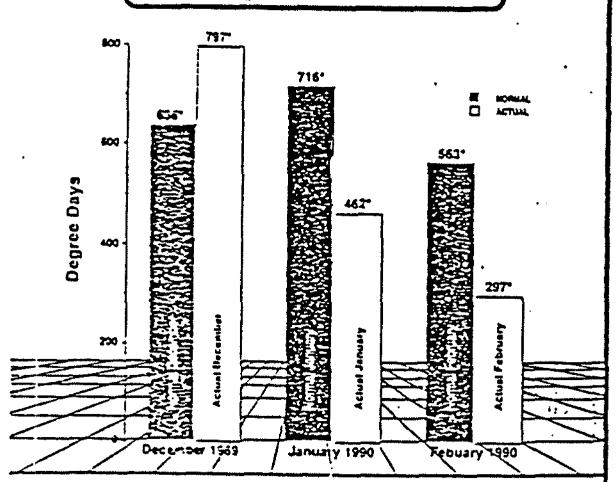
Yes. Each billing period will have its own WNA amount, based on the weather for that period. This amount will appear in the calculation box at the bottom of the bill.

Why is WNA needed?

WNA benefits you and our company. For you, it lowers bills when weather is colder than normal, reducing higher winter bills. Likewise, when weather is warmer than normal, it raises rates just enough to produce the necessary revenue to cover our fixed cost of service and help us meet our goal of providing reliable gas service to you.

P4

Adjusting Gas Bills for Weather



The winter of 1990 illustrates how WNA works. Weather in December was colder than normal, so customers' bills were lowered by WNA.

However, weather in January and February was much warmer than normal, so WNA increased bills.

Normal weather is based on 30-year data from the National Weather Service.

*Cold weather is measured by degree days. To figure a degree day, take the average temperature for a day's high and low, and subtract the average from 65 degrees -- the temperature when you usually need to turn on the furnace. By totaling degree days, for the month you can compare cold weather from month to month, as shown above.

Atlanta Gas Light Company

IV. SUPPORTING TESTIMONY

The following prepared testimony by Charles W. Bass is part of Atlanta Gas Light Company's original request to the Georgia Public Commission for the Weather Normalization Adjustment Rider:

Q. Why is the Company proposing the Weather Normalization Adjustment Rider?

A. Since a substantial portion of the sales by a natural gas distribution company are temperature sensitive, fluctuations in weather from the level defined as "normal" in the ratemaking process cause significant instability in the Company's revenues. The basis for determining rate levels is an estimate of normal weather which, irrespective of the normalization methodology utilized, seldom occurs when the new rates are in effect. The Company underrecovers costs found to be just and reasonable when weather is warmer than normal. Conversely, when weather is colder than normal, ratepayers must pay bills that are higher than anticipated. The Rider would insulate both the Company and its ratepayers from the adverse economic impact of variations in the weather. In addition, the adoption of the Rider would eliminate weather normalization methodology as a contested issue in rate proceedings.

Q. Has there been any recent analysis of the financial impact of fluctuations in the weather upon the Company?

A. Yes. The results of that analysis are summarized in a report entitled "Report to the Georgia Public Service Commission on Development of a Regulatory Monitoring System - Case Study of the Atlanta Gas Light Company," prepared by Edwards & Associates in February of this year. This report concludes that the Company has a sales base which is "exceptionally sensitive to weather." The report contains exhibits that demonstrate that weather could create a swing in the Company's return on equity of over seven percentage points, and on rate base of almost four points. The potential for such dramatic swings limits the Company's planning flexibility. Further, this volatility causes uneasiness in the financial markets and can result in meaningfully higher financing costs to the Company.

Q. How would the Rider eliminate weather normalization as a contested issue in rate cases as well as the financial impact of weather volatility?

A. The Rider would operate to raise or lower base rates to reflect departures from normal weather. Bills would be increased when weather is warmer than normal and decreased when weather is colder than normal. The effect of this mechanism is to raise the bills when the customer can best absorb the adjustment because warm weather has resulted in reduced consumption. On the other hand, the Rider operates to lower bills during extremely cold periods when consumption is high.

Q. Please continue.

A. It is important to note that this adjustment only impacts base rate levels. A customer's total bill, including PGA, will still be lower during warmer than normal periods than it would be during normal weather. In other words, the benefit of reductions in consumption during warmer than normal weather is not lost because the PGA portion of the bill is not affected by the Rider. With the Rider, the Company would receive approximately the level of revenues from temperature sensitive sales projected in the rate case. Weather normalization of annual degree days ceases to be an issue in the rate proceeding because the Rider operates to bring the Company to the position it would have achieved if the normal degree days and the weather adjustment factors assumed by the Commission in setting the rates had actually occurred.

Q. Have you filed a Weather Normalization Adjustment Rider?

A. Yes. The Rider is reflected on Sheets 8A.1 and 8A.2.

Q. Please describe how the Rider works.

A. The Rider produces a weather adjustment factor, expressed in cents per therm for each rate schedule. This factor is then applied to the billed therms as a credit or a debit to produce a level of base rate revenues which approximate those authorized under normal weather conditions.

Q. Please describe how the adjustment factor is calculated.

A. The weather adjustment factor is calculated by multiplying the weighted average base rate for temperature sensitive sales (denoted by R_i in the formula) by the heat sensitive factor (HSF_i, as determined in the weather normalization procedure) by the deviation from normal weather, all divided by expected actual consumption. The factor would be determined for each rate and billing cycle based solely on the actual heating degree days in the billing period, compared to the normal heating degree days for the period. All of the other factors in the Rider would be fixed at the time rates are approved.

Q. Have you calculated the present factors which would be utilized in the operation of the Rider?

A. Yes. The factors are displayed on Schedule 29, Pages 1 and 2 of Exhibit No. ______(CWB-1).

Q. Have you prepared an example to illustrate the impact of the proposed Rider on a typical customer?

A. Yes, Schedule 30 of Exhibit No. _____(CWB-1) is a cal- culation pursuant to the formula set forth in the Rider of the adjustment which would be produced for a typical residential customer by the Rider using October and January of the test year as sample months.

Q. Do these examples provide an indication of the magnitude of possible adjustments under the Rider?

A. Yes. In the case of January, the weather was extremely warm. Our records indicate that it was one of the warmest Januarys on record. Even under those circumstances, the calculation set forth on Schedule 30 of my exhibit shows that the adjustment to a typical residential bill would have been approximately $5.15 for the month. The example for October, a month which was moderately colder than normal, indicates that a typical residential customer would have received a credit of approxi- mately $.55. In sum, the effect of the Rider on a typical customer would not be dramatic.

Q. Does this conclude your testimony?

A. Yes.

PREPARED DIRECT TESTIMONY

OF H. EDWIN OVERCAST

Q. Please state your name and business address.

A. H. Edwin Overcast, 235 Peachtree Street, Atlanta, Georgia.

Q. By whom and in what capacity are you employed?

A. I am employed by Atlanta Gas Light Company (Atlanta), parent Company of Chattanooga Gas Company, as Director of Rates.

Q. What are your principle responsibilities in that position?

A. I am responsible for the design and administration of the tariffs of Atlanta, cost analyses and forecast of gas demand. I also assist Chattanooga in rate and regulatory matters as needed.

Q. Have you provided an outline of your educational background and professional experience?

A. Yes. Appendix A to this testimony contains that information.

Q. On whose behalf are you providing testimony in this proceeding?

A. I am providing testimony on behalf of Chattanooga Gas Company, Nashville Gas Company and United Cities Gas Company (the Tennessee Companies).

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe the proposed Weather Normalization Adjustment (WNA) Rider and to discuss its development and application. I will explain the

Companies' rationale for the proposed adoption of the WNA Rider as well as discussing each element of that Rider.

Q. Why are the Tennessee Companies proposing a generic WNA rider?

A. During the rate case process, both costs and revenues are normalized for a test year. The normalized test year is designed to be the most reasonable estimate of the operating conditions expected to occur during the year rates are to be applied. The process of normalizing revenues consists of either increasing or decreasing weather related sales volumes by the difference between normal heating degree days and actual heating degree days occurring during the test period. The heating degree day is a measure of the difference between average daily temperature and a 65 degree Fahrenheit base.

Normalized sales are used to calculate the per unit rates for gas service. In most cases, and for most rate schedules, these per unit rates are designed to recover significant fixed costs. These costs do not change with changes in weather. To the extent that weather is "normal" - matching the weather used to normalize sales - during the period rates are in effect, a company has a reasonable opportunity to recover the fixed costs of service. Unfortunately "normal" weather seldom, if ever, occurs thus the Company's earnings and its actual return can vary widely from the return allowed by the Commission.

Nearly all of the non-gas costs included in the rates of the Tennessee Companies represent these fixed costs. The proposed WNA Rider would partially insulate both the Tennessee Companies and their ratepayers from the adverse economic impact of variations in weather. In addition, approval of the WNA Rider would eliminate weather normalization methodology as a contested issue in rate proceedings. Properly designed, the WNA Rider permits the Tennessee Companies to adjust the non-gas cost portion of base rates by the amount required to recover the costs approved by the Commission and no more. In this way, customers pay only for those costs approved by the Commission.

Q. Please describe how the WNA Rider works.

A. The WNA Rider is used to calculate a weather adjustment factor, expressed in cents per therm, for each affected rate schedule. This factor is then applied to the billed therms/ccf as a credit or a debit to produce a rate level that recovers approximately the costs authorized under normal weather conditions.

Q. Please describe the formula used to develop the weather normalization factors for a company.

A. The formula used to develop the WNA factors is given by the following equation:

$$WNA_i = \frac{R_i \times (HSF_i \times (NDD - ADD))}{BL_i + (HSF_i \times ADD)}$$

expected actual consumption

Where:

The subscript i denotes the rate schedule or subpart thereof to which the factor is applicable.

WNA_i is the weather normalization adjustment factor expressed in cents per therm/ccf or mcf as appropriate for the i^{th} schedule.

R_i is the weather sensitive base rate for the i^{th} schedule.

HSF_i is the heat sensitive factor for the i^{th} rate schedule utilized in normalizing test year sales.

BL_i is the base load for the i^{th} schedule used in determining normalized test year sales.

NDD is the normal heating degree days for the company.

ADD is the actual heating degree days for the company.

Q. Please explain the calculation of the Weather Normalization Adjustment Factor.

A. The Weather Normalization Adjustment Factor is calculated by multiplying the weighted average non-gas cost base rate for temperature sensitive sales (denoted by R in the formula) times the heat sensitive factor (HSF), as determined in the weather normalization procedure, and times the deviation from normal weather all divided by the expected actual consumption. Put another way the formula computes the ~~marginal~~ change in fixed cost revenue associated with abnormal weather and spreads that revenue over actual sales. The factor for each rate or subpart and billing cycle is based solely on the actual heating degree days in each individual billing period, compared to the normal heating degree days for the period. All of the other values in the formula would be fixed at the time the Commission approved the WNA Rider for each company. Those factors would remain in effect until a subsequent rate case filing altered any of the approved factors.

Q. How is the R value calculated?

A. The R value - an average price per therm/ccf for heat sensitive gas usage - is calculated for each rate schedule or sub-part of a schedule by computing the non-gas cost margin in the heat sensitive portion of the rate schedule. Heat sensitive gas sales are those sales in excess of the heating season baseload gas consumption. In the event a company has a flat commodity rate, such as United Cities, the R value is the commodity rate less gas cost.

Q. How are the heat sensitive factor and baseload terms calculated?

A. Both the heat sensitive factor (HSF) and baseload (BL) are calculated from the regression analysis used to normalize sales for the rate case. To normalize sales we estimate the relationship between usage (measured in therms or ccf) and heating degree days. The general form of the equation is that usage or sales is a function of heating degree days. Sales is the dependent variable and weather is the independent variable in the equation. The base load term represents the intercept or the amount of consumption unrelated to heating degree days. The heat sensitive factor is the coefficient of heating degree days in the estimated equation. The heat sensitive factor may be thought of as the change in sales occurring for a one degree change in heating degree days.

Q. What is the source of normal and actual degree days used in the formula?

A. One source of normal degree days is the National Oceanic and Atmospheric Administration's report on the climatography of the United States No. 84 entitled Daily Normals of Temperature, Heating and Cooling Degree Days and Precipitation 1951-80. However, this is not the only source of daily normal degree days. All that is required is that the normal degree days used to develop the WNA be consistent with those used in weather normalizing data for rate case purposes. Normal degree days may be defined on the basis of a period of 10, 20 or 30 years. The normal may be based on a moving average or for a fixed period. Whatever the daily normal degree base chosen for rate case purposes, the schedule of normal degree days will be fixed as part of approval of a WNA Rider. The actual degree days in the formula are taken from a source consistent with the determination of normal degree days and match the days in any particular billing cycle.

Q. Please explain the process used to calculate a WNA for a particular cycle.

A. The heat sensitive rate, heat sensitive factor, base load and normal degree days for purposes of calculating the WNA factor have all been determined at the time of approval of a WNA mechanism. The only variable that changes by cycle is the actual heating degree days. When actual degree days are greater than normal degree days, the WNA Rider results in a per therm credit applicable to customers' bills. When actual degree days are less than normal degree days the WNA factor results in an addition to customers' bills.

Q. In which months would the WNA Rider be applied?

A. The WNA is applied for the billing months of October through May. In the months of June through September the R value is set at zero and no WNA calculation is applied.

Q. Have you prepared a sample calculation of the Weather Normalization Adjustment factors for a rate schedule?

A. Yes. Schedule 1 of Exhibit No. ___ (HEO-1) illustrates the calculation of the WNA factors for a general service rate schedule serving both small commercial and small industrial customers. For this example, I have assumed that commercial and industrial sales are weather normalized separately. In the event that a general service rate schedule is weather normalized in pieces, a separate weather normalization adjustment for each class of customer - commercial or industrial - is calculated. The examples include calculations where weather is both warmer and colder than normal.

In order to calculate the WNA factor for a sub-part of the rate schedule the heat sensitive rate (R) must be determined. In this example the base load use of small commercial customers is nearly as large as the entire first block of the rate. Hence for any monthly level of heating degree days incremental use would fall in the second block of this hypothetical rate. Further, unless actual heating degree days exceeded 1500 heating degree days for a billing month, on average, no consumption would be expected to occur in the tail block of the rate. Thus, it is reasonable to assume that the R value should be computed for commercial customers based on the second block of the rate. Since the R value is the non-gas cost margin contained in the rate, it is calculated by deducting average gas cost of 35 cents per therm from the 50 cent per therm rate resulting in a 15 cent R value for commercial customers.

For small industrial customers, their average base load use exceeds 1,000 therms and, therefore, their heat sensitive rate is the tail block of our hypothetical rate. From the tail block, using the same procedure as with the commercial customers, we can calculate the R value of 10 cents. For a flat commodity rate (such as Nashville Gas and United Cities rates) the calculation is even more straightforward. The R-value is the rate minus gas costs.

Q. Must the R value always be equal to the price in a single block less gas cost?

A. No. In fact, for some rate schedules the R value may vary by month based on the proportion of sales made in each block. For example, if the small industrial customers in our hypothetical calculation had a base load use of 500 therms, the expected R value would be a weighted average of the margin in the second and third blocks of the rate. Given the expectation that heating degree days in the spring and fall would cause the effective marginal rate to be higher than in the winter months, a separate R value could be calculated from a normalized bill frequency for each month of the entire heating season.

Q. Have you prepared sample calculations to demonstrate the impact of the WNA Rider on customers' bills?

A. Yes. Schedule 2 of my Exhibit No. ___ (HEO-1) uses the data from Schedule 1 and calculates the impact on customers' bills with and without the WNA and also shows the expected bill under normal weather conditions. During colder than normal periods the WNA moderates high bill impacts.

When weather is warmer than normal the WNA results in bills that are higher than without the WNA but still lower than the expected bill under normal weather conditions. Thus, customers still see substantial savings associated with warm weather but do not see as large an increase under colder than normal weather.

This result occurs because the adjustment impacts only the non-gas cost portion of the rate. For most companies the gas cost portion of the bill represents about two-thirds of the total cost of service. The WNA does not affect the gas cost portion of the customer's bill.

Q. How does the WNA Rider impact residential customers?

A. The impact on residential customers is like the impact on the general service customers noted above. During the winter when colder than normal weather causes significant increases in usage and gas bills, the WNA credits customers' bills, thus moderating the impact on customers. When the weather is unusually warm, the WNA increases customers' bills, however, bills still remain below the levels that customers would experience if weather was normal.

Q. Has Atlanta had a similar weather adjustment clause approved by the Georgia Public Service Commission?

A. Yes. Beginning on October 1, 1989, Atlanta placed into effect a WNA clause identical to that proposed by the Tennessee Companies. That clause has now been in operation for an entire heating season and a portion of the current season.

Q. Has the WNA Clause performed as described in your sample calculations?

A. Yes. During the winter of 1989-90 the Weather Normalization Adjustment factors for rate schedules have reduced customers' bills when weather was colder than normal as in December 1989; raised customers' bills when weather was warmer than normal as in January and February 1990; and even for several cycles has produced a zero adjustment to customers' bills when actual degree days exactly equaled normal degree days.

Q. Has the Georgia Public Service Commission had an opportunity to review the operation of Atlanta's Weather Normalization Adjustment Clause?

A. Yes. The Staff of the Georgia Public Service Commission reviewed the operation of the Weather Normalization Adjustment Clause for the winter of 1989-90 in the rate case filed by Atlanta in March 1990.

Q. What was the outcome of that review?

A. The Commission Staff concluded that Atlanta's WNA Clause had worked properly and that it should be continued. Shortly thereafter, the Commission Staff and United Cities reached an agreement to implement a WNA for their Georgia properties serving Columbus and Gainesville. United Cities' WNA was effective for service after November 1, 1990 and is to be effective for billing months of October through May in all subsequent years.

Q. What criteria did the Georgia Commission Staff use to review the operation of Atlanta's WNA?

A. The Commission Staff used the following five criteria:

"1. Effectiveness: Does the WNA rider actually serve to adjust rates in such a manner to ensure that a reasonable amount of revenue is collected?

2. Efficiency: Is the implementation of the rider administratively reasonable?

3. Equity: If, in total, customers are paying reasonable rates, are individual customers being unfairly advantaged or disadvantaged as a result of the rider?

4. Public Acceptance: Have customers and the financial community accepted the rider, or has it lead to an inordinate number of concerns, complaints, and questions?

5. Audit: Is the WNA procedure open to audit by the Staff, and is the procedure designed so that the Staff can be assured that the Company is not using the rider to overcharge the Customers?"

With minor modifications, reflected in this filing, the Staff found that the WNA met these criteria.

Q. What modifications have been reflected in this filing?

A. The Tennessee Companies propose to file standard monthly reports with the Commission for purposes of an ongoing audit. Schedule 3 of Exhibit No. ____ (HEO-1) is a sample of the proposed monthly reports to be filed with the Commission.

Q. Please describe the information contained in Schedule 3 of Exhibit No. ____ (HEO-1).

A. Page one of Schedule 3 consists of a summary of sales, revenue and customers by cycle for each customer class as well as actual and normal degree days and the number of days in a normal cycle. This sample report is produced from the billing records of Atlanta and represents all normal bills rendered by the Company. To the extent customer turn-ons and turn-offs or other unusual circumstances result in hand bills, these accounts are not included in this report. However, the report represents about 99% of all bills rendered in a given month.

The second page contains a sample of the detail by schedule for each cycle including a WNA factor for the cycle. The revenues reported are the actual total revenues for each cycle and include bills read off-cycle so long as the bill is a normal bill. Since this page is a sample, the totals on page one of Schedule 3 are not contained on page two.

Q. Has the Georgia Consumers' Utility Counsel (CUC) supported the Weather Normalization Adjustment Rider?

A. Yes. Both initially in the settlement of the 1989 rate case and in the recently completed 1990 rate case, the CUC has supported approval and continuation of the Atlanta rider.

Q. Does this complete your testimony?

A. Yes.

EXAMPLE OF WNA CALCULATIONS

Assumptions:

General Service Rate Schedule - both small commercial and industrial customers served on schedule.

Rate form:	Customer Charge	\$15.00 per month
	First 100 therms	\$ .55 per therm
	Next 900 therms	.50 per therm
	Over 1000 therms	.45 per therm

Average Gas Cost: \$.35 per therm

Weather Normalization Equations:

Small Commercial - therms = 91 + .6 HDD

Small Industrial - therms = 1051 + 2.5 HDD

Cycle 1 - NDD = 236 ADD = 351

$$WNA_{SC} = \frac{.15\ (.6\ (236-351))}{91 + (.6(351))} = \frac{-10.35}{301.60} = \$-.03432$$

<u>Example WNA Calculations</u> (cont'd)

Cycle 2 - NDD = 406 ADD = 215

$$WNA_{sc} = \frac{.15\ (.6\ (406-215))}{91 + (.6\ (215))} = \frac{17.19}{220.0} = \$.07814$$

Cycle 1 - NDD = 236 ADD = 351

$$WNA_{si} = \frac{.10\ (2.5\ (236-351))}{1051 + (2.5\ (351))} = \frac{-28.75}{1928.5} = \$-.01491$$

Cycle 2 - NDD = 406 ADD = 215

$$WNA_{si} = \frac{.10\ (2.5\ (406-215))}{1051 + (2.5\ (215))} = \frac{47.75}{1588.5} = \$.03006$$

SAMPLE BILLS WITH AND WITHOUT WNA RIDER

Assumptions: Data from Schedule 1.

Cycle 1 Small Commercial Customer Using 302 therms

Bill without WNA	$171.00
Bill with WNA	160.64
Expected bill with normal weather (233 therms)	136.50

Cycle 2 Small Commercial Customer Using 220 therms

Expected bill with normal weather (335 therms)	$187.50
Bill with WNA	147.19
Bill without WNA	130.00

Cycle 1 Small Industrial Customer Using 1,929 therms

Bill without WNA	$938.05
Bill with WNA	909.29
Expected bill with normal weather (1,641 therms)	808.45

Cycle 2 Small Industrial Customer Using 1,589 therms

Expected bill with normal weather (2,066 therms)	$999.70
Bill with WNA	832.82
Bill without WNA	785.05

WEATHER NORMALIZATION ADJUSTMENT BY CYCLE
OCTOBER 1990

CYCLES	RESIDENTIAL THERMS	RESIDENTIAL AMOUNT	RESIDENTIAL CUST	SMALL COMMERCIAL THERMS	SMALL COMMERCIAL AMOUNT	SMALL COMMERCIAL CUST	SMALL INDUSTRIAL THERMS	SMALL INDUSTRIAL AMOUNT	SMALL INDUSTRIAL CUST	GENERAL SERVICE THERMS	GENERAL SERVICE AMOUNT	GENERAL SERVICE CUST	ACTUAL DEGREE DAYS	NORMAL DEGREE DAYS	DAYS IN PERIOD
1	1,294,555.5	(3,521.48)	49,299	589,799.1	(2,912.69)	5,934	28,768.4	(70.82)	76	1,913,123.0	(6,504.99)	55,309	12	9	32
2	982,357.0	(853.95)	44,368	532,323.8	(886.82)	4,756	29,616.5	(17.35)	82	1,544,297.3	(1,758.12)	49,206	12	11	29
3	1,261,594.4	1,208.88	55,703	367,187.7	533.35	3,712	23,527.9	34.34	31	1,652,310.0	1,776.57	59,446	12	13	29
4	1,066,088.7	3,036.61	48,100	328,187.0	1,435.03	3,823	29,298.3	46.40	39	1,423,574.0	4,518.04	51,962	12	15	29
5	1,244,818.6	10,391.59	53,121	485,572.3	6,277.71	4,975	44,367.7	239.19	70	1,774,758.6	16,908.49	58,166	12	21	31
6	1,182,255.0	12,238.66	50,966	369,537.0	7,190.85	3,908	15,428.3	88.52	43	1,567,220.3	19,518.03	54,917	12	23	29
7	1,226,984.9	15,997.02	54,623	381,258.4	7,213.27	3,724	63,922.8	770.20	70	1,672,166.1	23,980.49	58,417	12	25	29
8	1,138,660.3	13,398.45	50,562	385,117.3	5,837.31	3,332	19,948.6	144.17	50	1,543,726.2	19,379.93	53,944	16	29	29
9	1,266,109.1	18,427.47	56,006	514,385.2	10,413.92	4,578	53,742.4	447.27	94	1,834,236.7	29,288.66	60,678	16	32	29
10	1,107,922.4	26,178.21	45,708	351,958.7	13,214.96	3,491	37,085.4	497.90	49	1,496,966.5	39,891.07	49,248	16	42	29
11	1,242,287.9	33,725.54	50,802	414,947.4	15,767.30	3,850	40,706.5	666.22	68	1,697,941.8	50,159.06	54,720	16	46	29
12	1,228,291.7	37,141.06	51,394	522,236.8	22,636.31	3,708	12,527.0	284.62	48	1,763,055.5	60,061.99	55,150	16	50	29
13	1,358,058.8	43,581.41	53,515	427,139.5	19,478.91	3,496	22,325.7	516.92	45	1,807,524.0	63,577.24	57,056	19	55	29
14	1,347,901.0	36,129.89	51,277	335,535.6	10,900.74	3,108	19,095.0	675.37	41	1,702,531.6	47,706.00	54,426	27	60	29
15	1,552,000.7	50,448.37	55,294	411,374.0	15,788.68	3,669	28,925.7	860.64	78	1,992,300.4	67,097.69	59,041	31	75	29
16	1,413,917.3	58,256.50	54,154	414,230.1	23,001.11	3,775	20,870.0	791.89	54	1,849,017.4	82,049.50	57,983	29	79	29
17	1,380,218.6	55,408.17	48,916	327,464.4	15,692.23	2,314	14,370.7	465.09	36	1,722,053.7	71,565.49	51,266	33	84	29
18	1,424,878.6	39,798.16	49,269	355,722.0	11,875.67	2,978	25,780.7	844.32	53	1,806,381.3	52,518.15	52,300	50	89	29
19	1,348,105.7	25,476.47	44,720	415,611.9	8,499.76	3,219	20,337.7	283.18	45	1,784,055.3	34,259.41	47,984	66	95	29
20	2,009,402.5	19,939.42	49,299	364,722.0	4,001.35	2,262	26,829.3	180.68	18	2,400,953.8	24,121.45	51,579	98	115	31
21	1,465,591.0	12,569.40	39,994	506,289.1	5,562.37	3,451	28,487.6	198.96	30	2,000,367.7	18,330.73	43,475	105	121	29
22	0.0	0.00	0	6,462,134.6	31,213.17	1,907	3,533,044.8	8,242.07	434	9,995,179.4	39,455.24	2,341	109	128	29
TOTAL	27,541,999.7	$508,975.85	1,057,090	15,262,733.9	$232,734.49	79,970	4,139,007.0	$16,189.78	1,554	46,943,740.6	$757,900.12	1,138,614			

NOTE: All cycle 22 meters are not read on the same day; therefore, the factor, degree days, and cycle days may vary for customers.

Exhibit No. ____ (HEO-1)
Schedule 3, Page 1 of 2

OCTOBER WEATHER NORMALIZATION ADJUSTMENT BY CYCLE

RESIDENTIAL

CYCLES	R-1 REG THERMS	R-1 REG FACTOR	R-1 REG AMOUNT	R-1 REG CUST	R-1 A/C THERMS	R-1 A/C FACTOR	R-1 A/C AMOUNT	R-1 A/C CUST	R-2 HTG THERMS	R-2 HTG FACTOR	R-2 HTG AMOUNT	R-2 HTG CUST
1	1,221,690.2	-0.002602	(3,162.93)	44,479	24,020.5	-0.002602	(62.51)	122	31,177.2	-0.008028	(245.32)	3,798
2	929,504.5	-0.000867	(779.23)	39,599	8,070.5	-0.000867	(6.98)	51	25,862.1	-0.002676	(51.68)	3,702
3	1,207,249.0	0.000867	1,094.03	50,916	6,272.3	0.000867	5.00	42	28,629.7	0.002676	91.27	3,669
4	1,005,982.8	0.002602	2,677.41	42,960	6,773.4	0.002602	17.76	43	31,682.7	0.008028	278.27	3,938
5	1,189,043.4	0.007808	9,398.43	48,418	6,469.2	0.007808	50.52	52	30,844.9	0.024085	779.67	3,662
6	1,121,035.9	0.009544	10,880.53	45,305	8,065.5	0.009544	76.98	76	34,097.9	0.029437	1,069.24	4,551
7	1,174,031.9	0.012146	14,535.58	49,628	5,019.2	0.012146	60.96	45	30,005.1	0.037465	1,156.89	3,934
8	1,083,646.3	0.010974	12,068.20	45,582	4,634.2	0.010974	50.84	42	31,259.2	0.032311	1,037.27	3,888
9	1,200,321.4	0.013506	16,455.78	50,187	3,518.8	0.013506	47.54	42	37,341.2	0.039767	1,543.36	4,505
10	1,041,598.7	0.021948	23,073.35	40,443	3,508.6	0.021948	77.12	46	35,923.0	0.064622	2,380.35	3,936
11	1,181,005.7	0.025324	30,116.24	45,239	3,927.1	0.025324	99.48	49	38,769.6	0.074563	2,976.01	4,573
12	1,171,590.9	0.028701	33,520.84	46,332	7,796.7	0.028701	219.17	127	33,604.4	0.084505	2,887.70	4,094
13	1,307,018.9	0.029785	40,102.42	48,844	5,880.4	0.029785	177.30	63	32,774.1	0.084938	2,866.40	3,928
14	1,292,824.1	0.025927	33,302.53	47,210	3,184.7	0.025927	82.67	42	30,961.2	0.068583	2,158.81	3,075
15	1,480,737.9	0.030853	45,887.25	49,698	4,448.5	0.030853	137.23	51	48,080.9	0.077165	3,761.42	4,618
16	1,331,721.8	0.038795	51,602.91	48,128	5,019.9	0.038795	193.47	75	54,244.3	0.100909	5,460.06	4,975
17	1,325,071.7	0.038611	50,990.99	44,770	4,014.9	0.038611	155.00	63	38,045.4	0.097298	3,687.30	3,474
18	1,343,391.5	0.026765	35,768.51	43,796	3,835.8	0.026765	102.30	54	54,004.8	0.060373	3,228.57	4,443
19	1,273,413.4	0.018292	23,102.96	40,021	6,233.3	0.018292	113.79	79	50,856.6	0.038126	1,907.04	3,926
20	1,902,399.3	0.009773	18,317.66	45,123	12,823.0	0.009773	120.09	95	73,045.5	0.018182	1,277.39	3,420
21	1,369,221.9	0.008430	11,326.42	35,859	4,302.9	0.008430	36.17	52	68,207.9	0.015383	992.04	3,357
22	0.0	0.000000	0.00	0	0.0	0.000000	0.00	0	0.0	0.000000	0.00	0
TOTAL	26,152,501.2		460,279.88	952,537	137,819.4		1,753.90	1,311	839,417.7		39,242.06	83,466

Exhibit No. ____ (HEO-1)
Schedule 3, Page 2 of 2

ATLANTA GAS LIGHT COMPANY

Weather Normalization Adjustment Rider

Georgia Public Service Commission
244 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

DOCKET NO. 3855-U

IN RE: Application for Authority to Increase Rates and Charges for Gas Service.

Decided: July 31, 1989

A P P E A R A N C E S

FOR ATLANTA GAS LIGHT COMPANY:

Albert G. Norman, Jr., Attorney
Gordon D. Giffin, Attorney

FOR THE UTILITY FINANCE SECTION, GEORGIA PUBLIC SERVICE COMMISSION:

Victoria H. Tobin, Assistant Attorney General
Nancy M. Gallagher, Assistant Attorney General

FOR THE OFFICE OF CONSUMERS' UTILITY COUNSEL OF GEORGIA (CUC):

Mollie Fleeman Glitsis, Consumers' Utility Counsel
Nancy Gibson, Attorney

FOR THE INTERVENORS:

C. Christopher Hagy, Attorney, and James H. Wildman, Attorney representing Georgia Industrial Group (GIG)

James L. Clegg, Attorney, representing Columbia Nitrogen Corporation

Fred K. Harvey, Jr., Attorney, representing DSM Chemicals Augusta, Inc.

William W. Maycock, Attorney, representing Southwire Company.

M. Robert Thornton, Attorney, representing Southern Natural Gas Company

Lynn Westergaard, representing Resource Service Ministries, Inc.

BY THE COMMISSION:

On March 31, 1989, Atlanta Gas Light Company (hereinafter "Company") filed with the Commission pursuant to O.C.G.A. Section 46-2-25 schedules which, among other things, contained new rates and charges designed to collect an additional $45,041,000 in revenues per year with a proposed effective date of May 1, 1989.

Pursuant to O.C.G.A. Section 46-2-25(b), the Commission, on April 20, 1989 suspended the implementation of the schedules for an additional five months in order to allow for an adequate examination as to whether the proposed changes were just and reasonable.

A written stipulation (the "Stipulation") dealing with the various issues raised by the Company's filing in this docket was entered into on July 28, 1989, by the Company, the Staff of the Commission, Consumers' Utility Counsel, Columbia Nitrogen Corporation, DSM Chemicals Augusta, Inc., the Georgia Industrial Group, Southwire Company, Southern Natural Gas Company, and Resource Service Ministries, Inc., who constitute all of the parties, intervenors, or applicants for intervention, in this proceeding. At the Administrative Session on July 31, 1989, the Stipulation was received into the record. Based upon the record, the Commission makes the following findings of fact and conclusions of law:

FINDINGS OF FACT

1. Revenue Deficiency

The Commission finds that the Company's existing base rates and charges for gas service shall be increased by $17,800,000. In determining the revenue requirement of $17.8 million the Commission finds that a weighted average cost of capital of 11.44% calculated by using the Company's prefiled capital structure and embedded cost rates of long-term debt, short-term debt and preferred stock, and a 13.00% return on equity is appropriate. The Commission further finds that pro-Forma Revenues under present rates in the test year shall be increased by no less than $6.6 million and no more than $6.8 million, reflecting weather normalization using the NOAA thirty year normal degree days and revised weather normalization factors.

2. Rate Design

The Commission finds that the Company shall be authorized to place rates implementing the approximately $17.8 million increase into effect on October 1, 1989, with rate schedules determined according to the following findings.

a. Interruptible and Developmental Rates

The Company's proposal to eliminate its interruptible rate schedules N-7-S, Special Interruptible and SGN-17 ("South Georgia rates") and place customers currently served under these rates on rate schedule N-5, is appropriate and is approved.

The Company's current developmental rates, N-12, N-4, N-13 and N-14, shall be eliminated and customers currently served under these rates will be placed on the applicable statewide rate schedules. This elimination of the current developmental rates shall not be deemed to foreclose future application of developmental rates to new service territories as might be approved by the Commission.

The Company shall be authorized to design rates in the manner described below to recover revenue shortfall resulting from the elimination of the Interruptible and Developmental Rates, in addition to the $17,800,000 rate increase.

b. N-16 and N-5 Customer Charge

A $250.00 per month customer charge shall be added to the interruptible rate schedule N-16 and N-5.

c. Returned Check Charge

The Company's current returned check charge shall be raised to $20.00.

d. Revenue Deficiency Allocation

The remainder of the increase, after counting for the N-16 and N-5 customer and Returned Check Charge, shall be allocated by an equal percentage increase to each of the Company's rate schedules based upon the ratio of the firm revenues from each schedule to the total firm revenues of the Company. Revenues from the customer charge on the Company's low income elderly rate, N-3, shall be excluded from the firm revenues in this calculation and such customer charge shall not be increased.

The increase allocated to firm gas sold under the Company's interruptible rates shall be determined by applying the percentage increase applicable to other firm service to firm revenue produced by Firm Use Charges and Firm Commodity Charges under the interruptible rate schedules that have such charges, but shall be collected by an increase in the Firm Use Charge only.

The remaining revenue deficiency shall be allocated to rate schedules consistent with the Company's proposed revenue allocation and rate design contained in its filing.

e. Terms of Service

The Company's amendment to paragraph 7 of Terms of Service for General Service Rates Natural Gas Service shall be approved, as filed.

f. Weather Normalization Adjustment Rider

The Company's proposed Weather Normalization Adjustment (WNA) Rider shall be approved with the following modifications:

(a) The Heat Sensitive Factor (HSF) and Base Load sales (BL) for each general service rate schedule are set forth on Attachment 2 to the Stipulation, consistent with the revised weather normalization adjustment referenced above.

(b) The weighted average base rate (R) used in determining the weather normalization adjustments for each rate schedule shall be computed and applied separately for each month for which a weather normalization adjustment is determined.

(c) The proposed formula for computing the weather normalization adjustment shall be approved. However, it is recognized that the use of predicted average consumption rather than actual average consumption in the formula to determine the adjustment is necessitated by the Company's current billing system. The Company will analyze the impact of using this approximation and study the feasibility of using actual average consumption.

(d) Since the WNA Rider represents an innovative ratemaking concept, the Company's experience with its application should be thoroughly reviewed at the time of the Company's next general rate filing but no later than October 1, 1991. The Company will maintain records and reports sufficient to allow such a review.

3.

The Commission finds that all of the parties, intervenors, and applicants for intervention, in this proceeding have entered into the Stipulation. The Commission finds that it is in the public interest to accept the Stipulation of the parties and it is therefore made a part of the order by reference thereto.

CONCLUSIONS OF LAW

In accordance with the foregoing findings of fact, the Commission hereby makes the following conclusions of law:

1.

The Commission concludes that it has jurisdiction in this matter pursuant to O.C.G.A. Section 46-2-25. The Commission further concludes that it is authorized to approve the Stipulation pursuant to O.C.G.A. Section 50-13-13(a)(4).

2.

Because this matter has been presented for decision as a stipulated settlement, a limited hearing was held. The Commission has, however, reviewed the Company's filing, the Company's responses to discovery initiated by the Commission Staff and other parties to the case, and the adjustments to the Company's filing reflected in the Stipulation, and concludes that changes in the rates, charges, and Rules and Regulations of the Company are justified to the extent set forth in the Stipulation.

3.

The Commission concludes that the Company's existing base rates for gas service shall be increased by approximately $17.8 million annually.

4.

The Commission concludes that the base rate increase of $17.8 million shall be spread to the Company's schedules of rates and charges consistent with the foregoing findings of the Commission.

5.

The Commission concludes that the Company's rates, charges, and Rules and Regulations as modified by the provisions of the Stipulation and of this order, are reasonable and just.

The Commission concludes that neither the Stipulation nor this order shall have any precedential significance.

WHEREFORE, it is

ORDERED, that the Company be and hereby is authorized to increase its rates and charges for gas service so as to produce approximately $17,800,000 in additional annual revenues.

ORDERED FURTHER, the Atlanta Gas Light Company be, and it is hereby directed to adjust its rates, charges, Rules and Regulations and practices as set forth in this order, said rates and charges to go into effect on October 1, 1989.

ORDERED FURTHER, that the Company shall file within thirty (30) days of the effective date this order, revised rate schedules, Rules and Regulations and tariff provisions compiled in accordance with the provisions of this order.

ORDERED FURTHER, that jurisdiction over this proceeding is expressly retained for the purpose of entering such further order or orders as this Commission may deem just and proper.

ORDERED FURTHER, that a motion for reconsideration, rehearing, or oral argument shall not stay the effective date of this order, unless otherwise ordered by the Commission.

The above by action of the Commission in Administrative Session on July 31, 1989.

William J. Buckner
Executive Secretary

8-22-89
Date

Robert C. Pafford
Chairman

8-23-89
Date

ATLANTA GAS LIGHT COMPANY

RATE ________

TERMS OF SERVICE APPLICABLE TO ALL GENERAL SERVICE RATE SCHEDULES NATURAL GAS SERVICE

11. WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

I. Provisions for Adjustment

The base rates per therm (100,000 Btu) for gas service set forth in all of the General Service rate schedules of Atlanta Gas Light Company (Company) shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment."

II. Definitions

For purposes of this Rider:

"Commission" means the Georgia Public Service Commission

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

III. Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment shall be computed to the nearest one-hundredth cent per therm by the following formula:

$$WNA_i = R_i \frac{(HSF_i \ (NDD-ADD) \quad)}{(BLi + (HSFi \times ADD))}$$

Where: i = any particular General Service rate schedule or billing classification within any particular General Service rate schedule that contains more than one billing classification

WNA_i = Weather Normalization Adjustment Factor for the i^{th} rate schedule or classification expressed in cents per therm

Effective:
With service on and after
October 1, 1989

ATLANTA GAS LIGHT COMPANY

RATE ________

TERMS OF SERVICE APPLICABLE TO ALL GENERAL SERVICE RATE SCHEDULES
NATURAL GAS SERVICE

III. Computation of Weather Normalization Adjustment (cont'd)

R_i = weighted average base rate of temperature sensitive sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

HSF_i = heat sensitive factor for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

NDD = normal billing cycle heating degree days utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

ADD = actual billing cycle heating degree days

BL_i = base load sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

IV. Filing with Commission

The Company will file as directed by the Commission (a) a copy of each computation of the Weather Normalization Adjustment, (b) a schedule showing the effective date of each such Weather Normalization Adjustment, and (c) a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

Effective:
With service on and after
October 1, 1989

RIDER "D"

WEATHER NORMALIZATION CLAUSE

APPLICABLE TO SERVICE CLASSIFICATIONS RS AND GS

In the winter months October through April, a weather normalization rate shall be applied to the rates quoted in this Tariff under the service classifications shown above, except as may be otherwise provided for in the individual service classification. The weather normalization rate applied in each winter period shall be based on the differences between actual and normal weather during the preceding winter period. The weather normalization rate shall be determined as follows:

I. Definition of Terms as Used Herein

1. - Degree Days (DD) - the difference between 65°F and the mean daily temperature. The mean daily temperature is the simple average of the highest and lowest recorded temperature of that day.

2. Actual Calendar Month Degree Days - the accumulation of the actual Degree Days for each day of a calendar month.

3. Normal Calendar Month Degree Days - the level of calendar month degree days to which test year sales volumes were normalized in the base rate proceeding that established the current base rates for the service classifications to which this clause applies. The normal calendar month Degree Days used in this clause may be updated in base rate cases. The normal degree days for the defined winter period months, as of the conclusion of Docket No. GR91081393J, are:

	Central Division		Northern Division	
Oct.	265		369	
Nov.	516		630	
Dec.	851		982	Leap Year
Jan.	1020	Leap Year	1128	
Feb.	831	866	913	950
March	720		747	
April	446		433	

RIDER "D"
(continued)

Definition of Terms as Used Herein

4. Winter Period - shall be the seven consecutive sales and calendar months from October of one calendar year through April of the following calendar year.

5. Degree Day Dead Band - shall be one-half (1/2 %) percent of the sum of the cumulative Normal Calendar Month Degree Days for the Winter Period.

6. Degree Day Consumption Factors - the weighted average of the variable component (use per degree day) of the gas sales equations for the winter period months used in forecasting firm gas sales for each applicable customer class in the Northern and Central Divisions. These factors may be updated in base rate cases. The current degree day consumption factor as of the conclusion of Docket No. GR91081393J are 55,738 therms per degree day in the Central Division and 9,264 therms per degree day in the Northern Division.

7. Margin Revenue Factor - the weighted average tail block rate as quoted in the individual service classes to which this clause applies net of: Gross Receipts and Franchise Taxes, Base Gas Costs, and any adjustment from Rider "A" Levelized Gas Adjustment Clause and Rider "C" Remediation Adjustmetn clause. The weighted average shall be determined by multiplying the marginal revenue component of the tail block rate of each service class to which this clause applies by each class's percentage of total consumption of all the classes to which this clause applies for the winter period and summing this result for all the classes to which this clause applies. The Margin Revenue Factor shall be redetermined each time new base rates are put into effect. The current Margin Revenue Factor is $.2203 per therm.

8. Annual Period: shall be the 12 consecutive months from October 1 of one calendar year through September 30 of the following calendar year.

9. Average 13 month common equity balance: shall be the common equity balance at the beginning of the Annual Period (i.e. October 1) and the month ending balances for each of the twelve months in the Annual Period divided by thirteen (13).

RIDER "D"

(continued)

II. Determination of the Weather Normalization Rate

At the end of the Winter Period during the Annual Period, a calculation shall be made that determines for all months of the Winter Period the level by which margin revenues differed from what would have resulted if normal weather (as determined by reference to the Degree Day Dead Band) occurred.

This calculation is made by multiplying the Degree Day Consumption Factor by the difference between cumulative Normal Calendar Month Degree Days as adjusted for the Degree Day Dead Band, and cumulative Actual Calendar Month Degree Days and, in turn, multiplying the result by the Margin Revenue Factor. To the extent the cumulative Actual Calendar Month Degree Days exceeds cumulative Normal Calendar Month Degree Days as adjusted for the Degree Day Dead Band, an excess of margin revenues exist. To the extent cumulative Actual Calendar Month Degree Days were less than cumulative Normal Calendar Month Degree Days as adjusted for the Degree Day Dead Band, a deficiency of marginal revenue exists. If, at the end of the Winter Period of the Annual Period, the cumulative degree day variation from normal weather is less than the Degree Day Dead Band, the weather normalization clause will not be in effect.

In addition, the weather normalization clause shall not operate to permit the Company to recover any portion of a margin revenue deficiency that will cause the Company to earn in excess of its allowed rate of return on common equity of 12.2% for the Annual Period; any portion which is not recovered shall not be deferred. For purposes of this section, the Company's rate of return on common equity shall be calculated by dividing the Company's regulated jurisdictional net income for the Annual Period by the Company's average 13 month common equity balance for such Annual Period, all as reflected in the Company's monthly reports to the Board of Regulatory Commissioners. The Company's regulated jurisdictional net income shall be calculated by subtracting from total net income (1) margins retained by the Company from non-firm sales and transportation services, net of associated taxes, and (2) net income derived from unregulated activities by New Jersey Natural Gas Company. The Company's average thirteen month common equity balance for any Annual Period shall be the Company's average total common equity less the Company's average common equity investment in unregulated subsidiaries.

RIDER "D"

(continued)

The balance of margin revenue excess or deficiency at September 30 of the Annual Period shall be divided by the estimated applicable sales from the classes subject to this clause for the Winter Period over which this rate will be in effect, multiplied by a factor to adjust for increases in taxes and assessments. The product of this calculation shall be the Weather Normalization Rate. However, the Weather Normalization Rate will at no time exceed three (3%) percent of the then applicable Residential Service tail block rate. To the extent that the effect of this rate cap precludes the Company from fully recovering the margin deficiency for the Annual Period, the unrecovered balance will be added to or subtracted from the margin deficiency or margin excess used to calculate the weather normalization rate for the next Winter Period. The Weather Normalization Rate, so calculated, will be in effect for the Winter Period immediately following the Annual Period used in such calculation.

III. Tracking the Operation of the Weather Normalization Clause

The revenues billed, or credits applied, net of taxes and assessments, through the application of the Weather Normalization Rate shall be accumulated for each month of the Winter Period when this rate is in effect and applied against the margin revenue excess or deficiency from the immediately preceding Winter Period and any cumulative balances remaining from prior Winter Periods.

The annual filing for the adjustment to the weather normalization rate shall be concurrent with the annual filing for the Rider "A" Levelized Gas Adjustment Clause.

RIDER "D"
(Continued)

WEATHER NORMALIZATION CLAUSE

Applicable to Gas Used
Under Service Classifications
RS and GS

October through April	$0.000 per therm
May through September	Not Applicable

AGENDA DATE: 6/24/92

State of New Jersey
Board of Regulatory Commissioners
CN 350
Trenton, NJ 08625-0350

GAS

IN THE MATTER OF THE PETITION OF NEW JERSEY NATURAL GAS COMPANY FOR APPROVAL OF INCREASED BASE TARIFF RATES AND CHARGES FOR GAS SERVICE AND OTHER TARIFF REVISIONS	ORDER ADOPTING PARTIAL INITIAL DECISION BRC DOCKET NO. GR91081393J OAL DOCKET NO. PUC9508-91

(SEE ATTACHED SERVICE LIST)

BY THE BOARD:

On August 22, 1991, New Jersey Natural Gas Company ("NJNG" or "Company"), pursuant to N.J.S.A. 48:2-21 and N.J.A.C. 48:2-21.1, petitioned the Board of Regulatory Commissioners ("Board"), for authority to increase its rates for gas service by $15,772,000, on an annual basis. This represents an increase of approximately 4.1% over present pro forma revenues.

The matter was transmitted to the Office of Administrative Law (OAL) and was assigned to Administrative Law Judge (ALJ) William Gural. The Board issued its first Suspension Order suspending the effective date of the proposed rate increase in this matter on September 26, 1991. The Board issued a second Suspension Order on January 16, 1992 extending suspension of the proposed rates until May 23, 1992.

A prehearing conference was held on November 14, 1991 before ALJ William Gural. Upon proper notice, public hearings were held in the matter in the Borough of Freehold, on January 6, 1992, in the Township of Toms River on January 7, 1992, and in the Township of Mountain Lakes on January 8, 1992 before ALJ William Gural. This case was subsequently reassigned to ALJ Irene Jones. Evidentiary hearings were held in Newark on February 26 and 28; March 6, 9, 16, 23, 30; April 3, 14, 15; and May 7 and 13, 1992 before ALJ Irene Jones. A deposition of NJNG's witness, Mr. Hearne, was held on March 12, 1992.

As to the off-system sales issue, the parties agree that this issue will be addressed in the Company's upcoming Levelized Gas Adjustment proceeding to be filed in July, 1992.

In addition, the parties agree that the load analysis of the general service rate class required to be filed by the Board Decision in Phase II Docket No. GR90080786J would be submitted by June 1, 1992. The Company submitted a preliminary analysis on May 7, 1992. This analysis was updated on June 18, 1992. The parties will be meeting to review this analysis in detail. This load analysis and its results will be reviewed in the Company's next base rate case filing.

With regard to the proposal for an electric tariff, the parties reserve their rights to petition the Board by December 31, 1992 and to provide the Board the opportunity to resolve this issue by July 1, 1993. In the interim, the Company agrees not to renew any of its gas service contracts with Jersey Central Power and Light Company prior to July 1, 1993. These contracts are not up for renewal until next year. The parties agree to meet informally in an attempt to resolve this issue before December 31, 1992.

3. **Weather Normalization clause** - NJNG will be permitted to implement on an experimental basis a Weather Normalization Clause as more fully described in the tariff sheets attached to the Stipulation as Appendix A. It is the intent of the parties that the Weather Normalization Clause be implemented on an experimental basis for a minimum period encompassing two full heating seasons (1992-1993) and (1993-1994). The Weather Normalization Clause will be reviewed in the first base rate or LGA proceeding filed during or after the 1993-1994 heating season. Such review will include, *inter alia*, an assessment of the impact of the clause on the Residential Service No-Heat sub-class. The parties acknowledge that, after such review, the Board may determine to continue, amend, modify or discontinue the Weather Normalization Clause. NJNG has agreed to provide the parties with an interim report by no later than the 15th day of each heating month, and a final report by no later than June 1 following the conclusion of each heating season, describing the operation of the Weather Normalization Clause during such heating season.

The Board, having reviewed the attached Stipulations of the parties and the Partial Initial Decision of ALJ Jones, is satisfied that the Stipulations represent a fair and reasonable resolution of complex issues and are in the public interest. Accordingly, the Board <u>HEREBY ADOPTS</u> these Stipulations and the Partial Initial Decision as it own. Further, with respect to the prior coal gasification plant sites which are subject to the Remediation Adjustment Rider, the Board <u>ORDERS</u> that the Company notify and provide the Board with details of any proposed sale of such a site at least -ixty (60) days prior to any such sale.

In approving the Weather Normalization Clause, the Board wishes to emphasize that this is being done on a two year experimental basis and the results will be carefully monitored by the Staff and reviewed by the Board. The results will also be subject tc audit by Board Staff. The Board wishes to emphasize that the Weather Normalization Clause is tied to the differences between actual and normal weather during the preceding winter period based solely upon degree days. The Board also notes that the Stipulation provides that the operation of the Weather Normalization Clause will be subject to an earnings test and that the Clause will not allow the the Company to recover any portion of a margin revenue deficiency that will cause the the Company to earn in excess of its allowed rate or return on common equity of 12.2% for the annual period.

The Company has submitted proposed tariffs which conform to the terms and conditions of the Stipulation. The Board has reviewed these tariff pages and <u>HEREBY FINDS</u> them to be consistent with the terms of the Stipulation. The Board <u>HEREBY ACCEPTS</u> the tariff pages, effective for service rendered on and after the date of this Order.

DATED: June 24, 1992

BOARD OF REGULATORY COMMISSIONERS
BY:

Edward H. Salmon

DR. EDWARD H. SALMON
CHAIRMAN

Jeremiah F. O'Connor

JEREMIAH F. O'CONNOR
COMMISSIONER

Carmen J. Armenti

CARMEN J. ARMENTI
COMMISSIONER

ATTEST: Irene Johnson

IRENE JOHNSON
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original In the files of the Board of Public Utility commissioners.

Chrys Wilson

Chrys Wilson
Secretary

BROOKLYN UNION GAS COMPANY

Weather Normalization Adjustment

ORIGINAL ORDER
Brooklyn Union Gas C
Case 27631

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of New York on November 19, 1980

COMMISSIONERS PRESENT:
Charles A. Zielinski, Chairman
Edward P. Larkin
Carmel Carrington Marr
Harold A. Jerry, Jr.
Anne F. Mead
Richard S. Bower, dissenting

Case 27631 - The Brooklyn Union Gas Company - Weather Adjustment Clause

* * *

In Case 27631, The Brooklyn Union Gas Company (Brooklyn Union) proposed a weather adjustment clause to replace its revenue stabilization clause which the company discontinued on December 1, 1979. In our decision rendered on September 4, 1980, we reserved decision on the proposed clause, and Brooklyn Union was directed to supply additional information concerning the proposal and its implications. By affidavit of September 24, 1980, the supplemental information was submitted to the Commission and served on all parties to the proceeding. No comments were received from any parties.

We have reviewed the additional information supplied by Brooklyn Union and find that the proposed weather adjustment clause as modified is acceptable, and it will be authorized for a period of one year on an experimental basis. Accordingly it is

O R D E R E D:

1. Brooklyn Union is authorized to file amendments to its tariff, on not less than three days notice to the public and this Commission, to implement the weather adjustment clause on an experimental basis.

2. That the requirement of Public Service Law and 16 NYCRR 270.70 that newspaper publication shall be completed prior to the effective date of the amendments and supplement is for good cause shown waived, but The Brooklyn Union Gas Company is directed to file with the Commission, not later than January 25, 1981, proof that a notice to the public of the changes proposed by the amendments and supplement and their effective date has been published once a week for four successive weeks in a newspaper having general circulation in the counties affected by the amendments and supplement.

3. This proceeding is continued.

By the Commission,

(SIGNED)

SAMUEL R. MADISON
Secretary

GENERAL INFORMATION—Continued

Volume Interruptible Service, Service Classification No. 6, as contained on Leaf No. 27 to this Schedule for Gas Service, P.S.C. No. 11—GAS. The equivalent oil cost for Service Classification No. 6A shall be computed in accordance with the provisions relative to the Alternate Fuel Adjustment for Service Classification No. 6A as contained on Leaf No. 12E to this Schedule for Gas Service, P.S.C. No. 11—GAS. The Company may, at its sole option, discount the posted price per barrel of Nos. 4 and 6 fuel oil used in the computation of the equivalent oil costs by up to 15 percent. In the event that either subtraction described above results in a negative number, the Fuel Oil Surcharge will be zero.

When applicable, the Fuel Oil Surcharge shall be shown on the Statement of Gas Adjustment filed with the Commission.

Weather Normalization Adjustment

Commencing February 1, 1981 the gas adjustment applicable to Service Classification Nos. 1, 2, 3, 4A and 4B, computed in the manner provided for in this Schedule for Gas Service, shall be subject to a monthly Weather Normalization Adjustment (see Leaf No. 12A subparagraph (8)) to reflect variations from normal weather experienced after December 1, 1980.

The monthly Weather Normalization Adjustment shall be computed for the months of October through May, both inclusive, by multiplying the variation in Degree Days between Actual and Normal (as defined below) by the corresponding month's gas quantity per degree day factor (as defined below). The resultant quantity shall be further multiplied by \$3.12 per dth to arrive at Weather Related Revenues. Each month's Weather Related Revenues shall be divided by the projected firm billed sales for the second succeeding month and adjusted for revenue taxes to arrive at the Weather Adjustment Factor.

If the month's weather is colder than normal, the Weather Adjustment Factor will be subtracted from the normal monthly Gas Adjustment (as otherwise computed in accordance with this tariff) for the second succeeding month and applied to customer's bills. If the month's weather is warmer than normal, the Weather Adjustment Factor shall be added to the normal monthly Gas Adjustment for the second succeeding month.

Month	Normal Degree Days	Quantity per Degree Day (dth)
October	225	6,250.0
November	534	12,500.0
December	900	12,500.0
January	1007	12,500.0
February	890*	12,500.0
March	741	12,500.0
April	406	12,500.0
May	134	6,250.0

* 915 for leap years.

When applicable, the Weather Normalization Adjustment shall be shown on the Statement of gas Adjustment filed with the Commission.

Continued on next Leaf

Issued under authority of order of Public Service Commission, State of New York, dated October 26, 1989 in Case 88-G-225

ALABAMA GAS COMPANY

Temperature Adjustment Rider

Alabama Gas Company
Dockets 18046 & 18328

DCF METHOD	BASED ON Average price	Current price
Energen	11.5%-12.5%	11.4%-12.4%
Gas Distribution Companies using:		
- Retention Growth	11.79%	12.03%
- Value Line Growth	11.70%	11.93%
- Historical Growth	11.4%-13.4%	11.6%-13.6%
RISK PREMIUM		
Five year premiums		11.6%-12.9%
Longer-term premiums		12.8%-14.1%
COMPARABLE EARNINGS		
Value Line Projections:	1990	1992-1994
- Energen	10.5%	13.0%
- Gas Distributors	12.6%	14.1%

Recommended Range Without Flotation Cost Allowance 12.25%-12.75%

Recommended Range With Flotation Cost Allowance 12.50%-13.00%

Adjusting Point 12.75%

After careful consideration of the evidence presented, including both the economic analyses and testimony presented by Drs. Legler and Morin, the Commission chooses to extend the use of the current range through the extension period granted herein. We find that the current range of 13.15% to 13.65% accurately reflects the Company's cost of equity and enables it to attract investors. Current economic conditions do not warrant an increase in the allowed return nor do they dictate that a decrease is appropriate and, therefore, the Commission finds that an extension of the current equity return range is fair and reasonable both to the Company and the consuming public.

In connection with our findings above regarding the appropriate RCE range, the Commission recognizes that there may be a need periodically to review the appropriateness of that range to ensure that it continues to reflect fairly the Company's cost of common equity. Consequently, if during the extension period, cost of equity capital changes significantly from that experienced currently, the Commission may, at its discretion, call for a review as to the appropriateness of the RCE range in light of then-existing economic conditions.

B. <u>Weather Normalization</u>

As noted, TBA recommended that consideration be given to a real-time weather normalization provision to be included in the Company's base tariff, and that issue was listed in our February 21, 1990, Notice to all interested parties.

In response to our Notice, the Company sponsored the testimony of G. Gerald Turner, its Vice President-Rates, who testified in support of a proposed weather adjustment. Mr. Turner's testimony on this issue consisted of prefiled direct written testimony (Tr. Vol. 1, pp. 150-154) as well as a written response to the Attorney General's Sixth Data Request, which was marked as Commission Exhibit 3 and admitted into evidence without objection.

The Commission scheduled a separate hearing date, September 28, 1990, for purposes of allowing cross-examination by the Intervenors of Mr. Turner on the weather adjustment issue. Upon request of the Attorney General and upon agreement of all parties, that hearing was cancelled and no further cross-examination of Mr. Turner on this issue occurred.

Mr. Effron testified generally on the weather adjustment issue by stating that while there are potential advantages to a real time weather normalization procedure, he did not have a position regarding its propriety at the time his direct testimony was filed. (Tr. Vol. I, p. 5). During the course of rebuttal testimony on October 2, 1990, Ms. Smith noted that TBA recommended a weather adjustment only if the Company should demonstrate the benefits to customers and make the results of any such adjustment available for inspection and verification. (Tr. Vol. II, p. 45).

Mr. Turner testified that under the current RSE formula, customers pay higher bills in colder than normal weather and lower bills in warmer than normal weather (Tr. Vol. I, p. 151), and that the proposed adjustment to customers' bills for temperature would reduce bills in colder weather, increase bills in warmer weather, and would allow the Company's fixed costs to be recovered on a more stable basis. (Tr. Vol. I, P. 151). He also noted that the proposed adjustment would more truly reflect the cost of service to a customer. (Tr. Vol. I, P. 151).

The Company's proposed weather adjustment actually consisted of two (2) adjustments. Adjustment 1 would normalize bills for temperature sensitive rate schedules in the month of billing, while Adjustment 2 would correct for variances caused by non-temperature related factors such as cloud cover, rain, wind and other factors (Commission Exhibit 3). Adjustment 2, as proposed, is in reality a "trailing adjustment" which would be computed in the month following the month of billing and adjusted in the rates of the subsequent month (Commission Exhibit 3).

The Commission has reviewed the evidence presented on this issue and finds that the record supports Adjustment 1 of the Company's proposal, and we, therefore, adopt Adjustment 1 as a part of this Order.

Said adjustment shall adjust monthly bills for the temperature sensitive portion of the non-gas costs for the deviation from normal weather. Our finding is consistent not only with the specific evidence of record on this issue, but also with the precedent we have established through two prior renewal and extension proceedings involving Rate RSE for the Company in which we have modified the formula in recognition of the seasonal nature of the gas distribution business. Adjustment 2, i.e., the second step adjustment for non-temperature related factors, is not supported by the evidence and the Commission declines to adopt it as a part of the weather normalization modification.

C. RSE Revenue Limitation

TBA recommended that a reevaluation of the annual revenue provision and percentage limitation included in the current RSE agreement be included in the RSE renewal process.

In response to this issue, the Company sponsored Mr. Turner who testified in support of an increase in the 1% quarterly limitation to 2% in any one quarter, with the same 4% annual limitation currently contained in the RSE agreement. (Tr. Vol. I, pp. 149-50). Mr. Turner testified that allowing rate changes of up to 2% of revenues in any one quarter would help eliminate that portion of the "regulatory lag" still inherent in the RSE formula (Tr. Vol. I, p. 150). In order to assume no greater revenue changes on an annual basis than are currently provided for in the formula, Mr. Turner testified that total rate changes under Rate RSE should be limited to 4% of annual billings in any consecutive twelve (12) month period, thus preserving the annual cap of four (4%) percent. (Tr. Vol. I, p. 150).

Currently, the revenue level to which the cap applies is the Company's 1984 revenue or approximately $412,402,700. (Tr. Vol. I, p. 150). Mr. Turner testified in support of a revenue level equal to total billings for deliveries of gas and other services (including transportation of gas as well as sales of gas) in its latest fiscal year, which for fiscal year ended September 30, 1989, approximated $350,000,000. (Tr. Vol. I, p. 150).

In response to this issue, the Attorney General sponsored Mr. David Effron, who testified that in his opinion, no increase in the 1% quarterly limitation is necessary. (Tr. Vol. I, p. 303).

The evidence presented during the hearing relates to both the frequency of rate increases to the Company as well as to the recovery of those increases given the seasonal nature of the gas distribution business. As Mr. Turner testified, there have been five (5) occasions during the operation of Rate RSE when the formula actually called for a quarterly increase greater than the 1% cap. (Tr. Vol. I, p. 150). Even so, the Commission takes administrative notice of the fact that the rate increases called for by the RSE formula have never exceeded the 4% annual cap. Elsewhere in this order, we address the issue of regulatory lag and the frequency of rate increases under the current formula. The modification adopted to address that issue is directly related to the percentage limitation issue discussed herein. We agree that an annual percentage limitation remains an important safeguard under the RSE formula and also find that a more current basis for that well and enabled the Commission to better carry out its statutory purpose. Rate RSE and all modifications adopted herein are fair, reasonable and in the public interest.

Based upon: (1) the satisfactory and proven operation of the rates which have now been in place for over seven years and which have been the subject of three reviews by the Commission and its Staff and all interested parties since 1983; (2) the favorable findings and conclusions by TBA; and most importantly, (3) the evidence presented at these hearings, the Commission finds that Rate RSE has continued to work well to the advantage of both the consumers and the Company and should be continued, with the modifications discussed herein.

VII. ORDERING PARAGRAPHS

Considering the foregoing findings and the entire record in Docket Numbers 18046 and 18326, as well as the record developed during the period Rate RSE, as extended from time to time, has been in effect including the TBA report,

IT IS ORDERED BY THE COMMISSION that:

(1) Rate RSE and the Special Rules Governing Operation of Rate RSE (with the modifications described above), shall continue to operate concurrently but independently to provide the respective adjustments and charges (increases or decreases) provided for by such rates through November 30, 1993. Adjustments under Rate RSE shall continue after November 30, 1993, provided however, the Commission may, after reasonable notice to the Company, affirmatively vote to modify Rate RSE or discontinue the operation of Rate RSE after such date.

(2) The range of Return on Common Equity (RCE) shall be 13.15% to 13.65%, with an Adjusting Point of 13.40%. The Commission may, at its discretion, review the RCE range if during the extension period costs of equity capital significantly change from those experienced currently, to consider whether the range is still appropriate in light of then-existing economic conditions as further described in paragraph 4 below.

(3) The Commission accepts the Company's agreement with Kimbrough to expand Rate Rider SSI to include customers receiving Aid to Dependent Children (ADC) benefits. Any costs associated with this waiver shall be allocated to the base customer charge of Rate Schedule R residential ratepayers which shall not exceed $8.00 per month. If such costs would result in the base customer charge exceeding $8.00 per month, then such additional costs shall be recovered volumetrically from residential customers. The Company is directed to file a new Schedule of Rates and a new Rate Rider SSI to Residential Gas Service to reflect the resulting revenue effect.

(4) In furtherance of the goals of providing stable rates, the Company commits, by its acceptance of this rate order,

to make no general rate increase filings to be effective prior to December 1, 1993. It is likewise the commitment of the Commission, by reason of the Company's acceptance of this rate order, to make no change in Rate RSE, nor reductions in the rate schedules to which they apply, to be effective prior to December 1, 1993, and to make no changes in the RCE range before July 31, 1992. However, it is expressly recognized that an unforeseen event, whether physical or economic, of the nature of force majeure may occur. In such event, the Company and the Commission shall consult in good faith to determine whether such commitments should be modified and, failing agreement thereon, the Commission and the Company may take such actions as in good conscience they deem appropriate.

(5) The Company shall indicate its acceptance of this Order and its provisions in writing by a filing with the Commission within eight (8) working days of the date hereof.

(6) The Company shall, within eight (8) working days of the date hereof, file tariff sheets for Rate RSE, and the related Special Rules revised in accordance with the provisions of this Order.

(7) The Company shall implement the Temperature Adjustment in accordance with our findings in Section III. B hereof, effective with bills dated December 15, 1990. However, it is recognized that the revised temperature adjustment ordered herein has not been reflected in actual earnings for the period October 1 to December 15, 1990. The Company shall adjust the Director approved budget for Fiscal Year 1991 to reflect actual earnings for October and November and estimated cycle billings for December 1 through 15 in keeping with the temperature adjustment provisions herein in the RSE filing to be effective December 15, 1990.

(8) Stockholders' equity at September 30 of each year shall be limited to 60% of capitalization, in accordance with Section III D herein.

(9) The Efficiency Standard discussed in Section IV (B) shall be implemented in order to monitor the Company's Operation and Maintenance expense levels. The measure of efficiency shall be O&M expense per customer. The Index shall be the Consumer Price Index for All Urban Consumers (CPI-U). If, upon annual fiscal year review, O&M expense per customer is greater than the Index plus 1.25% the Company will return three-quarters (75%) of the difference to customers through the adjustment for rates to be effective December 1. If such O&M expense per customer is less than the Index minus 1.25%, the Company will net one-half (50%) of the difference to rate reductions, if any, effective April 1, July 1 or October 1, otherwise to the RSE adjustment to be effective the next December 1 through the following September 30.

TEMPERATURE ADJUSTMENT RIDER (N)

Charges for gas Service to Consumers served under Rate Schedules R, MH, SC, SI and Firm Priority 1 only gas Service under Rate Schedules LC and T shall be adjusted by an amount designed to discount the net operating revenue and taxes contained in the Commodity rates for any volumes used as a result of the occurrence of Heating Degree Days exceeding a normal level and shall be adjusted upward by an amount designed to recover the net operating revenue and taxes contained in the Commodity rates for volumes not used as a result of the occurrence of Heating Degree Days in deficiency of a normal level.

Normal Heating Degree Days shall be those used to determine normal sales volumes in the Company's current budget and shall be determined for each District or metropolitan area using published U.S. Weather Bureau data, or otherwise best available weather data, normalized on 39 years of Birmingham Heating Degree Days for those metropolitan areas in the northern portion of the distribution system, and normalized on 39 years of Montgomery Heating Degree Days for those metropolitan areas in the southern portion of the distribution system.

Normal Heating Degree Days, so determined, are as follows:

Birmingham	2836	Montgomery	2228
Anniston	2844	Opelika	2444
Gadsden	3131	Phenix City	2305
Talladega	2851	Selma	1996
Tuscaloosa	2649	Tuskegee	2016
East Lauderdale	3284		

Degree Day Adjustment:

Volumes in excess of, or deficient of, usage associated with normal degree days shall be adjusted in the month of billing and shall be computed by multiplying the degree day variance from normal by the quotient of the actual Ccf used less the average usage of the previous summer months, July, August and September (the Base Load), divided by the actual degree days, in the form:

$$\text{Volume Ccf Adjustment} = \left[\frac{\text{Actual Ccf} - \text{Base Load Ccf}}{\text{Actual Degree Days}}\right] \times \left[\text{Normal Degree Days} - \text{Actual Degree Days}\right]$$

Temperature Adjustment Rider con't:

(N)

For Rate Schedule R customers whose Base Load cannot be accurately determined (i.e. Air Conditioning customers or customers without three months of summer usage history), a Base Load of 20 Ccf shall be used. For Rate Schedule MH, SC, SI and Firm Priority 1 customers whose Base Load cannot be accurately determined, the Base Load of zero shall be used. For all customers classified as Heat Only whose average summer usage is less than 10 Ccf, the Base Load of zero shall be used. Volume adjustments determined by the Degree Day variance shall be priced at the appropriate Temperature Adjustment rate step (below) continuous with the actual volume usage.

Temperature Adjustment Rates:

Rates used in the computation of the temperature adjustment shall be determined by subtracting from the currently effective rate the cost of gas, low income weatherization, revenue taxes contained in the base rates, and PGA adjustments, then adding the appropriate revenue taxes. Local franchise fees shall be added where applicable.

Temperature Adjustment Rates, so computed, shall be as follows and shall be adjusted by any base rate changes subsequent to October 1, 1990, plus any applicable franchise fees:

R	First 50 Ccf/CCf	.2142
	Next 150 Ccf	.1191
	Over 200 Ccf	.1002
MH	WO Dist. Sys./Ccf	.1779
	With Dist. Sys.	.2205
SC&	First 150 Ccf/Ccf	.2115
SI	Next 600 Ccf	.1464
	Over 750 Ccf	.1165
LC&T	Firm Priority 1/Mcf	1.529

HEAT UNIT ADJUSTMENT:

In the event the Btu content of the gas varies above or below 1,000 Btu per cubic foot of dry gas, the temperature adjustment charges for Firm Priority 1 Service will be adjusted by multiplying such charges by a fraction, the numerator of which shall be the monthly average of the daily average Btu content and the denominator of which shall be 1,000.

Temperature Adjustment Rider con't: (N)

TAX ADJUSTMENT RIDER:

The Tax Adjustment Rider approved by the Alabama Public Service Commission, and as amended from time to time, is applicable to this rate rider and is made a part hereof.

COMPETITIVE FUEL CLAUSE:

The Company may, but shall not be required to, agree upon rate levels for specific Consumers of Firm gas Service lower than those shown above to remain competitive with other suppliers of energy, in accordance with the procedure set out in the currently effective Sheet Nos. 52 and 53.

RATE STABILIZATION AND EQUALIZATION FACTORS:

The Rate Stabilization and Equalization Factors (RSE) tariff provision approved by the Alabama Public Service Commission, and as amended from time to time, is applicable to this rate rider and is made a part hereof.

CONSOLIDATED EDISON COMPANY OF NEW YORK

Weather Normalization Adjustment

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

OPINION NO. 89-34

CASE 88-G-229 - Proceeding on motion of the Commission as to the rates, charges, rules and regulations of Consolidated Edison Company of New York, Inc. for gas service.

OPINION AND ORDER APPROVING REVENUE REQUIREMENT SETTLEMENT AND PRESCRIBING RATE DESIGN

Issued and Effective: October 13, 1989

ratepayers. The Stipulation also provides for a weather normalization clause at least until the company's next rate case, similar to the one approved for National Fuel Gas,[1] to replace the present revenue stabilization clause.

With respect to the contested rate design issues, the recommended decision allocated the required revenue increase substantially in the manner proposed by Multiple Intervenors, namely, no increase to S.C. 2 - General, an increase to S.C. 3 - Residential Heating equal to the overall base rate percentage increase (excluding gas costs), and an above average increase to S.C. 1 - Residential Cooking to recover the balance of the required increase.

Within the classes, Judge Cohen increased the minimum charge by approximately half the dollar amount proposed by Con Edison in its filing on the basis of the substantially reduced overall revenue increase agreed to in the Stipulation.

THE SETTLEMENT STIPULATION

Stipulation Terms

A copy of the Stipulation and Agreement between staff and Con Edison, received in evidence as Exhibit 69, is

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[1] Case 88-G-180, National Fuel Gas Distribution Corporation, Opinion No. 89-22 (issued July 19, 1989).

annexed hereto as Appendix B. The Stipulation notes the difficult issues faced by the parties in reaching any agreement. The company's filing sought a 13.5% equity return; CPB and staff witnesses proposed 12.2% and 11.75%, respectively. The company proposed continuation of its revenue stabilization clause; staff proposed termination of the clause and adoption, at least until the company's next gas rate case, of a weather normalization clause; CPB opposed both the revenue stabilization clause and a weather normalization clause. Con Edison proposed continuation of its method of accounting for revenues in a manner that recognizes revenues billed on the basis of meter readings in a particular time period but does not recognize unbilled revenues for such period; staff proposed accrual of unbilled revenues on a calendar year basis, rather than a rate year basis, amortized over a 36-month period. The company proposed to continue forecasting achievable productivity gains on the basis of 1% of labor costs, even where such savings were not specifically identifiable; staff forecast productivity gains in excess of 1% on the basis of implementation of a recently completed management and operations audit of the company. CPB, unlike other parties, proposed reflection in base rates of interference-cost savings expected to result from the recent Gas Facility Cost Allocation Act.[1]

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[1] This state legislation authorizes New York City to enter into

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The Stipulation recites that, despite these differences, the parties concluded that a compromise that gives fair consideration to the interests of customers and stockholders best serves the public interest. They agreed, therefore, that on or before October 16, 1989, base gas rates should be increased by an amount to be finally established in September 1989 after July and September updates; that the revenue stabilization clause should be terminated at the time the new rates go into effect; that the company should be authorized to institute, at least until its next major gas rate case, a weather normalization clause as agreed upon by the parties; and that, apart from follow-on increases described in the Stipulation, Con Edison will not be permitted a major base gas rate increase before October 1, 1991.

More specifically, the Stipulation includes the following provisions:

Paragraph 1 - Con Edison's firm base gas rates will be increased on or before October 16, 1989, to achieve a base revenue increase calculated as shown in Appendix A to the Stipulation. That calculation starts with a revised

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agreements with gas utilities which provide service there to reimburse approximately 50% of their total interference costs associated with water and sewer construction projects. S.M. 1164.

recovery or refund in the next gas rate change after the freeze period.

Paragraph 7 - The parties note their inability to agree on an allocation of the October 1989 rate increase among service classifications, and state their intention to have the allocation issue decided as a contested matter. They identify, however, by reference to Appendix B of the Stipulation, various rate design and rate-related matters, apart from the revenue allocation issue, upon which they have reached agreement. These matters, described in more detail in Appendix B of the Stipulation, include:

1) termination of Con Edison's revenue stabilization clause;

2) adoption of a weather normalization clause applicable to all S.C. 3 (residential space heating) customers and S.C. 2 (general) customers identified as space-heating customers;

3) establishment of an interruptible sales credit for flow-through to firm customers of all net revenues from interruptible and off-system customers, except for an amount of $106,136 retained each month to amortize over five years the cost of plant related to interruptible customers;

4) adoption of a negative net salvage cap for steel and cast iron mains at 60% and 100%, respectively, of their original cost for calculating depreciation expense, with excess negative salvage amounts to be treated as an O&M expense;

5) flow-through to New York City gas customers on a per-therm basis of the net benefits of New York City reimbursement to Con Edison for gas interference costs;

BEFORE THE NEW YORK STATE
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Gas Service P.S.C. Case No. 88-G-229	:

STIPULATION AND AGREEMENT BY THE STAFF OF THE DEPARTMENT OF PUBLIC SERVICE OF THE STATE OF NEW YORK, THE CITY OF NEW YORK AND CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

On November 18, 1988, the Consolidated Edison Company of New York, Inc. ("Con Edison") filed with the Public Service Commission ("the Commission") an application to increase gas rates by about $46.7 million. This Stipulation is entered into to resolve the revenue-requirement issues raised by that application.

Con Edison's firm base gas rates were last increased in a major gas rate proceeding on November 28, 1985, pursuant to the Commission's Opinion No. 85-22 in Case 28954. Following the major gas rate increase authorized in 1985, Con Edison entered into a gas rate moratorium agreement that will expire September 30, 1989.

productivity as approximating one-percent of labor costs, even in cases where such savings were not specifically identifiable.

The testimony of the Commission Staff, on the other hand, proposed a cost of common equity for the Company of 11.75 percent; the accrual of unbilled revenues on a calendar-year rather than rate-year basis, amortized over a 36-month period; the assumption that Con Edison would achieve productivity in excess of one-percent on an annual basis as a result of implementation of a recently-completed Commission-sponsored management and operations audit of Con Edison; and termination of the revenue stabilization clause with the adoption, at least until the next gas rate case, of a weather normalization clause. The CPB filed testimony advocating the adoption of a 12.2 percent common equity return for the Company, the termination of the revenue stabilization clause, opposition to a weather normalization clause, and the incorporation into base rates of interference-cost savings expected to result from the recent Gas Facility Cost Allocation Act.

Despite their differences, the parties, in a spirit of cooperation, have concluded that the public interest will best be served by a compromise which will further the objective of giving fair consideration to the interest of customers and stockholders alike in assuring the provision of reliable gas service at reasonable and stable rates for a significant period.

To that end, the parties have concluded that Con Edison's base gas rates should be increased in an amount to be finally established in September 1989 following the principles set forth in this Stipulation; that the Company's revenue stabilization clause should be terminated at the time the new rates go into effect; that the Company be authorized to institute, at least until its next major gas rate case, a weather normalization clause as agreed upon by the parties; and that, apart from the follow-on increases that the Company will be permitted as described in this Stipulation, the Company will not be permitted a major base gas rate increase until October 1, 1991 at the earliest. The parties were unable to resolve the revenue allocation aspects of this case in similar fashion due to the wide differences that exist on these issues among the parties.

The Agreement

Accordingly, subject to the approval of the Commission, the parties agree:

APPENDIX B

Miscellaneous Rate Changes

In addition to the method for calculating the base revenue increase to take effect in October 1989, the parties have reached agreement on several other rate and rate-related issues not directly affecting the level of the revenue increase or the allocation of revenue requirement among the classes. These are:

a) Con Edison's revenue stabilization clause will be terminated with the effective date of the new rates, and any balances remaining in the clause, whether positive or negative, will be carried over to the interruptible sales credit mechanism, discussed in paragraph (c) below.

b) The new rates will include a provision for weather normalization. The provision, which will apply to all SC 3 (residential space heating) customers and to SC 2 (general) customers identified as space-heating customers, will operate in the months of October through May and reflect the weather pattern for each billing cycle of the month, thereby incorporating the immediate effect of the weather on the customer's ge 1

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CONSOLIDATED EDISON COMPANY OF NEW YORK

Weather Normalization Adjustment

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

OPINION NO. 89- 34

CASE 88-G-229 - Proceeding on motion of the Commission as to the rates, charges, rules and regulations of Consolidated Edison Company of New York, Inc. for gas service.

OPINION AND ORDER APPROVING REVENUE REQUIREMENT SETTLEMENT AND PRESCRIBING RATE DESIGN

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BEFORE THE NEW YORK STATE
PUBLIC SERVICE COMMISSION

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Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Gas Service

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NATIONAL FUEL GAS DISTRIBUTION COMPANY
(NEW YORK)

Weather Normalization Clause

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

OPINION NO. 88-13

CASE 29679 - Proceeding on motion of the Commission as to the rates, charges, rules and regulations of National Fuel Gas Distribution Corporation for gas service.

OPINION AND ORDER DETERMINING REVENUE REQUIREMENT AND RATE DESIGN

Issued and Effective: July 18, 1988

Weather Normalization Clause

NFG proposed the establishment of an automatic adjustment clause that would operate to maintain its net revenues from sales to weather-sensitive customers at the level associated with normal heating season weather. Following a colder-than-normal winter, the company would refund to those customers some of the net revenues it collected from them to the extent that they exceeded "normal" projected net revenues. On the other hand, following a warmer-than-normal winter, such customers would be surcharged to recover the corresponding underrecovery of net revenues.

Judge Furlong rejected NFG's proposal, concluding, once again, that adoption of such a clause would lessen the company's incentive to control its operating costs. He concluded also that the clause's operation might lead to customer relations problems if, for example, a warm-weather surcharge were loaded on gas rates during an ensuing heating season in which the weather turned out to be colder than normal.

NFG excepts to the Judge's recommendation. The company denies that adoption of a weather normalization clause would impair either its incentive to control operating costs or its customer relations, arguing that there is no evidence that The Brooklyn Union Gas Company, the only straight-gas utility that currently has such a tariff provision, has experienced such problems. That being the case, the company contends (at considerable length), our refusal to adopt such a provision for it would violate its constitutional right to equal protection of the law.

Staff and CPB oppose NFG's exception. Staff points out that eight other straight-gas utilities do not have such adjustment clauses. CPB argues that adoption of a weather normalization clause would be tantamount to requiring that customers with weather-sensitive loads become the guarantors of a stable earnings stream.

The considerations governing the disposition of NFG's proposed modification to the symmetrical sharing mechanism do not apply to this issue. The weather normalization clause would not operate to maintain a particular earnings target; rather, it would simply stabilize revenues (and customer bills) by moderating the influence of weather.[1] NFG will be permitted to implement such a clause on a trial basis, provided that it is modified in an acceptable fashion to "normalize" bills within a heating season (and thus stabilize customers' expenditures and company revenues) rather than during the following year. The company shall confer with staff and submit a revised proposal that would take effect before the beginning of the 1988-1989 heating season.

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[1] For this reason, the company's proposal to tie an arbitrary reduction to its projected cost of equity to the adoption of a weather normalization clause makes no sense.

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

OPINION NO. 89-22

Case 88-G-180 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of National Fuel Gas Distribution Corporation for Gas Service.

OPINION AND ORDER DETERMINING
REVENUE REQUIREMENT AND RATE DESIGN

Issued and Effective: July 19, 1989

block, enhancing revenue stability in the face of weather fluctuations. On the other hand, the company's Weather Normalization Clause, which we are retaining (see infra), militates against the need for such a large minimum charge increase. Considering all the pertinent factors, it is appropriate to continue the past practice of increasing minimum charges by twice the overall percentage increase.

Weather Normalization Clause

In Case 29679, we approved a weather normalization clause (WNC) on a one-year trial basis, while directing NFG to come forward with a modification to normalize bills within a given heating season rather than deferring weather adjustments to prospective 12 month periods. In compliance, the company did present here a properly revised WNC.

Staff and CPB had urged termination of the weather normalization clause. Judge Robinson declined to recommend its termination, but did endorse some staff and CPB proposals for modifying the WNC.

CPB, on exceptions, renews its plea for termination of the WNC.[1] The Board, joined by staff, also takes exception to the Judge's rejection of a 25-basis-point equity

[1] Staff, though warning of "significant regulatory and public relations consequences" from the WNC, apparently declines to press an exception.

return adjustment associated with the WNC. And NFG objects to the WNC modifications proposed by the Judge.

Judge Robinson voiced partial agreement with the WNC's opponents. He deemed the WNC "clearly a regulatory anomaly,"[1] seeing no sense in charging higher prices, discouraging usage, during warm weather when demand is already dampened, and conversely charging lower prices during periods of heightened demand. Also, while he thought staff went too far in warning that the WNC would make the company "fat and happy," he agreed that the clause at least serves to virtually guarantee a certain revenue level, which he considered both conceptually and in practical terms a significant step toward guaranteeing a rate of return, contrary to fundamental regulatory principles.

On the other hand, though, he recognized that a utility selling only gas is subject to fairly dramatic revenue swings due to weather fluctuations. This led him to endorse continuation of the WNC as modified by a CPB proposal to allow the clause to operate only when the variance from normal weather exceeds a standard deviation. He explained that when NFG's revenues in fact behave like those of other types of utilities, fluctuating within only narrow limits, the WNC would be dormant, coming into operation only when the

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[1] R.D., p. 133.

situation for which it was conceived actually arises, that is, a sizeable weather deviation. Judge Robinson felt this compromise would preserve the beneficial "fail safe" aspect of the WNC while avoiding, most of the time, its distasteful characteristics.

The Judge also agreed with CPB that the clause should operate only in the winter heating period, because weather flucatuations at other times should not have a serious impact on company revenues. He agreed with staff that the WNC should appear on bills in such a way that customers can make reasonable sense of them, and directed the company to work with staff to develop a satisfactory system for monitoring the correctness of WNC adjustments.

Finally, Judge Robinson agreed with the CPB that the WNC should apply to all customers whose consumption is partly weather sensitive; indeed, he saw no reason why the clause should be limited to weather sensitive customers at all. He said that to the extent weather-related revenue instability is a problem for which a rate structure solution is in order, that remedy should be applied to all customers, rather than singling out any particular group, which would also serve to ameliorate the improper price signals involved. The Judge called upon the company to present in its brief on exceptions a rational delineation of which customer groups should be exempt from the WNC and why.

CPB says that while the Judge's proposed modifications to the WNC are salutary, they cannot remedy its fundamental flaws. The Board says that the Judge was right to describe the clause as a regulatory anomaly which makes no sense from the standpoint of economics, and hence asserts that the appropriate course is to abolish the WNC.

Staff opposes CPB's move for immediate abolition, saying that the WNC is supposed to be revenue neutral, but that if it is abolished now, ratepayers will have paid $2.5 million. Staff suggests that if anything, instead, the WNC should be phased out at such point as it turns revenue neutral.

The company says that the arguments against the WNC disregard the long history of a WNC at the Brooklyn Union Gas Company without any problems. NFG notes that its WNC was, as staff says, approved only on a trial basis; but the company asserts that a trial implies evidence and a verdict, and that no evidence was presented showing that the WNC has failed in its trial run.

NFG meanwhile objects to the Judge's recommended modifications to the WNC.

First, NFG sees no basis in this record to support his assumption that its revenues behave like those of other utilities as long as weather is within one standard deviation of normal. The company observes that one standard deviation is equivalent to a 68% probability of expected weather, and asserts that actual weather falling within this band would have a significant impact on revenue and earnings. NFG calculated the deviation from normal weather that one standard deviation would represent for each heating season month: 16.9% for November, 9.0% for December, 11.0% for January, 8.8% for February and 13.4% for March. Under the Judge's approach, weather deviations of lesser magnitude would not inspire any WNC adjustments. But NFG says that the effect of much smaller percentage deviations from past earnings has been dramatic. The company presents, for 1980-88, the percentage deviation from normal weather (ranging from minus 10.8% to plus 4.5%) and its earned equity returns (ranging from 10.3% to 17.0%), from which information the company asserts that weather swings within the standard deviation have produced significant effects on revenues and hence earnings.[1]

CPB answers that NFG's 1980-88 figures are not the whole story, and that equity returns were relatively low in 1978 and 1979 despite colder than normal weather. The Board calculates only a very weak correlation between weather

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[1] The company does concede that the relationship between weather and earnings is not one-to-one, and also that its figures reflect the earnings of the parent, which include more than just utility operations.

variations and earnings. In any event, the Board says that the WNC is not intended to maintain a particular earnings target, but rather, simply to stabilize revenues.

NFG also endeavors to show how the operation of Judge Robinson's recommended WNC would have contrasted with the operation of the actual WNC thus far through April 1989. In its first winter heating season, the clause produced surcharges of $2,449,751. However, only the months of January and February exceeded the standard deviation, which would have meant surcharges totalling $4,872,452, not offset by any refunds in the other months, because the weather deviations in the other months were less pronounced.

CPB faults the company for using extra record information in its argument here, failing even to indicate the period used in the computation, much less providing the underlying calculations. CPB also says that the point of its proposals, and the Judge's, was not to produce the lowest charge to consumers in any one year, but to further the goal of stabilizing revenues and customer bills. CPB recognizes that the modified WNC in any year might produce higher or lower total surcharges than the present WNC; and other years might show a situation the reverse of what the company portrayed for the past year. CPB further argues that under its original proposal, not the Judge's modified version of it, the surcharge would have been less than either the Judge's version or the current WNC.

The company also deems it unclear that the requisite data even exist to implement the Judge's recommendation. NFG explains that a calculation of the standard deviation would have to be done for each billing cycle, information for which exists only back to 1976, whereas information back to 1961 is used for weather normalization more generally. Thus, NFG says there would be an obvious mismatch.

As to the Judge's suggestion that all customer classes should be subject to the WNC, the company says that its "weather normalization procedures for rate case purposes do not recognize customers whose consumption exceeds 25,000 Mcf/year because they are not primarily heat sensitive." NFG says that boiler fuel customers and transportation customers would necessarily be exempt as well, hence the WNC applies only to residential and general service customers.

CPB casts the company as simply restating its position that the WNC should apply only to weather sensitive customers, and providing no justification for its failure to comply with the Judge's directive. CPB asserts that if the WNC is retained, all customer groups consuming during a weather sensitive period should be subjected to the clause, as the Judge recommended.

We are in general agreement with the Judge. Despite the WNC's drawbacks, there are important reasons for

...ertheless adopting it for a gas-only utility, as he explained. The clause has worked satisfactorily for Brooklyn Union, and indeed, for NFG itself in its trial period, and we find no arguments raised that would warrant its abolition.

In addition, the "dead band" proposal may have merit, to limit the WNC's applicability to the times when it is really called for, while avoiding small and unnecessary bill adjustments at other times. However, the company's showing suggests that the dead band proposed by CPB and endorsed by the Judge may confine the WNC too severely. Accordingly, we opt for a dead band based on one-half of a standard deviation. It should be possible to work out a satisfactory program for implementing this.

We agree with CPB that NFG failed to substantively answer the Judge's call for an explanation as to why some customer classes should be exempt from the WNC; and there is merit in his analysis seeing no reason why the WNC should not apply to all customers. Accordingly, we direct that the clause apply to all customers (except boiler fuel and transportation customers, whom we assume the Judge did not mean to include).

Finally, as noted, staff takes exception to the Judge's rejection of a 25-basis-point adjustment to the equity return to reflect reduced risk associated with implementation of the WNC. The Judge reasoned that even if the WNC did reduce NFG's risk, and hence its equity cost by 25 basis points, investors are now aware of the WNC and would surely have by now factored its implications into their stock evaluations, so that the equity cost as measured by the market today should already be 25 basis points lower than it otherwise would have been.

Staff deems this reasoning incorrect because the WNC was approved only on a trial basis, so that unsophisticated investors would not even know about it and sophisticated investors would be aware of the controversy still surrounding it. Staff meanwhile points to the Judge's acknowledgment that the WNC would serve to virtually guarantee the company a certain revenue level, and from this staff argues that the benefit is likely to be 50 to 100 basis points. Given the large benefits to the company, staff suggests that fundamental fairness and equity dictate ratepayers receiving at least some token one-time benefit.

The company in reply cites not only the testimony of its own witness that, to the extent there has been a risk reduction attributable to the WNC, it has already been reflected by investors, but also the testimony of staff's own witness Capers to similar effect.

The Judge resolved this issue correctly; we deny staff's exception.

OPINION NO. 90-20

CASE 89-G-179 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of National Fuel Gas Distribution Corporation.

OPINION AND ORDER DETERMINING
REVENUE REQUIREMENT AND RATE DESIGN

Issued and Effective: July 19, 1990

Three of the remaining four recommendations have been incorporated for further consideration in an ongoing management and operational audit which began in 1989. Finally, staff advised that implementation of the remaining recommendation is being tracked by the Utility Management Audit Section as part of its Work Force System Management Audit.

The company's and staff's presentations show that the company has properly responded to 65 of 69 of the recommendations of the last management and operations audit. Moreover, implementation of the remaining four recommendations is being monitored by staff in connection with current audit work. While it cannot be concluded that implementation of all 69 recommendations is complete, the four remaining recommendations are being pursued reasonably by staff and the company.

Weather Normalization Clause

The company's tariff contains a Weather Normalization Clause (WNC) to stabilize its net revenues from sales when temperatures in the five coldest months, November through March, are unseasonably high or low. The WNC was approved on a trial basis in 1988[1] and last year the WNC was modified so that it triggered refunds only in periods when it

[1] Case 29679, supra, Opinion No. 88-19, mimeo pp. 11-12.

is 2.2% or more colder than average--2.2% being one-half of the standard deviation from average temperatures--and surcharges in periods only when it is 2.2% or more warmer than average.[1]

Staff and the company initially proposed no change in the WNC in this case. CPB, however, proposed that the WNC be modified to expand the "dead band"--i.e., the range of variation within which no adjustment is made--to one standard deviation around average temperatures and to calculate refunds and surcharges by comparing actual degree days to the limit of the dead band rather than its center--proposals that would result in surcharges and credits only for a portion of the most unusual deviations from average temperatures. NFGD thereupon proposed in the alternative that the clause's applicability be expanded. Pointing to the WNCs of The Brooklyn Union Gas Company and Consolidated Edison Company, the company suggested that the dead band be reduced or eliminated and that the WNC apply for ten rather than five months. Staff proposed either that the WNC be cancelled or, alternatively, that it be modified as proposed by NFGD.

Judge Lynch pointed out that most of the arguments presented had been previously considered. Because no party

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[1] Case 88-G-180, National Fuel Gas Distribution Corporation - Rates, Opinion No. 89-22 (issued July 19, 1989), mimeo pp. 99, 105-107.

had shown any specific problem that made the existing WNC unreasonable, he recommended no change in it.

CPB excepts, contending that the WNC should be abolished or modified to mitigate its most egregious shortcomings by minimizing the circumstances when refunds or surcharges would be warranted and thus allocating to the company's stockholders a greater share of the risks of non-average temperatures. The company opposes CPB's exception and supports the recommended decision. It adds that if any modifications are in order, the WNC should operate to offset the revenue effects of all non-average temperatures.

CPB has not even attempted to dispute the careful discussion of this issue in the recommended decision and, thus, has offered no basis on exceptions for modifying the Judge's recommendations. Its exception is denied.

Moreover, we agree with the company that there is no good reason to limit this clause to five winter months while similar clauses for downstate utilities, are effective for eight months of each year. Therefore, the company will be permitted to modify its tariff to expand its applicability to eight months. The clause in all other respects should continue to operate as it now does, for none of the other suggested changes have been shown to be improvements.

(Fourth Revised Leaf No. 46C Cancelled)

GENERAL INFORMATION

19. Weather Normalization Adjustment

The rates for gas service to all customers under Service Classification Nos. 1, 3, 7, 14, 19 and 21 shall be subject to a Weather Normalization Adjustment to reflect the impact of degree day variations from normal levels, as determined on a revenue month basis, for the months of November through March, inclusive.

The weather normalization adjustment will only be billed if the variance from normal weather exceeds one-half standard deviation as computed by the Company. This adjustment will be made to normal weather for billing purposes.

The monthly volume deviation shall be computed for each billing period for which adjustment is made using the formula described below. The weather adjustment is made by adding to or subtracting from the customer bill the amount determined by multiplying the customer's consumption during the billing period by the weather adjustment factor.

$$WA = \frac{(R * DDF \ (NDD - ADD))}{(BL + (DDF * ADD))}$$

where, WA - Weather Adjustment factor, $/Mcf
DDF - Average degree day factor, Mcf/degree-day
BL - Average base load, Mcf
ADD - Actual degree days for the billing period
NDD - Normal degree days for the billing period
R - Tailblock margin by service class

MONTH	DEGREE DAY FACTOR
OCTOBER	.01192
NOVEMBER	.01610
DECEMBER	.01754
JANUARY	.01900
FEBRUARY	.01871
MARCH	.02011
APRIL	.01922
MAY	.01764

Service Classification	Average Baseload, BL
All Applicable	4.153

UNITED CITIES GAS COMPANY

Weather Normalization Adjustment

OCT 15 1990

COMMISSIONERS:
ROBERT C. (BOBBY) PAFFORD, CHAIRMAN
GARY B. ANDREWS
BILLY LOVETT
CAS ROBINSON
BOBBY ROWAN

WILLIAM J. BUCKNER
EXECUTIVE SECRETARY

Georgia Public Service Commission

244 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334-5701

October 4, 1990

Mr. Gene C. Koonce, President
United Cities Gas Company
5300 Maryland Way
Brentwood, TN 37027

IN RE: United Cities Gas Company's Application for Authority to Implement a Weather Normalization Adjustment Rider Filed August 14, 1990.

Dear Mr. Koonce:

The Commission considered and approved the above cited weather Normalization Adjustment Rider as filed, effective with service on and after November 1, 1990.

The Commission's Reporting Requirements are as follows:

1. Provisions for review by Commission no later than two years, if Company has not filed a rate case prior to that time.

2. Company to maintain complete and adequate records for Staff's review. Staff will furnish Company specifics of information needed for review.

3. Revenues to be booked by:

a. Base revenues without WNR
b. Revenues from WNR
c. Total Revenues with WNR

4. Language to specify Rate Schedules applicable to WNR.

Mr. Gene C. Koonce
LETTER ORDER
Page 2

The above by action of the Commission in Administrative Session on October 2, 1990.

William J. Buckner
Executive Secretary

10-5-90
DATE

Robert C. Pafford
Chairman

10-10-90
DATE

WJB/RCP/JT/OJY

C: Consumer's Utility Counsel

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Provisions for Adjustment

The base rates per Ccf (100,000 Btu) for gas service set forth in Rate Schedules 810 and 820 applicable to residential and commercial customers of United Cities Gas Company (Company) shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment."

Definitions

For purposes of this Rider:

"Commission" means the Georgia Public Service Commission

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

Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment shall be computed to the nearest one-hundredth cent per Ccf by the following formula:

$$WNA_i = R_i \frac{(HSF_i \quad (NDD-ADD) \quad)}{(BLi + (HSFi \times ADD))}$$

Where:

i = any particular Rate Schedule 810 and/or 820 or billing classification within any such particular Rate Schedule that contains more than one billing classification.

WNA_i = Weather Normalization Adjustment Factor for the i^{th} rate schedule or classification expressed in cents per Ccf.

R_i = base rate of temperature sensitive sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

HSF_i = heat sensitive factor for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (continued)

NDD = normal billing cycle heating degree days utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

ADD = actual billing cycle heating degree days

BL_i = base load sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

Filing with Commission

The Company will file as directed by the Commission (a) a copy of each computation of the Weather Normalization Adjustment, (b) a schedule showing the effective date of each such Weather Normalization Adjustment, and (c) a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

CHATTANOOGA GAS COMPANY

NASHVILLE GAS COMPANY

UNITED CITIES GAS COMPANY

Weather Normalization Adjustment

BEFORE THE TENNESSEE PUBLIC SERVICE COMMISSION
NASHVILLE, TENNESSEE

SEP 26 1991

IN RE: PETITION OF CHATTANOOGA GAS COMPANY, NASHVILLE GAS COMPANY, A DIVISION OF PIEDMONT NATURAL GAS COMPANY, INC., AND UNITED CITIES GAS COMPANY FOR A RULEMAKING HEARING TO ADOPT A WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER.

DOCKET NO. 91-01712

ORDER

This matter is before the Commission upon the Joint Petition of Chattanooga Gas Company (Chattanooga), Nashville Gas Company a division of Piedmont Natural Gas Company, Inc. (Nashville), and United Cities Gas Company (United Cities) -- (jointly referred to as the LDCs) -- for a rulemaking hearing to adopt a Weather Normalization Adjustment (WNA) Rider. The Commission deems it unnecessary to approach this matter on the basis of a rulemaking. Instead, by this Order, we will authorize the WNA on a trial basis for each of the above-named companies and will direct them to file tariff sheets implementing said Rider, all as described below.

The Joint Petition of the LDCs was filed February 20, 1991. On June 25, 1991, they filed a Motion to Establish a Procedural Schedule. This Motion was presented to the Commission at its Commission Conference on July 9, 1991, at which time the Commission voted to publish the proposed rule and conduct a hearing. Thereafter, notice of a hearing to be held on September 9, 1991, was forwarded to the Executive Director of the Commission under date of July 24, 1991. Said notice was submitted to the Secretary of State on July 30, 1991, and was duly published in the August, 1991 Tennessee Administrative Register. A further public notice was issued by the Executive Director under date of August 27, 1991.

Thereafter, this matter came on for hearing on September 9, 1991, at which time the following appearances were entered:

Jack M. Irion
James L. Bomar, Jr.
Bomar, Shofner, Irion & Rambo
P.O. Box 129
Shelbyville, TN 37160

Appearing on behalf of
United Cities Gas Company

Jerry W. Amos
Brooks, Pierce, McLendon, Humphrey &
Leonard
P.O. Drawer U
Greensboro, North Carolina 27402

Leslie B. Enoch, II
Senior Vice President and
General Counsel
Nashville Gas Company
665 Mainstream Drive
Nashville, TN 37228

Appearing on behalf of
Nashville Gas Company

William L. Taylor, Jr.
Spears, Moore, Rebman & Williams
Eighth Floor, Blue Cross Building
Chattanooga, TN 37402

Appearing on behalf of
Chattanooga Gas Company

D. Billye Sanders
Assistant General Counsel
Tennessee Public Service Commission
460 James Robertson Parkway
Nashville, TN 37243-0505

Appearing on behalf of
the Commission Staff

There were no other appearances on behalf of any person, nor were there any public witnesses or other interested persons at the hearing. At the hearing the LDCs introduced the direct testimony of Gene C. Koonce on behalf of United Cities, John H. Maxheim on behalf of Nashville, Kenneth A. Royse on behalf of Chattanooga, and the direct and rebuttal testimony of Dr. H. Edwin Overcast on behalf of all of the LDCs. Also introduced as exhibits were (1) the proposed rule, (2) the Petition for Rulemaking, (3) the qualifications of Dr. Overcast, and (4), (5), and (6) explanatory schedules attached to the direct testimony of Dr. Overcast. The pre-filed testimony of Hal Novak on behalf of the Staff, was also included in the record. A memo from Kate Tallmadge of the Staff, explaining that the New York Department of Public Service has a computer connection to the billing systems of large New York utilities on a read-only basis was later introduced as exhibit 7.

Following the introduction of said testimony and exhibits the Commission indicated its willingness to implement the WNA on a trial basis, subject to addressing the concerns of the Staff. The LDCs and the Staff were instructed to discuss the matter further and to submit proposals for such trial implementation.

This matter came on to be further heard at the Commission Conference of September 17, 1991, at which time the Commission reviewed the proposals of the LDCs and the Staff. Based upon said review and the testimony and exhibits previously discussed, the Commission finds that it is reasonable, proper and in the public interest for the Weather Normalization Adjustment Rider to be implemented by the LDCs on a trial basis. Each of the LDCs is authorized and directed to file tariff sheets adopting the WNA Rider attached to this Order as Exhibit 1. The WNA Rider may become effective November 1, 1991, for the first year and on October 1 in each subsequent year. The implementation of this program shall be effective on a trial basis for a period of three years from and after the aforementioned initial effective date.

This program shall be subject to the continuing review of the Commission and its Staff. In order to assist the Commission and its Staff in reviewing this program, the LDCs will furnish the following information for each billing cycle to which the WNA Rider is applied: (1) the WNA factor for each applicable rate schedule; (2) a monthly summary, cycle-by-cycle, in the form of Exhibit 6 (Schedule 3 to the direct testimony of Dr. Overcast); (3) bill calculation programs for each company so as to enable the Staff to calculate bills given actual usage and the WNA factors. Said programs shall be in an appropriate software format (Lotus 1-2-3, version 2.3); and (4) daily actual degree days.

The LDCs have agreed and the Commission further orders that the annual audit conducted by each company's independent auditors shall include a review of the WNA adjustments in accordance with normal auditing procedures.

IT IS THEREFORE ORDERED:

1. That each of the above-named LDCs be and is hereby authorized to file tariff sheets adopting the WNA Rider attached to this Order as Exhibit 1.

2. That said Rider shall be made effective November 1, 1991, for the first year and on October 1 in each subsequent year. The program shall be implemented on a trial basis for a period of three years from and after the initial effective date.

3. That each LDC shall furnish to the Commission Staff the information set forth in the body of this Order.

4. That the annual audit conducted by each company's independent auditors shall include a review of the WNA adjustments in accordance with normal auditing procedures.

5. That any party aggrieved with the Commission's decision in this matter may file a Petition for Reconsideration with the Commission within ten (10) days from and after the date of this Order.

6. That any party aggrieved with the Commission's decision in this matter has the right of judicial review by filing a Petition for Review in the Tennessee Court of Appeals, Middle

Section, within thirty (30) days from and after the date of this Order.

CHAIRMAN

COMMISSIONER

ATTEST:

COMMISSIONER

EXECUTIVE DIRECTOR

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Provisions for Adjustment

The base rate per therm/Ccf (100,000 Btu) for gas service set forth in any Rate Schedules utilized by the Commission in determining normalized test period revenues shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment."

Definitions

For purpose of this Rider:

"Commission" means the Tennessee Public Service Commission

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

Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment shall be computed to the nearest one-hundredth cent per therm/Ccf by the following formula:

$$WNA_i = R_i \frac{(HSF_i \quad (NDD-ADD) \quad)}{(BL_i \quad + \quad (HSF_i \quad \times \quad ADD)}$$

Where

i = any particular Rate Schedule or billing classification within any such particular Rate Schedule that contains more than one billing classification

WNA_i = Weather Normalization Adjustment Factor for the i^{th} rate schedule or classification expressed in cents per therm/Ccf

R_i = weighted average base rate (base rate less any embedded gas cost) of temperature sensitive sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (Continued)

HSF_i = heat sensitive factor for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

NDD = normal billing cycle heating degree days utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

ADD = actual billing cycle heating degree days

BL_i = base load sales for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

Filing with Commission

The Company will file as directed by the Commission (a) a copy of each computation of the Weather Normalization Adjustment, (b) a schedule showing the effective date of each such Weather Normalization Adjustment, and (c) a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

ELIZABETHTOWN GAS COMPANY

Weather Normalization Clause

AGENDA DATE: 9/11/91

State of New Jersey
Board of Regulatory Commissioners
Two Gateway Center
Newark, N.J. 07102

GAS

IN THE MATTER OF THE PETITION OF ELIZABETHTOWN GAS COMPANY FOR APPROVAL OF INCREASED BASE TARIFF RATES AND CHARGES FOR GAS SERVICE AND OTHER TARIFF REVISIONS	)))))	ORDER ADOPTING INITIAL DECISION BPU Docket No. GR90121391J OAL Docket No. PUC00167-91N

(SERVICE LIST ATTACHED)

BY THE BOARD:

On December 14, 1990, Elizabethtown Gas Company ("ETG") or "Petitioner"), pursuant to N.J.S.A. 48:2-21 and N.J.A.C. 14:1-6.16, petitioned the Board of Public Utilities predecessor agency of the Board of Regulatory Commissioners ("Board"), for authority to increase its rates for gas service by $11,522,000, on an annual basis. This represented a percentage increase of approximately 4.9% over present *pro forma* revenues.

The matter was transmitted to the Office of Administrative Law (OAL) and was assigned to Administrative Law Judge (ALJ) William Gural. The Board issued its first Suspension Order suspending the effective date of the proposed rate increase in this matter on January 18, 1991. The Board issued a second Suspension Order on April 30, 1991. The New Jersey Industrial Energy Users (NJIEU) and Energy Marketing Exchange, Inc. (EME) intervened and participated in the proceeding.

A prehearing conference was held on January 25, 1991 in front of Administrative Law Judge William Gural. Upon proper notice, public hearings were held in the matter in Flemington on March 18, 1991 and Rahway on March 20, 1991. Evidentiary hearings were held in Newark on May 1, 2, 3 and 6 and June 17, 18, 19 and 20.

During the course of the proceedings, Petitioner filed updated information reflecting actual and *pro forma* operating results for the test year ending April 30, 1991. The updated information calculated a revised revenue requirement of $7.481 million over *pro forma* revenues.

The parties to the proceeding engaged in settlement negotiations, and as a result of those negotiations, the Petitioner, Rate Counsel and Board Staff have reached agreement as to the revenue requirement and tariff design issues, and have executed the attached stipulation. Although NJIEU and EME did not sign the stipulation, they have represented that they do not oppose the settlement.

On September 6, 1991, ALJ Gural issued an Initial Decision recommending adoption of the stipulation executed by the parties, finding that the parties have voluntarily agreed to the settlement, and that the settlement fully disposes of all issues in controversy and is consistent with the law.

The stipulation provides for a decrease in annual revenues of $500,000, a decrease of 0.21% from present pro forma revenues. This decrease is predicated on a net rate base of $184,243,000 and on an overall rate of return of 11.31%, which includes a return on common equity of 12.4%.

The parties have agreed that a decrease in base rates of $500,000 will be implemented in this proceeding. The decrease will be allocated to all consumption blocks of all firm rate classes on an across-the-board basis. There will be no decrease to the customer or demand charges of any firm rate class.

The significant items included in this stipulation are as follows:

1. Coal-Tar Cleanup Related Costs - ETG will be permitted to utilize full deferred accounting for coal-tar cleanup related costs. In addition, Petitioner will be permitted to amortize its test year end level of deferred coal tar expenditures at the rate of $130,000 per year. To the extent ETG receives any reimbursement from insurers or other third parties of its coal-tar cleanup related costs, such reimbursements will be credited to the deferred account.

2. Early Retirement Costs - ETG will be permitted to defer the unamortized costs of its early retirement program as of June 30, 1991, amounting to $943,000. These costs will be amortized over the same period that is being used for the amortization of the unrecognized net asset (transition credit) at the date of the initial application of Financial Accounting Standard No. 87, related to the surplus funding status of the Petitioner's retirement plan. This amortization period currently extends through September 30, 2001.

3, Strike Costs - ETG experienced a 26-day strike from November 21, 1990 until December 17, 1990 when its 303 collective bargaining unit employees maintained a work stoppage. ETG will be permitted to amortize over a 10-year period, $619,000 of strike related expense associated with maintaining security during the strike. Net additional expenses for non-union compensation and other expenses incurred during the strike amounting to $570,000 are being absorbed by the Petitioner's investors. The unamortized balance of the recoverable costs shall not be reflected in rate base.

4. Customer Information System (CSS) - ETG will be permitted to amortize $251,000 per year of costs related to the implementation of its CSS.

5. Injuries and Damages Expense - The stipulated revenue requirement reflects Petitioner's test year level of injuries and damages expense of $377,000.

6. Allowance For Funds Used During Construction (AFUDC) - ETG will be permitted to accrue AFUDC prospectively in accordance with the methodology described in the Uniform System of Accounts adopted by the Board.

7. Consolidated Tax Savings Adjustmet - The stipulated net rate base of $184,243,000 includes a deduction of $3.232 million to reflect an adjustment for consolidated tax savings resulting from the fact that Petitioner files a consolidated Federal income tax return with NUI Corp., (NUI), its parent company. The deduction of $3.232 million represents a level of consolidated tax savings realized by NUI in 1989 and 1990.

8. Weather Normalization Clause - ETG will be permitted to implement a weather normalization clause as more fully described in the tariff sheets attached to the stipulation as Appendix A. It is the intent of the parties that the weather normalization clause be implemented on an experimental basis for a minimum period encompassing two full heating seasons (1991-1992 3 and 1992-1993). The weather normalization clause will be reviewed in the first base rate or LGAC proceeding filed during or after the 1992-1993 heating season, but not before June 1, 1991. Such review will include, inter alia, an assessment of the impact of the clause on the Residential Service No-Heat sub-class. The parties acknowledge that, after such review, the Board may determine to continue, amend, modify or discontinue the weather normalization clause. ETG has agreed to provide the parties with an interim report by no later than February 1 of each heating season, and a final report by no later than June 1 following the conclusion of each heating season, describing the operation of the weather normalization clause during such heating season. Such reports will also include load data.

9. Other Tariff Changes - ETG shall be permitted to implement its tariff change proposals to (1) allow the Petitioner the flexibility to negotiate sales or transportation contracts under its CSF tariff and (2) increase its charge for imbalances

paid by brokers and marketers from one cent per therm to two cents per therm. These tariff changes are set forth in the tariff sheets which are attached to the stipulation.

The Board has reviewed both ALJ Gural's Initial Decision and the stipulation of the parties and finds them to be reasonable, in the public interest, and in accordance with the law. The Board HEREBY ADOPTS the Initial Decision of ALJ Gural and the attached stipulation of the parties as its own, incorporating by reference their terms and conditions as if fully set forth at length herein.

In approving the weather normalization clause, the Board wishes to emphasize that this is being done on a two year experimental basis and the results will be carefully monitored by the Staff and reviewed by the Board. The results will also be subject to audit by Board Staff. The Board wishes to emphasize that the weather normalization clause is tied to the differences between actual and normal weather during the preceding winter period based solely upon degree days. The Board also notes that the stipulation provides that the operation of the weather normalization clause will be subject to an earnings test and that the clause will not allow the Petitioner to recover any portion of a margin revenue deficiency that will cause the Petitioner to earn in excess of its allowed rate of return on common equity of 12.4% for the annual period.

Petitioner has submitted the attached proposed tariffs which conform to the terms and conditions of the stipulation. The Board has reviewed these tariff pages and HEREBY FINDS them to be consistent with the terms of the stipulation. The Board HEREBY ACCEPTS these tariff pages, effective for service rendered as of the date of this Order.

DATED: September 30, 1991

BOARD OF REGULATORY COMMISSIONERS
BY:

Edward H. Salmon

DR. EDWARD H. SALMON
CHAIRMAN

Jeremiah F. O'Connor

JEREMIAH F. O'CONNOR
COMMISSIONER

Carmen J. Armenti

CARMEN J. ARMENTI
COMMISSIONER

ATTEST: Chrys Wilson

CHRYS WILSON
SECRETARY

[PRIVILEGED AND CONFIDENTIAL]

STATE OF NEW JERSEY
BOARD OF REGULATORY COMMISSIONERS

In the Matter Of the Petition Of Elizabethtown Gas Company For Approval Of Increased Base Tariff Rates And Charges For Gas And Other Tariff Revisions	:	BPU Dkt. No. GR 90121391J OAL Dkt. No. PUC-167-91

Stipulation

I. Background Statement

On December 13, 1990, Elizabethtown Gas Company (Elizabethtown or Company) filed a petition with the Board of Public Utilities, predecessor agency to the Board of Regulatory Commissioners (Board) seeking an increase in the Company's base tariff rates of approximately $11.522 million or 4.9% to become effective January 13, 1991. By Order dated January 18, 1991, the Board suspended the Company's proposed rate increase until May 13, 1991. By subsequent Order issued April 30, 1991, the Board further suspended the proposed increase until September 13, 1991.

The Company's filing, which was based on a test year consisting of the twelve months ended April 30, 1991, was accompanied by the testimony of eleven witnesses. After several updates to reflect the latest known information, and the enactment of L. 1991, c. 184, amending the Taxation of Certain Public Utilities Laws of 1940 (NJSA 54:30A-18, et seq.), the Company's request for rate relief was reduced to $7.481 million.

the Uniform System of Accounts adopted by the Board.

F. Consolidated Tax Savings Adjustment. The parties agree that the Company's rate base as set forth in Section II.A. above reflects a deduction of $3.232 million to reflect an adjustment for consolidated tax savings resulting from the fact that Elizabethtown files a consolidated Federal income tax return with NUI Corp., its parent company. The deduction of $3.232 million represents a level of consolidated tax savings realized by NUI in 1989 and 1990.

G. Weather Normalization Clause. The parties agree that the Company shall be permitted to implement a weather normalization clause as more fully described in the tariff sheets attached hereto as Appendix A. It is the intent of the parties that the weather normalization clause be implemented on an experimental basis for a minimum period encompassing two full heating seasons (1991-1992 and 1992-1993). The parties further intend that the weather normalization clause be reviewed in the first base rate or LGAC proceeding filed during or after the 1992-1993 heating season, but not before June 1, 1993. Such review will include, inter alia, an assessment of the impact of the clause on the Residential Service No-Heat sub-class. The parties acknowledge that, after such review, the Board may determine to continue, amend, modify or discontinue the weather normalization clause. The Company agrees to provide the parties with an interim report by no later than February 1 of each heating season, and a final report by no later than June 1 following the conclusion of each heating season, describing the operation of the weather normalization clause, during such heating season. Such reports will also include load data.

H. Other Tariff Changes. The parties agree that the Company shall be permitted to implement its tariff change proposals to (1) allow the Company the flexibility to negotiate sales or transportation contracts under its CSF tariff and (2) increase its charge for imbalances paid by brokers and marketers from one cent per therm to two cents per therm. These tariff changes are set forth in the tariff sheets which are attached hereto as Appendix A.

I. Entirety of Stipulation. The parties agree that this Stipulation contains mutual balancing and interdependent adjustments, and is intended to be accepted and approved in its entirety. In the event that this Stipulation is not accepted and approved in its entirety by the Board, then any party aggrieved thereby shall not be bound by this Stipulation and shall have the right to litigate all issues addressed herein to a conclusion.

More particularly, in the event this Stipulation is not adopted in its entirety by the Board in its Order in this matter, then any party hereto is free to pursue all available legal remedies with respect to all issues addressed in this Stipulation, as though this Stipulation had not been signed.

J. General Reservation. It is specifically understood and agreed that this Stipulation represents a negotiated agreement, and except as otherwise expressly provided for herein, is intended to be binding only in this proceeding and only as to the matters specifically addressed herein. No party shall be deemed to have

RIDER "B"

WEATHER NORMALIZATION CLAUSE

APPLICABLE TO SERVICE CLASSIFICATIONS RS, GS AND MFS.

In the winter months October through April, a weather normalization rate shall be applied to the rate quoted in this Tariff under the service classifications shown above, except as may be otherwise provided for in the individual service classification. The weather normalization rate applied in each winter period shall be based on the differences between actual and normal weather during the preceding winter period. The weather normalization rate shall be determined as follows:

I. Definition of Terms as Used Herein

1. Degree Days (DD) - the difference between 65°F and the eight point average temperature for the day, as determined from the records of the National Oceanic and Atmospheric Administration (NOAA) at its weather observation station located at Newark International Airport, when such average falls below 65°F. A day is defined as a period corresponding with the Company's gas sendout day of 8 am to 8 am. The eight temperature observations for a day shall be 8 am, 11 am, 2 pm, 5 pm, 8 pm, 11 pm, 2 am, and 5 am.

2. Actual Calendar Month Degree Days - the accumulation of the actual Degree Days for each day of a calendar month.

3. Normal Calendar Month Degree Days - the level of calendar month degree days to which test year sales volumes were normalized in the base rate proceeding that established the current base rates for the service classifications to which this clause applies. The normal calendar month Degree Days used in this clause may be updated in base rate cases. The normal degree days for the defined winter period months , as of the conclusion of Docket No. GR9012-1391J, are:

		Leap Years
Oct.	265	
Nov.	548	
Dec.	912	
Jan.	1,060	
Feb.	895	923
March	718	707
April	391	382

Date of Issue:

Effective: Service rendered on and after

Issued by: Frederick W. Sullivan, Pres.
One Elizabethtown Plaza
Union, New Jersey 07083

Filed Pursuant to Order of the Board of Public Utility Commissioners dated in Docket No.

RIDER "B"
(continued)

Definition of Terms as Used Herein

4. Winter Period - shall be the seven consecutive sales and calendar months from October of one calendar year through April of the following calendar year.

5. Degree Day Dead Band - shall be one-half (½%) percent of the sum of the cumulative Normal Calendar Month Degree Days for the Winter Period.

6. Degree Day Consumption Factor - the weighted average of the variable component (use per degree day) of the gas sendout equations for the winter period months used in forecasting firm gas sendout, as adjusted for lost and unaccounted for gas. This factor may be updated in base rate cases. The current degree day consumption factor as of the conclusion of Docket No. GR9012-1391J is 40,115 therms per degree day.

7. Margin Revenue Factor - the weighted average tail block rate as quoted in the individual service classes to which this clause applies net of: Gross Receipts and Franchise Taxes, Base Gas Costs, and any adjustment from Rider "A" Levelized Gas Adjustment Clause. The weighted average shall be determined by multiplying the marginal revenue component of the tail block rate of each service class to which this clause applies by each class's percentage of total consumption of all the classes to which this clause applies for the winter period and summing this result for all the classes to which this clause applies. The Margin Revenue Factor shall be redetermined each time new base rates are put into effect. The current Margin Revenue Factor is $.1778 per therm.

8. Annual Period: shall be the 12 consecutive months from October of one calendar year through September of the following calendar year.

9. Average 13 month common equity balance: shall be the common equity balance at the beginning of the Annual Period (i.e. October 1) and the month ending balances for each of the twelve months in the Annual Period divided by thirteen (13).

RIDER "B"
(continued)

II. Determination of the Weather Normalization Rate

At the end of the Winter Period during the Annual Period, a calculation shall be made that determines for all months of the Winter Period the level by which margin revenues differed from what would have resulted if normal weather (as determined by reference to the Degree Day Dead Band) occurred.

This calculation is made by multiplying the Degree Day Consumption Factor by the difference between cumulative Normal Calendar Month Degree Days as adjusted for the Degree Day Dead Band, and cumulative Actual Calendar Month Degree Days and, in turn, multiplying the result by the Margin Revenue Factor. To the extent the cumulative Actual Calendar Month Degree Days exceeds cumulative Normal Calendar Month Degree Days as adjusted for the Degree Day Dead Band, an excess of margin revenues exist. To the extent cumulative Actual Calendar Month Degree Days were less than cumulative Normal Calendar Month Degree Days as adjusted for the Degree Day Dead Band, a deficiency of marginal revenue exists. If, at the end of the Winter Period of the Annual Period, the cumulative degree day variation from normal weather is less than the Degree Day Dead Band, the weather normalization clause will not be in effect. In addition, the weather normalization clause shall not operate to permit the Company to recover any portion of a margin revenue deficiency that will cause the Company to earn in excess of its allowed rate of return on common equity of 12.4% for the Annual Period; any portion which is not recovered shall not be deferred. For purposes of this section, the Company's rate of return on common equity shall be calculated by dividing the Company's regulated jurisdictional net income for the Annual Period by the Company's average 13 month common equity balance for such Annual Period, all as reflected in the Company's monthly reports to the Board of Public Utilities. The Company's regulated jurisdictional net income shall be calculated by subtracting from total net income (1) margins retained by the Company from non-firm sales and transportation services, net of associated taxes, (2) margins retained in the provision of sales in accordance with the Board Order pertaining to Docket No. GM90090949, net of associated taxes and (3) net income derived from unregulated activities conducted by Elizabethtown. The Company's average thirteen month common equity balance for any Annual Period shall be the Company's average total common equity less the Company's average common equity investment in unregulated subsidiaries.

Date of Issue:

Effective: Service rendered on and after

Issued by: Frederick W. Sullivan, Pres.
One Elizabethtown Plaza
Union, New Jersey 07083

Filed Pursuant to Order of the Board of Public Utility Commissioners dated in Docket No.

RIDER "B"
(continued)

The balance of margin revenue excess or deficiency at September 30 of the Annual Period shall be divided by the estimated applicable sales from the classes subject to this clause for the Winter Period over which this rate will be in effect, multiplied by a factor to adjust for increases in taxes and assessments. The product of this calculation shall be the Weather Normalization Rate. However, the Weather Normalization Rate will at no time exceed three (3%) percent of the then applicable Residential Service tail block rate. To the extent that the effect of this rate cap precludes the Company from fully recovering the margin deficiency for the Annual Period, the unrecovered balance will be added to or subtracted from the margin deficiency or margin excess used to calculate the weather normalization rate for the next Winter Period. The Weather Normalization Rate, so calculated, will be in effect for the Winter Period immediately following the Annual Period used in such calculation.

III. Tracking the Operation of the Weather Normalization Clause

The revenues billed, or credits applied, net of taxes and assessments, through the application of the Weather Normalization Rate shall be accumulated for each month of the Winter Period when this rate is in effect and applied against the margin revenue excess or deficiency from the immediately preceding Winter Period and any cumulative balances remaining from prior Winter Periods.

The annual filing for the adjustment to the weather normalization rate shall be concurrent with the annual filing for the Rider "A" Levelized Gas Adjustment Clause.

SUPPLEMENT TO RIDER "B"

WEATHER NORMALIZATION CLAUSE

Applicable to Gas Used
Under Service Classifications
RS, GS and MFS

October through April	$0.000 per therm
May through September	Not Applicable

Date of Issue: Effective: Service rendered on and after

Issued by: Frederick W. Sullivan, Pres.
One Elizabethtown Plaza
Union, New Jersey 07083

Filed Pursuant to Order of the Board of Public Utility Commissioners

PIEDMONT NATURAL GAS COMPANY, INC.

Weather Normalization Adjustment

File Copy

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. G-9, SUB 309

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	
Application of Piedmont Natural Gas Company, Inc., for an Adjustment of its Rates and Charges)	ORDER GRANTING PARTIAL RATE INCREASE

HEARD IN: Mecklenburg Criminal Court Building, Charlotte, North Carolina, on April 30, 1991; Guilford County Courthouse, Greensboro, North Carolina, on May 1, 1991; and Commission Hearing Room, Dobbs Building, Raleigh, North Carolina, on May 7-8, 1991

BEFORE: Commissioner Laurence A. Cobb, Presiding; Chairman William W. Redman; and Commissioner Robert O. Wells

APPEARANCES:

For The Applicant:

Jerry W. Amos, Brooks, Pierce, McLendon, Humphrey & Leonard, Attorneys at Law, Post Office Drawer U, Greensboro, North Carolina 27402

For The Public Staff:

David T. Drooz and Vickie L. Moir, Staff Attorneys, Public Staff - North Carolina Utilities Commission, Post Office Box 29520, Raleigh, North Carolina 27626-0520

For The Attorney General Of North Carolina:

Lorinzo L. Joyner, Assistant Attorney General, N.C. Department of Justice, Post Office Box 629, Raleigh, North Carolina 27602

For Carolina Utility Customers Association, Inc.:

Sam J. Ervin, IV, Byrd, Byrd, Ervin, Whisnant, McMahon & Ervin, P.A., Post Office Box 1269, Morganton, North Carolina 28655

291. Fixed costs and storage charges should be recovered through the revised PGA Clause on an equal volumetric basis from all customers for the reasons set forth above in the discussion of rate design.

292. The Commission concludes that the revised PGA Clause proposed by the Company should be approved on a provisional basis, as hereinabove provided, pending implementation of G. S. 62-133.4.

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293. Piedmont and the Public Staff resolved their difference as to the pro formal level of unaccounted-for volumes by stipulation. Although the Public Staff stipulated to use of the unaccounted-for volumes recommended by Piedmont, the Public Staff recommended an annual true-up of the unaccounted-for volumes.

294. Piedmont agreed to a true-up of unaccounted-for volumes if its revised PGA Clause was approved. The Commission has hereinabove approved the revised PGA Clause on a provisional basis pending implementation of G.S. 62-133.4.

295. The Commission therefore concludes that the true-up of unaccounted-for natural gas volumes should be approved on a provisional basis pending implementation of G. S. 62-133.4 and that Piedmont shall adopt deferred accounting with respect to the true-up of such volumes.

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296. The Company's earnings and rates of return and customers' bills can vary widely due to departures from normal weather.

297. Piedmont's winter period in its rate schedules is the five months of November through March.

298. Eighty-seven percent of the degree days occur during this five-month period.

299. Some Rate Schedule 103 customers are weather sensitive.

300. The Weather Normalization Adjustment (WNA) Clause will reduce variations in the Company's earnings and rates of return and in customers' bills.

301. The WNA Clause will protect both the Company and its customers from the adverse impact of departures from normal weather.

302. The WNA Clause will increase bills when customers can best absorb the adjustment during warm weather when consumption is low and will reduce bills during extremely cold periods when consumption is high.

303. The months of November through March should be included in the WNA Clause to match the winter period of Piedmont's rates.

304. Rate Schedule 103 should be included in the WNA Clause because some of the gas used under that rate schedule is weather sensitive.

305. For purposes of the WNA Clause, fixed gas costs will be allocated to the various customer classes as set forth in Schedule IV attached to the stipulation entered into between the Company and the Public Staff.

306. The Commission concludes that the WNA Clause as agreed to by the Company and the Public Staff in the stipulation is fair and reasonable and should be approved.

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307. The Company and the Public Staff stipulated to the use of a 10% interest rate, which is to be compounded monthly, for the interest to be applied to deferred account No. 253.

308. No other party introduced any evidence on this issue or questioned the use of the 10% interest rate.

309. In the absence of any evidence to the contrary, the interest rate to be applied to deferred account No. 253 agreed to by the Company and the Public Staff represents a fair and reasonable interest rate at this time.

310. The Commission concludes that a 10% interest rate, which is to be compounded monthly, is reasonable at this time for the interest to be applied to deferred account No. 253.

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311. The Company and the Public Staff stipulated to the use in this proceeding of a pro forma commodity cost of gas and initial benchmark cost of gas of $2.50 per dekatherm and that the Company can increase its benchmark price in the manner set forth in Section II A of the PGA Clause.

312. No other party introduced any evidence on this issue or questioned the use of the $2.50 cost of gas for these purposes.

313. In the absence of any evidence to the contrary, the use of a pro forma commodity cost of gas and initial benchmark cost of gas of $2.50 per dekatherm agreed to by the Company and the Public Staff is fair and reasonable.

314. The Commission concludes that the pro forma commodity cost of gas and initial benchmark cost of gas to be used in this proceeding is $2.50 per dekatherm and that the Company can increase its benchmark price in the manner set forth in Section II A of the PGA Clause. Further, with respect to the true-up of the commodity cost of gas, Piedmont shall initially use the $2.50 per dekatherm as the benchmark cost of gas.

---

up of the unaccounted-for volumes based on the actual level in June of each year. CUCA and the Attorney General presented no evidence on the unaccounted-for issue in this rate case.

Piedmont agreed that an unaccounted-for volume true-up would be proper if its version of the PGA Clause was approved. However, witness Maxheim testified that Piedmont would not stipulate to an unaccounted-for true-up without their PGA Clause, because "We simply do not believe that it is appropriate to include some gas costs in a true-up while excluding other gas costs." [T. Vol. 3, p. 82].

Since the Commission has approved the revised PGA Clause on a provisional basis pending implementation of G.S. 62-133.4, the Commission concludes that the true-up approved herein should be provisional pending implementation of G.S. 62-133.4. The Commission will reexamine the propriety and the procedure for a true-up of unaccounted-for gas volumes as part of the implementation of G.S. 62-133.4.

EVIDENCE IN SUPPORT OF FINDINGS AND CONCLUSIONS 296-306

Company witness Morris testified in support of the "Weather Normalization Adjustment" (WNA) Clause. He testified that the objective of the WNA Clause is to protect both the Company and its customers from the adverse impact of departures from normal weather. He testified that the Company's earnings and return and customers bills can vary widely due to departures from normal weather. [T. Vol. 4, p. 76].

Witness Morris performed an analysis of the impact of weather on the Company's earnings during the test period. He determined that during the months of November 1989 through March 1990 actual degree days were 2,768 as compared to normal degree days of 3,179 for the same period. According to witness Morris, this variation in degree days occurred even though the extremely cold December tempered the effects of the abnormally warm January, February, and March. He testified that the weather pattern during the test period affected customers by substantially increasing December bills and lowering January-March bills. [T. Vol. 4, p. 77].

Witness Morris testified that under the proposed WNA Clause, each customer's bill will be adjusted for weather for the particular cycle being billed. As a result, under the WNA Clause, a customer will be billed on a normal weather basis, the same basis on which rates were originally set by the Commission. [T. Vol. 4, p. 78].

Witness Morris testified that the WNA Clause produces a weather adjustment factor, expressed in cents per therm for that customer classification. The factor will be determined for each rate schedule and billing cycle based solely on the actual degree days in the billing period, compared to the normal degree days for the period. This factor is applied to the billed consumption as either an increase or decrease. It will apply to bills rendered during the months of October through May. The formula for determining the factor is as follows:

$$WNA = \frac{R \times (HSF \times (NDD-ADD))}{BL + (HSF \times ADD)}$$

Where:

WNA = Weather Normalization Adjustment factor for any particular rate schedule expressed in cents per therm.

R = Base rate (approved rate less cost of gas) for any particular rate schedule.

HSF = Heat Sensitive Factor for any particular rate schedule utilized by the Commission in determining normalized test period revenues.

NDD = Normal billing cycle heating degree days utilized by the Commission in determining normalized test period revenues.

ADD = Actual billing cycle heating degree days.

BL = Base load sales for any particular rate schedule utilized by the Commission in determining normalized test period revenues.

[T. Vol. 4, p. 78-79].

Witness Morris testified that the effect of this mechanism is to raise bills when customers can best absorb the adjustment because warm weather has resulted in reduced consumption. On the other hand, the WNA Clause operates to lower bills during extremely cold periods when consumption is high. [T. Vol. 4, p. 79].

According to witness Morris, the WNA Clause produces a weather adjustment factor for each customer classification determined to be weather sensitive. As proposed by the Company, this factor would be applied to the following rate schedules: Rate Schedule 101 - Residential Service and Rate Schedule 102 - Small General Service. [T. Vol. 4, p. 80].

Witness Morris testified that several other gas companies have had weather normalization mechanisms approved in Georgia and in New York. [T. Vol. 4, p. 80].

Public Staff witness Curtis testified that the Public Staff does not oppose the concept of the WNA Clause providing certain changes are made. He proposed to change from an eight-month to a five-month implementation period, to include Rate Schedule 103 customers in the WNA Clause and to implement a band of 5% on either side of normal weather to which the WNA Clause would not apply. He testified that Piedmont's winter period in its rate schedules is the five months of November through March and that 87% of the degree days occur during this five-month period. He also testified that Rate Schedule 103 customers are weather sensitive. [T. Vol. 6, pp. 163-165].

In the stipulation, the Company and the Public Staff agreed that the WNA Clause as filed by the Company should be approved by the Commission provided it is amended to change the implementation period from eight to five months and to include Rate Schedule 103 customers. They also agreed that for purposes of the WNA Clause, fixed gas costs will be allocated to the various customer classes as set forth in Schedule IV attached to the stipulation entered into between the Company and the Public Staff. Finally, they agreed to work together on an appropriate form to be used to meet the requirements of Section IV of the WNA Clause. [Exhibit JHM-2, p. 3, ¶ 5].

EVIDENCE IN SUPPORT OF FINDINGS AND CONCLUSIONS 307-310

The Company and the Public Staff stipulated to the use of a 10% interest rate, which is to be compounded monthly, for the interest to be applied to deferred account No. 253. No other party introduced any evidence on this issue or questioned the use of the 10% interest rate.

EVIDENCE IN SUPPORT OF FINDINGS AND CONCLUSIONS 311-314

The Company and the Public Staff stipulated to the use in this proceeding of a pro forma commodity cost of gas and initial benchmark cost of gas of $2.50 per dekatherm and that the Company can increase its benchmark price in the manner set forth in Section II A of the PGA Clause. No other party introduced any evidence on this issue or questioned the use of the $2.50 cost of gas for these purposes.

EVIDENCE IN SUPPORT OF FINDINGS AND CONCLUSIONS 315-318

The Company and the Public Staff stipulated that Piedmont would conduct a study of deferred tax reserves as recommended by the Public Staff and that the study would be completed by the time of the filing of Piedmont's next general rate case or within two years, whichever occurs later. No other party introduced any evidence on this issue.

EVIDENCE IN SUPPORT OF FINDINGS AND CONCLUSIONS 319-323

The Company and the Public Staff stipulated that Piedmont would file monthly reports in the form set forth in Exhibit II to Public Staff witness Hoard's prefiled testimony and that these monthly reports would be in lieu of the quarterly reports Piedmont currently files with the Commission unless the Commission or the Commission Staff objects to discontinuing the filing of quarterly reports. No other party introduced any evidence on this issue.

The Commission uses the quarterly information now reported by Piedmont, and the Commission objects to discontinuing the filing of the quarterly reports. With respect to the filing of monthly reports, the Commission notes that the Public Staff proposed monthly reports in order to better monitor Piedmont. The Commission will initiate proceedings in the near future in order to provide for implementation of G.S. 62-133.4. The frequency and content of reports appropriate to monitor the State's LDCs in a uniform manner is a matter best determined as the Commission implements that statute. The Commission therefore concludes that Piedmont should continue to file quarterly reports for the present, subject to determination of the appropriate reporting as noted above.

IT IS, THEREFORE, ORDERED as follows:

1. That Piedmont Natural Gas Company, Inc., be, and is hereby, allowed to increase its rates and charges so as to produce an annual level of revenue of $272,857,407 (including $986,193 of other operating revenue and assuming a $2.50 cost of gas) from its North Carolina customers based on the Company's level of test period operations. Such amount represents an increase of $9,664,433 above the level of revenues that would have resulted from rates in effect during the test period.

2. That the rates shown on Late Filed Schedule V Revised Corrected be, and the same are hereby, approved effective for service rendered on and after the date of this Order.

3. That the service regulations proposed by the Company, except as modified herein, be, and the same are hereby, approved effective for service rendered on and after the date of this Order.

4. That the revised PGA Clause proposed by Piedmont, except as modified herein, be, and the same is hereby, approved effective for service rendered on and after the date of this Order, on a provisional basis, in the sense hereinabove provided, pending implementation of G.S. 62-133.4. Any monies so collected which are associated with additional pipeline capacity and storage shall be placed in a deferred account pending further Order of the Commission.

5. That the Weather Normalization Adjustment Clause as set forth in the stipulation between the Company and the Public Staff, be, and the same is hereby, approved effective for service rendered on and after the date of this Order.

6. That Piedmont shall file appropriate tariffs, including its service regulations, PGA Clause and Weather Normalization Adjustment Clause, in accordance with the provisions of this Order, not later than ten (10) days from the date of this Order.

7. That Piedmont shall send the notice attached hereto as Appendix A to its customers as a bill insert in its next billing cycle after the date of this Order.

8. That Piedmont shall conduct a study of its deferred tax reserves by the time its files its next general rate case or within two years, whichever is later.

Applicability

Gas service under this rate schedule is available in the area served by the Company in the State of North Carolina to a residential unit which is individually metered and to governmental housing projects.

Rate

For Heating Only Customers

For all bills rendered from:

November through March $.56253 per therm.
April through October $.52253 per therm.

For All Other Customers

For all bills rendered from:

November through March $.54253 per therm.
April through October $.50753 per therm.

A "Heating Only Customer" is a customer who uses gas solely for space heating or any other customer who has not notified the Company in writing that he uses gas for purposes other than for space heating.

Facilities Charge

$8.00 for heating only and $7.00 for all other customers per meter per month excluding governmental housing authorities. The facilities charge will be prorated for customers who either begin or discontinue service during a billing cycle and, as a result, receive service for less than a full billing cycle.

Payment of Bills

Bills are due upon receipt. Bills become past due 25 days after bill date.

Rate Schedule Subject to Change

The rates, terms, and conditions set forth in this rate schedule are subject to the Special Provisions on the reverse side hereof and to change at any time and from time to time by the Company with the approval of the North Carolina Utilities Commission as provided by law.

Late Payment Charge

A late payment charge of one percent (1%) per month will be applied to all customers' balances not paid within twenty-five (25) days from the billing date.

Weather Normalization Adjustment

Bills rendered under this rate schedule shall be subject to a weather normalization adjustment as set forth in Appendix B of the Company's Service Regulations as approved by the North Carolina Utilities Commission.

:ather Normalization Adjustment

I. Provision for Adjustment

The base rates per therm (100,000 Btu) for gas service set forth in all of the rate schedules of Piedmont Natural Gas Company (Company) shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment." Such adjustment shall apply to bills rendered during the months of November through March.

II. Definitions

For the purposes of this Rider:

"Commission" means the North Carolina Utilities Commission

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

III. Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment shall be computed to the nearest one-thousandth cent per therm by the following formula:

$$WNA_i = R_i \text{ X } \frac{(HSF_i\ (NDD\text{-}ADD))}{(BL_i + (HSF_i \text{ x } ADD))}$$

Where:

i = any particular rate schedule or billing classification within any particular rate schedule that contains more than one billing classification.

WNA_i = Weather Normalization Factor for the i^{th} rate schedule or classification expressed in cents per therm.

R_i = base rate (approved rate less cost of gas) for the i^{th} schedule or classification utilized by the Commission in the Relevant Rate Order for the purpose of determining normalized test year

NORTH CAROLINA NATURAL GAS CORPORATION

Weather Normalization Adjustment Factor

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

OFFICIAL COPY

DOCKET NO. G-21, SUB 293
DOCKET NO. G-21, SUB 295

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of North Carolina Natural Gas Corporation for an Adjustment of Its Rates and Charges	)	ORDER GRANTING PARTIAL RATE INCREASE

HEARD: Thursday, September 26, 1991, at 11:00 a.m., Council Chambers, City Hall, 433 Hay Street, Fayetteville, North Carolina

Thursday, September 26, 1991, at 7:00 p.m., Assembly Room, County Administration Building, 320 Chestnut Street, Wilmington, North Carolina

Friday, September 27, 1991, at 11:00 a.m., Council Chambers, City Hall, 207 East King Street, Kinston, North Carolina

Tuesday, October 8, 1991, at 9:30 a.m., through Friday, October 11, 1991, Commission Hearing Room, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Commissioner Sarah Lindsay Tate, Presiding, and Commissioners Julius A. Wright and Allyson K. Duncan

APPEARANCES:

For North Carolina Natural Gas Corporation:

Donald W. McCoy, Alfred E. Cleveland, and Jeffrey N. Surles, Attorneys at Law, McCoy, Weaver, Wiggins, Cleveland & Raper, Box 2129, Fayetteville, North Carolina 28302

For the Public Staff:

David T. Drooz and Gisele L. Rankin, Staff Attorneys, Public Staff - North Carolina Utilities Commission, P. O. Box 29520, Raleigh, North Carolina 27626-0520 been received if the quantity of gas had been sold under the customer's regular rate.

175. The Company should record in the Deferred Gas Cost Account all additional margins earned on sales of gas to off-system entities, including Public Service Company of North Carolina. The additional margins are computed by comparing all revenue received by the Company, less the cost of gas and gross receipts taxes, to the revenue less the cost of gas and gross receipts taxes reflected for sales of gas to off-system entities included by the Commission in the cost of service in this proceeding.

176. The cost of service in this proceeding reflects $1,833,102 of revenue, $569,092 of cost of gas, and $59,026 of gross receipts taxes, for a margin of $1,204,984 related to sales of gas to off-system entities. The entire amount reflected in this proceeding includes sales of gas to Public Service Company of North Carolina, Inc.

177. The Company may negotiate with non-IST commercial and industrial customers on its sales and transportation rates to avoid the loss of deliveries to these non-IST customers. All margin loss from these customers shall be accumulated in the Deferred Gas Cost Account. Such margin loss shall be based on the Company's tariff rates.

178. The Company should true-up on an annual basis the gas costs associated with Company Use and Unaccounted For Volumes. This true-up should be computed by comparing the actual Company Use and Unaccounted For Volumes during the true-up period with the Company Use and Unaccounted For Volumes reflected in rates during the twelve-month true-up period, and multiplying the difference by the applicable Base Cost of Gas. The first annual true-up period shall be the year ending June 30, 1993.

179. The Company should maintain separate account categories for Deferred Gas Cost Account transactions that relate to (1) all customers, and (2) sales only customers.

180. The Company should analyze the balances in its present deferred gas cost accounts on a first-in, first-out basis consistent with the Commission's definition of demand and storage charges and commodity gas costs set forth in the approved PGA Procedures. This analysis should be performed concurrent with the date of this Order.

WEATHER NORMALIZATION ADJUSTMENT

181. NCNG has requested approval of a Weather Normalization Adjustment factor (WNA) which will reduce variations in the Company's earnings and otherwise protect the Company from the adverse impacts of departures from normal weather.

182. The WNA will be in effect for the winter period for Rate Schedule 1 and 2 and for the weather sensitive portions of Rate Schedules RE-2 and 10.

183. NCNG's WNA should operate in the same manner (without a dead band) as the Weather Normalization Adjustment clause recently approved for Piedmont Natural Gas Company, Inc., and Public Service Company of North Carolina, Inc.

MISCELLANEOUS ACCOUNTING MATTERS

184. NCNG should prepare an accounting manual as recommended by the Public Staff and agreed to by the Company within three years from the date of this Order.

185. NCNG should undertake a study so as to determine an appropriate methodology to properly allocate employees' time spent on affiliated companies.

186. NCNG should prepare a square footage study during 1992 for the purpose of providing current data for allocating plant to non-utility operations.

187. NCNG should allocate on its books the expenses for payroll taxes, pension costs, group insurance, workers' compensation, accident and health, excess liability, and all other payroll related expenses to accounts based on the distribution of payroll within 60 days of the date of this Order.

188. NCNG should record non-utility taxes in non-utility accounts within 60 days of the date of this Order.

189. NCNG should use as its Allowance for Funds Used During Construction (AFUDC) rate the overall return on investment approved in this Order.

190. NCNG should account for fuel retainage costs associated with storage injections as a cost of gas in storage, as recommended by the Public Staff.

191. The $344,395 gain realized by NCNG on the sale of land should be flowed back to ratepayers over a period of three years through the gas cost deferred account after being grossed up for gross receipts tax.

192. Off-system sales to Public Service Company of North Carolina should be included in the regulatory fee calculation.

193. NCNG's lost and unaccounted for volumes should be trued up annually.

194. It is not appropriate that margins earned on sales of natural gas to CP&L for use in its Weatherspoon plant be placed in NCNG's gas cost savings deferred account.

RULES AND REGULATIONS

195. In its original prefiled testimony and exhibits, NCNG proposed certain modifications to its service regulations, including an increase in its reconnection fees, an increase in its charge for returned checks and revisions which primarily streamline the Rules and Regulations, eliminate certain redundancies, address transportation procedures, address procedures regarding billing errors, and clarify Company responsibility up to the point of delivery and customer responsibility on the customer's side of the delivery point.

Of course, the actual cost of any gas sold to Public Service would be recovered from ratepayers by NCNG through its Rider B PGA Procedures. In addition, NCNG's cost for connecting with Public Service Company's system is included in rate base, and ratepayers are paying a return, as well as the operating costs and depreciation expense, associated with this transmission line. Therefore, since NCNG ratepayers are bearing all of the costs on sales of gas to Public Service Company, ratepayers should receive all the margins earned by NCNG on sales of gas to Public Service Company.

The Commission concludes the following:

(1) The Company should record in the Deferred Gas Cost Account all additional margins earned on sales of gas to off-system entities, including Public Service Company of North Carolina, Inc. The additional margins are computed by comparing all revenue received by the Company, less the cost of gas and gross receipts taxes, to the revenue less the cost of gas and gross receipts taxes reflected for sales of gas to off-system entities, including Public Service Company of North Carolina, Inc., included by the Commission in the cost of service in this proceeding.

(2) The cost of service in this proceeding reflects $1,833,102 of revenue, $569,092 of cost of gas, and $59,026 of gross receipts taxes, for a margin of $1,204,984 related to sales of gas to off-system entities. The entire amount reflected in this proceeding for sales of gas to off-system entities relates to firm sales of gas to Public Service Company of North Carolina, Inc.

SUMMARY CONCLUSION

The Rider B Purchased Gas Adjustment Procedures the Commission approves for NCNG, which are those as recommended by the Public Staff, are provisional subject to further order in Docket No. G-100, Sub 58. These PGA Procedures account for all the commodity costs of all gas supplies and services, and for all the fixed costs associated with gas transportation, storage, and other services. The approved PGA Procedures provide for a 100% true-up of all prudently incurred gas costs. However, all costs of storage and capacity services added after the hearing in this case should be recovered and placed in a separate deferred account for disposition per Commission Order in Docket No. G-100, Sub 58.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 181 - 183

The evidence for these findings of fact is contained in the testimony of NCNG witness Teele and Public Staff witness Curtis and the Motion filed by the Public Staff on November 15, 1991.

NCNG requested approval of a Weather Normalization Adjustment factor (WNA) which would be in effect for the winter period for Rate Schedules 1 and 2 and for the weather sensitive portions of Rate Schedules RE-2 and 10.

The Public Staff supported, through Public Staff witness Curtis, the removal of the 5% dead band originally proposed by NCNG and agreed with NCNG's new proposal for weather normalization adjustment.

On November 15, 1991, the Public Staff filed a Motion To Correct The WNA In The Proposed Rider C. The Motion, among other things, seeks to correct the WNA to reflect that the R term set forth therein is the approved rate less gas costs, which include both commodity costs and fixed costs as allocated to each rate class in the rate case for purposes of the WNA. The Public Staff points out that such corrections will conform NCNG's WNA to those approved for Piedmont and Public Service with respect to the R term. No response has been filed by any party to the Public Staff's Motion.

The Commission concludes that NCNG's WNA should operate in the same manner as the Weather Normalization Adjustment clause recently approved for Piedmont and Public Service.

The Commission concludes that the weather tracker, as set forth in the attachment to the Public Staff's Motion, is appropriate for implementation by NCNG in this general rate case.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 184

The evidence supporting this finding of fact is contained in the testimony of Company witness Teele and Public Staff witness Fernald. Ms. Fernald stated in direct testimony that in exchange for the Public Staff's agreement to the uncollectibles percentage of 0.18104%, the Company agreed to prepare an accounting manual within three years.

The Commission concludes that NCNG should prepare an accounting manual within three years from the date of this Order.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 185

The evidence supporting this finding of fact is contained in the testimony of Company witness Teele and Public Staff witness Fernald. Ms. Fernald recommended that NCNG employees indicate time spent on affiliated companies on time sheets or labor studies. Ms. Fernald stated that this would provide actual data for allocating payroll to affiliates.

Company witness Teele stated that NCNG would not accept the Public Staff's recommendation since NCNG does not believe that any executive time should be allocated to affiliated companies where executives do not spend a lot of time.

As discussed elsewhere herein, the Commission concluded that the Public Staff adjustment to allocate payroll to affiliates was reasonable and appropriate. The Commission concludes that NCNG should undertake a study to be incorporated with NCNG's next general rate case filing so as to determine an appropriate methodology to properly allocate NCNG's employees time spent on affiliated companies. It is improper for ratepayers to subsidize any amount of employee time spent on nonregulated affiliated companies, and it is appropriate

Witness Teele testified that NCNG sends notices to transportation customers every month setting forth the status of their imbalance accounts and that NCNG maintains frequent telephone contact with these customers so that potential imbalance situations are not a surprise to the customer involved. Witness Teele testified that positive imbalances create problems for the Company in scheduling its gas purchases because customer gas may be loaded into NCNG's system when the price is low and then NCNG has to give it back to the customer when the price goes up. Witness Teele pointed out that, although a transportation customer's problems with its producer or the interstate pipelines may not directly be the customer's fault, the problems are not caused by NCNG. The procedures for gas cost adjustments prevent the shifting of the transportation customer's imbalance problems to NCNG and its remaining customers for more than the one month in which the transportation customer must correct the problem. Witness Teele testified that the last paragraph of the section on Gas Cost Adjustment of the Rules and Regulations is necessary to prevent the practice of customers buying large quantities of gas and having it delivered to NCNG's system in the summer months before October 31, for use during the winter period. Witness Teele testified that such practice adversely impacts NCNG's gas buying practices. The Commission concludes that these transportation imbalance provisions are reasonable and appropriate.

Except for the modifications found to be appropriate herein, NCNG's proposed service regulations as amended by the Public Staff and agreed to by the Company are just and reasonable.

IT IS, THEREFORE, ORDERED as follows:

1. That North Carolina Natural Gas Corporation is authorized to adjust its rates and charges effective for service rendered on and after the date of this Order so as to produce an annual level of revenue of $145,567,489 from its North Carolina retail customers (including revenues of $1,833,102 from firm sales to Public Service Company of North Carolina and $444,774 of other operating revenues, and assuming a $2.5293 base cost of gas) based upon the adjusted test year level of operations found reasonable herein. This amount represents an increase of $2,564,512 more than would be produced from the rates in effect prior to this Order, based upon the test year level of operations.

2. That a connection fee of $15.00 for each new residential and commercial customer is approved effective for service rendered on and after the date of this Order.

3. That an increase in the returned check fee from $5.00 to $15.00 is approved effective for service rendered on and after the date of this order.

4. That increases in reconnection fees are approved as follows:

For residential customers, the reconnection fee will increase from $19.42 to $29.13 in the months of February through August, and to $43.69 in the months of September through January.

For commercial customers, the reconnection fee will increase from \$29.13 to \$38.84 in the months of February through August, and to \$58.25 in the months of September through January.

The amounts stated above exclude the 3% North Carolina sales tax, and are to be effective for service rendered on and after the date of this Order.

5. That the Industrial Sales Tracker (IST) mechanism is approved as discussed herein and shall be effective for service rendered on and afte the date of this Order. A revised IST Rider A consistent with the provisions of this Order including appropriate base period gross profits amounts shall be filed with the Commission not later than ten days after the date of this Order. The calculation of the appropriate base period gross profit amounts shall be subject to review by the Public Staff and final approval by the Commission.

6. That the Purchased Gas Adjustment (PGA) and deferred account procedures are approved as discussed herein, subject to modifications ordered by the Commission in Docket No. G-100, Sub 58, and shall be effective for service rendered on and after the date of this Order. A revised PGA Rider B consistent with the provisions of this Order shall be filed with this Commission not later than ten days after the date of this Order.

7. That the Weather Normalization Adjustment (WNA) mechanism is approved as discussed herein and shall be effective for service rendered on and after the date of this Order. A revised WNA Rider C consistent with the provisions of this Order shall be filed with this Commission not later than ten days after the date of this Order.

8. That changes to the General Rules and Regulations are approved as discussed herein and shall be effective for service rendered on and after the date of this Order. The Company shall file the revised General Rules and Regulations as approved herein not later than ten days after the date of this Order.

9. That NCNG shall file written service agreement forms to be used for new customers. The forms shall be filed with the Commission within 60 days of the date of this Order and shall be deemed approved in the absence of written objections from a party to this proceeding within 60 days of the filing of such forms.

10. That within five (5) working days after the date of this Order, NCNG shall file tariffs with the Commission designed to produce the increase in revenues set forth in decretal paragraph number 1 above in accordance with the guidelines attached as Appendix A of this Order and such tariffs shall also be properly adjusted for all approved increments and decrements. The tariffs required herein shall be accompanied by computations showing the level of revenues which will be produced by the rates for each rate schedule. Upon the Company filing such tariffs, the Commission will allow two (2) days for intervenor comment.

24. That the rate designs, rate schedules, miscellaneous charges, and terms and conditions proposed by the Company, except as modified herein, are approved.

ISSUED BY ORDER OF THE COMMISSION

This the 6th day of December, 1991.

NORTH CAROLINA UTILITIES COMMISSION

Geneva S. Thigpen

(SEAL) Geneva S. Thigpen, Chief Clerk

Commissioner Tate concurs by separate opinion.

WEATHER NORMALIZATION ADJUSTMENT - RIDER C

1. Applicability

The factor shall be applicable to Company's Rate Schedule No. 1, to service rendered to small commercial customers only under Company's Rate Schedule No. 2, to sales under Company's Rate Schedule No. 10 or transportation under Company's Rate Schedule No. T-10 for residential uses only at military bases served under those rate schedules, and to sales of gas under Company's Rate Schedule No. RE-2 or transportation of gas under Company's Rate Schedule No. T-6 for consumption by residential and small commercial customers of municipal or public authority gas distribution systems served under those rate schedules.

2. Computation of the Weather Normalization Adjustment for Residential and Small Commercial Customers Receiving Service Under Rate Schedules 1 and 2

In each billing period that actual degree days vary from normal degree days, the base rate for each of these rate schedules shall be adjusted by an amount calculated as described below. This adjustment shall be applied to all bills rendered during the period November 16 through April 15.

The Weather Normalization Adjustment for each billing cycle shall be computed to the nearest one-ten thousandth of a cent per therm through the use of the following formula:

$$WNA_i = R_i \times \frac{(HSF_i(NDD-ADD))}{(BL_i + (HSF_i \times ADD))}$$

Where:

i = any particular rate schedule that this factor is applied to

WNA_i = Weather Normalization Factor for the i^{th} rate schedule expressed in cents per therm

R_i = base rate (approved rate less cost of gas) for the i^{th} schedule

HSF_i = heat sensitive factor for the i^{th} rate schedule, or for the subject customer class within the i^{th} rate schedule if applicable, approved by the Commission in the last general rate case for the purpose of determining normalized test year revenues

NDD = normal weighted billing cycle heating degree days calculated in the manner approved by the Commission in the last general rate case

ADD = actual weighted billing cycle heating degree days calculated in the manner approved in the last general rate case

WEATHER NORMALIZATION ADJUSTMENT - RIDER C

BL_i = base load sales for the i^{th} rate schedule, or for the subject customer class within the i^{th} rate schedule if applicable, approved by the Commission in the last general rate case for the purpose of determining normalized test year revenues

3. Computation of the Weather Normalization Adjustment for Municipalities or Public Authorities and Military Installations <u>Served Under Rate Schedules 10, RE-2, T-6, and T-10</u>

In each billing period that actual degree days vary from normal degree days, the billing amount for each of these customers shall be adjusted by an amount calculated as described below. This adjustment shall be applied to all bills for service rendered during the period November through March. The Weather Normalization Adjustment for each billing period shall be computed to the nearest cent through the use of the following formula:

$$WNA_i = R_i \times (NDD-ADD)$$

Where:

i = any particular customer that this factor is applied to

WNA_i = Weather Normalization Amount for the i^{th} customer

R_i = calculated margin less fixed gas costs for the i^{th} customer per heating degree day

NDD = normal heating degree days for the billing period

ADD = actual heating degree days for the billing period

4. <u>Filing with the Commission</u>

The Company will file as directed by the Commission (a) a copy of the computations of the Weather Normalization Adjustment, (b) the effective dates for each adjustment and (c) the factors approved by the Commission used to calculate the Weather Normalization Adjustments.

PUBLIC SERVICE COMPANY OF NORTH CAROLINA

Weather Normalization Adjustment

OFFICIAL COPY

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. G-5, SUB 280

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Public Service Company of North Carolina, Inc., For an Adjustment of Its Rates and Charges	)	ORDER GRANTING PARTIAL RATE INCREASE

HEARD IN: Conference Room No. 203, 2nd Floor, City Office Building, Corner of South Center Street and East Front Street, Statesville, North Carolina, on Tuesday, August 20, 1991, at 7:00 p.m.

Council Chambers, City Hall, Corner of South Street and Franklin Boulevard, Gastonia, North Carolina, on Wednesday, August 21, 1991, at 7:00 p.m.

Superior Court Room, 5th Floor, Buncombe County Courthouse, Courthouse Plaza, 189 College Street, Asheville, North Carolina, on Thursday, August 22, 1991, at 7:00 p.m.

Commission Hearing Room No. 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, on Tuesday, September 3, 1991, at 7:00 p.m.

Commission Hearing Room No. 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, on Wednesday, September 4, 1991, at 9:00 a.m.

BEFORE: Commissioner Laurence A. Cobb, Presiding; and Commissioners Charles H. Hughes and Allyson K. Duncan

APPEARANCES:

For the Applicant:

F. Kent Burns and James M. Day, Burns, Day & Presnell, P.A., Post Office Box 10867, Raleigh, North Carolina 27605

99. The amended service regulations embodied in the Stipulation between Public Service and the Public Staff are just, reasonable, and appropriate for use in connection with service rendered on and after the effective date of this Order.

100. The Company's earnings and certain customers' bills vary widely on the basis of weather.

101. Public Service has requested Commission approval of a Weather Normalization Adjustment clause.

102. Public Service benefits from its proposed Weather Normalization Adjustment clause in that it has a more predictable revenue stream and therefore can better plan its business.

103. Public Service's proposed Weather Normalization Adjustment clause will reduce variations in its earnings and rates of return and in customers' bills.

104. Public Service's proposed Weather Normalization Adjustment clause will tend to increase bills during times of warm weather when consumption is low and reduce bills during times of abnormally cold weather when consumption is high.

105. The proposed Weather Normalization Adjustment clause will protect both the Company and its customers from the adverse impact of departures from normal weather.

106. The appropriate customer classes to be included in Public Service's Weather Normalization Adjustment clause for purposes of this proceeding are customers served under Rate Schedule Nos. 105, 110, 125, and 130.

107. Under Public Service's Weather Normalization Adjustment clause, fixed gas costs will be allocated to the various customer classes as stipulated to between Public Service and the Public Staff.

108. The Weather Normalization Adjustment clause stipulated to by Public Service and the Public Staff is fair and reasonable and should be approved for service rendered on and after the effective date of this Order.

109. The level of actual unaccounted for volumes during any given period fluctuates.

110. Any difference in the level of unaccounted for volumes set in a general rate case and those actual volumes results in either a gain or loss to the Company.

111. The Public Staff proposed and Public Service accepted a true-up of unaccounted for volumes.

112. The actual twelve month running unaccounted for volumes at June of each year (the Actual Volumes) shall be compared to the level of the unaccounted

procedures adopted to implement G.S. 62-133.4. The costs subject to the provisional revised Rider D which relate to additional pipeline capacity and storage shall be subject to the Commission's determination of which costs shall be subject to the rate changes and true-up provided by G. S. 62-133.4. Any monies so collected which are associated with additional pipeline capacity and storage shall be placed in a deferred account pending further Order of the Commission.

Provisional approval of the revised Rider D as proposed by Public Service to include the costs of additional pipeline capacity and storage is made without prejudice to the Commission's determination of which costs shall be subject to the rate changes and true-up provided by G.S. 62-133.4.

The Commission concludes that the revised Rider D embodied in the Stipulation proposed by the Company and the Public Staff should be approved on a provisional basis, as hereinabove provided, pending implementation of G. S. 62-133.4.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NUMBERS 92-99

The evidence for these findings is contained in the testimony of Public Service witnesses Dickey and Voigt and Public Staff witness Davis and the Stipulation.

In its original prefiled testimony and exhibits, Public Service proposed certain modifications to its service regulations and certain increases in incidental fees. In the Stipulation between Public Service and the Public Staff, the Company's request for increased reconnection fees, after-hours service fees, and seasonal residential and small commercial facility charges were accepted by the Public Staff and a set of revised service regulations were approved.

With the exception of one portion of the proposed service regulations, neither the Attorney General, the City of Durham, nor CUCA objected to these proposals. The only issue concerning Public Service's proposed service regulations objected to by CUCA involves the Company's request that industrial customers have no more than one alternate fuel per delivery. Company witness Dickey testified that the provision was necessary to ensure that the negotiated rate program is administered fairly and that no one takes advantage of the program.

The Commission agrees that it would be unfair to allow an industrial customer using two or more alternate fuels to negotiate the price of its entire gas load on the basis of its lowest alternate fuel price unless the fuel used for negotiation can replace the entire load. Separate metering will allow all gas volumes to be priced properly. The Commission concludes that revised service regulations in the Stipulation between Public Service and the Public Staff should be approved for service from and after the effective date of this Order.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NUMBERS 100-108

The evidence for these findings is contained in the testimony and exhibits of Company witnesses Dickey, Voigt, and Zeigler and Public Staff witness Davis and the Stipulation.

The Company has proposed to implement a Weather Normalization Adjustment clause which will bill weather-sensitive sales rate customers as if normal weather had occurred. The purpose of the proposed Weather Normalization Adjustment clause is to minimize the financial impact of abnormal weather upon Public Service's revenues and earnings. The Stipulation between the Company and the Public Staff recommended the approval of Public Service's proposed Weather Normalization Adjustment clause. Neither the Attorney General, the City of Durham, nor CUCA opposed this portion of the Stipulation. As a result, the Company is authorized to implement the Weather Normalization Adjustment clause in the form embodied in the Stipulation between Public Service and the Public Staff from and after the date of this Order. The parties should work together to derive an appropriate form to be used to meet the filing requirements of the Weather Normalization Adjustment clause.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NUMBERS 109-112

The evidence for these findings is contained in the testimony of Public Staff witness Davis and the Stipulation.

In its original prefiled testimony, the Public Staff requested Commission approval for a true-up of Public Service's unaccounted for volumes. According to the Public Staff, the implementation of such a true-up will prevent the Company from underrecovering or overrecovering its unaccounted for volumes. The Stipulation between Public Service and the Public Staff provided that Public Service's unaccounted for volumes should be trued-up on an annual basis. Neither the Attorney General, the City of Durham, nor CUCA opposed this recommendation. As a result, the Commission concludes that Public Service's unaccounted for volumes should be trued-up on an annual basis in the manner set forth herein.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NUMBERS 113-120

The evidence for these findings is contained in the testimony of Public Staff witness Hinton and the Stipulation.

In her original prefiled testimony and exhibits, witness Hinton set forth concerns regarding certain general accounting matters. In the Stipulation between Public Service and the Public Staff, the parties have agreed to the manner in which these accounting matters are to be treated. Accordingly, upon consideration of the Stipulation and the Commission's approval of the Company's Rider D, the Commission concludes that these general accounting matters should be treated as set forth in the Stipulation.

IT IS, THEREFORE, ORDERED as follows:

1. That Public Service Company of North Carolina, Inc., be, and is hereby, allowed to increase its rates and charges so as to produce an annual level of revenue of $240,616,112 (including $10,005,737 of other operating revenue and assuming a $2.50 cost of gas) from its customers based upon its test period level of operations. Such amount represents an increase of $5,299,074 above the level of revenues that would have resulted from rates in effect during

the test period.

2. That the rates shown on Stipulation Schedule 2, Revised, be, and the same are hereby, approved effective for service rendered on and after November 1, 1991.

3. That the service regulations set forth in the Stipulation, as revised, be, and the same are hereby, approved effective for service rendered on and after November 1, 1991.

4. That the Rider D tariff set forth in the Stipulation, as revised, be, and the same is hereby, approved effective for service rendered on and after the date of this Order, on a provisional basis, in the sense hereinabove provided, pending implementation of G.S. 62-133.4. Any monies so collected which are associated with additional pipeline capacity and storage shall be placed in a deferred account pending further Order of the Commission.

5. The Weather Normalization Adjustment clause set forth in the Stipulation be, and the same is hereby, approved effective for service rendered on and after November 1, 1991.

6. That the accounting procedures contained in the Stipulation between the Company and the Public Staff shall be implemented from and after the date of this Order.

7. That Public Service Company of North Carolina, Inc., shall file appropriate tariffs, including its service regulations, Rider D, and Weather Normalization Adjustment clause, in accordance with the provisions of this Order, not later than ten (10) days from the date of this Order. Said tariffs shall be properly adjusted for any PGA adjustments and for any temporary increments and decrements currently in effect.

8. That Public Service Company of North Carolina, Inc., shall send the Notice attached hereto as Appendix A to its customers by appropriate bill inserts in the next billing cycle following the effective date of the new tariffs.

9. That the tariffs filed in response to decretal Paragraph 7 above shall be subject to approval by further order of the Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 1st day of November 1991.

NORTH CAROLINA UTILITIES COMMISSION

Geneva S. Thigpen

Geneva S. Thigpen, Chief Clerk

(SEAL)

SOUTH CAROLINA ELECTRIC & GAS COMPANY

Weather Normalization Adjustment

BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 91-342-G - ORDER NO. 91-971

NOVEMBER 1, 1991

IN RE: Application of South Carolina Electric & Gas Company for Approval of Weather Normalization Adjustment and for Elimination of Certain Rate Schedules.	)	ORDER APPROVING ADOPTION OF WEATHER NORMALIZATION ADJUSTMENT AND FOR ELIMINATION OF CERTAIN RATE SCHEDULES

I.

INTRODUCTION

This matter is before the Public Service Commission of South Carolina (the Commission) on the Application of South Carolina Electric & Gas Company (SCE&G or the Company), whereby the Company requests the Commission to approve the adoption of a Weather Normalization Adjustment (WNA) to be applied to its Gas Rates 31 and 32, Small General Service and Residential Gas Service, respectively, for firm gas service effective as of November 1, 1991, for implementation in the Company's billing cycles beginning in the month of December 1991. In addition, the Company requests the Commission to approve the elimination of certain rate schedules for natural gas service. The Company's July 26, 1991, Application was filed pursuant to 26 S.C. Code Ann., Reg. 103-403(B) (1976, as amended).

By letter dated August 1, 1991, the Commission's Executive

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Director instructed the Company to publis
Filing and Hearing, once a week for two c
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indicated the nature of the Company's App
interested parties of the manner and time
appropriate pleadings. The Company was li
directly all customers affected by the pr
Company was further directed to file proo
of notification of the above on or before
Company duly filed said affidavit and cer

A Petition to Intervene was filed on
Consumer Advocate for the State of South (
Advocate). Testimony was subsequently fi
behalf of the Company and James S. Stites
behalf of the Commission Staff. (All tes
thereafter stipulated into the record at

Thereafter, in accordance with the a
law and the Commission's Rule of Practice
hearing relative to the matters asserted
Application was commenced on October 24,
Marjorie Amos-Frazier presided. Mark W.
Robert T. Bockman, Esquire, represented t
Lark, Jr., Esquire, represented the Consu
Butler, Esquire, represented the Commissi

With regard to the proposed adoption

Under the Company's proposal, the WNA will apply only to billing months of November through April. The customer will s downward adjustment reflected on his bill if weather conditio colder than normal weather and the reverse during warmer than normal conditions. Under the Company's proposal, the WNA appl only to the portion of the rate which covers costs other than costs.

Company witness Darby also testified with regard to the Company's request to eliminate certain rate schedules. Darby s that this is consistent with the provisions of our Order No. 9(in which the Commission approved SCANA Corporation's acquisitic Peoples Gas Company (Peoples), former customers of Peoples unde the Company's proposal will be assigned to SCE&G Rate Schedules (Small Firm General Service), 32 (Residential) and 34 (Large Fi General Service), respectively, to bring about rate consolidati In addition, the Company proposes to eliminate the former People Rate Schedules 1, 3, 4, and 5, and place customers on these rate on the appropriate SCE&G Rate Schedules 31, 32, and 34. The Company states that this results in a net revenue reduction of $340,368. Further, the Company states that the average resident customer using 600 therms annually will realize a decrease of approximately $23 or 5%, based on their current rate.

In addition, the Company requests withdrawal of rate schedul 8, 9, 10, 11, 13, T-1, and T-2 approved by the Commission in Orde No. 90-1060, dated November 14, 1990. The Company states that there are no customers currently served or anticipated to be serv on these schedules. Further, the Company proposes the withdrawal of the purchased gas adjustment rider applicable to Rates 1, 3, 4, 5, 10, 11, and 13. Darby states that the Company does not propose any changes to the existing general terms and conditions as presently approved by the Commission applicable to Rate Schedules 31, 32, 34, and 35. The Rules and Regulations applicable to customers formally served by Peoples should remain and be applicable to Rates 6 and 7 only. SCE&G proposes that when current service agreements expire for customers served under Rate Schedules 6 and 7, that new service agreements should be entered into under other pricing provisions.

On the date of the hearing, all three parties--the Company, the Commission Staff and the Consumer Advocate--presented to this Commission Stipulations entered into and signed by representatives of all the parties. The Stipulations were as follows:

A. That, effective on and after the date of any order of this Commission approving the within Stipulations, the rate of return on common equity of 12.75%, previously approved in Order No. 89-1074, dated November 30, 1989, will be adjusted to 12.25% for SCE&G's firm natural gas operations.

B. That the Staff and the Consumer Advocate will not oppose the adoption of the WNA for SCE&G's gas operations and the elimination or withdrawal of the gas rate schedules, as proposed in the Company's Application, dated July 26, 1991, in Docket No. 91-342-G, effective as of November 1, 1991, for implementation in the Company's December 1991 billing cycles.

C. That the implementation of the WNA will be effective for three years, beginning in November 1991. The WNA will be subject to annual docketed review by the Commission including discovery, and it will be subject to modification and/or termination after each winter period at the discretion of the Commission.

D. That, in the implementation of the WNA, the Company will use the normal heating degree days published by the National Oceanic and Atmospheric Administration ("NOAA"). That information is based on a thirty-year period, recalculated each decade. Until NOAA updates the presently published normal heating degree days, the Company's WNA will use the information for the period 1961-90 contained in Attachment A, attached hereto and incorporated herein by reference. (This attachment appears as Appendix B to this Order).

E. That, upon the Commission's approval of the proposed WNA, the Company will begin an information program designed to advise its customers of the WNA and its operation. The Company will continue such program through the first year of operation of the WNA, and the Company will advise the Commission of all aspects of the informational program.

F. That the Company will maintain its books and records in sufficient detail to enable the Commission to determine the revenue impact of the operation of the WNA. The Company will file monthly reports to enable the Commission to make such determination.

G. That SCE&G will not propose the adoption of a weather normalization adjustment, similar to the WNA to be approved in Docket No. 91-342-G, for its retail electric operations which would be effective prior to November 1, 1994.

H. That SCE&G will propose the adoption of a cost of gas of 38.375 cents per therm for its firm rate tariffs in Docket No. 91-008-G, effective November 1, 1991. The proposed cost of gas represents a reduction of seven and one-fourth cents per therm in the cost of gas previously approved by the Commission.

I. That the Parties agree that, for the historic period at issue in Docket No. 91-008-G (i.e., September 1990 - August 1991), SCE&G's gas purchasing practices and the recovery of its gas costs were undertaken in accordance with tariffs and rate schedules approved by the Commission for South Carolina Pipeline Corporation and SCE&G. The Consumer Advocate and the Commission Staff agree that they will not challenge the fact that SCE&G purchased its gas and recovered it gas costs in accordance with such approved tariffs and rate schedules during that historic period.

J. That the Parties agree that these Stipulations will not affect the implementation of the provisions contained in paragraph 3 of the Settlement Agreement, dated May 6, 1991, and executed by the Consumer Advocate, the Commission and Peoples Natural Gas Company of South Carolina, and entered in

Carolina Supreme Court Docket No. 90-757).

K. That no base rates to any existing customer served on Rate Schedules 6 or 7 shall increase as a result of these Stipulations for a period of 18 months from the date of any order of the Commission approving the within Stipulations.

L. That the agreement of the Consumer Advocate and the Commission Staff to these Stipulations does not constitute waiver of their agreement for proper inquiry into the allocation procedures for the entities formerly known as Peoples Natural Gas Company of South Carolina and related matters, including the consolidation of certain propane operations which are now affiliated with, or owned by, SCANA Corporation.

M. The Parties agree to file the within Stipulations for formal approval by the Commission not later than the public hearing now scheduled in Docket No. 91-008-G for October 24, 1991. The Parties agree to cooperate in the submission of these Stipulations in that proceeding and in Docket No. 91-342-G for the purpose of the Commission's consideration of the Stipulations.

II.

FINDINGS OF FACT

Upon full consideration of the Company's verified Application, the evidence presented at the hearing, the Stipulations of the parties, and the applicable law, the Commission makes the following findings of fact and conclusions of law:

1. The Company is a public utility operating in South Carolina, where it is engaged in the purchase, distribution, and sale of gas to the public for compensation.

2. The Company's present rates and charges were set out in Order No. 89-1074, issued in Docket No. 89-245-G on November 30, 1989.

3. The Company presently serves approximately 222,000 gas customers. The Company's distribution system consists of approximately 5,100 miles of mains located in 96 cities and towns and 32 counties in South Carolina.

4. The present firm Gas Rates 31, 32, 34, and 35 now in effect were approved by the Commission in Order No. 91-191, dated March 12, 1991. For facilities and territories previously certificated to Peoples Gas, the present Gas Rates 1, 3, 4, 5, 6, and 7 now in effect were approved by the Commission on May 28, 1991, and reflect the settlement approved by the South Carolina Supreme Court.

5. By its Application, the Company seeks Commission approval of a weather normalization adjustment (WNA) and the elimination of certain rate schedules.

6. That the Stipulation agreed to by the parties and entered into evidence as Hearing Exhibit 1 is fair, reasonable and should be adopted by this Commission.

7. That effective on and after the date of this Order, the rate of return on common equity of 12.75% previously approved in Order No. 89-1074, dated November 30, 1989, will be adjusted to

12.25% for SCE&G's firm natural gas operation.

8. That since under the terms of the Stipulations, the Staff and Consumer Advocate do not oppose this Commission's adoption of the weather normalization adjustment for SCE&G's gas operations and the elimination or withdrawal of the specified gas rates schedules as proposed in the Company's Application, dated July 26, 1991, and that since the Commission has examined the evidence submitted by all the parties in the matter, the Commission believes that both the weather normalization adjustment, as described above, and the elimination of the schedules as proposed should be approved.

9. That the weather normalization adjustment should be calculated as per the formula included as an exhibit to the direct testimony of Warren A. Darby in this proceeding and entered into the evidence as Hearing Exhibit 2. The Commission hereby adopts this exhibit as Appendix A to this Order and includes said Appendix herein as fully as if repeated herein verbatim as part of this Commission's Order.

10. That the weather normalization adjustment will apply only to the billing months of November through April and shall apply only to the portion of the rate which recovers cost other than gas costs as per the formula.

11. That the implementation of the weather normalization adjustment will be effective for three years beginning in November 1991 for billing periods beginning December 1, 1991. The weather normalization adjustment will be subject to annual docketed review by the Commission including discovery and it will be subject to

modification and/or termination after each winter period at the discretion of the Commission.

12. That in the implementation of the WNA, the Company will use the normal heating degree days published by the National Oceanic and Atmospheric Administration (NOAA). That information is based on a thirty-year period recalculated each decade. Until NOAA updates the presently published normal heating degree days, the Company's WNA will use the information for the period 1961-90 contained in Appendix B attached hereto and incorporated herein by reference.

13. That the Company should begin an information program immediately, designed to advise its customers of the WNA and its operation. The Company should continue such program through the first year of operation of the weather normalization adjustment, and the Company should advise the Commission of all aspects of the informational program.

14. The Company should maintain its books and records in sufficient detail to enable the Commission to determine the revenue impact of the operation of the weather normalization adjustment. The Company should file monthly reports to enable the Commission to make such determination.

15. That the Company shall be allowed to eliminate Rate Schedules 1, 3, 4, and 5 and place customers on the appropriate Rate Schedules 31, 32, and 34.

16. The Company should be allowed to withdraw Rate Schedules 8, 9, 10, 11, 13, T-1 and T-2 as well as the Purchased Gas

Adjustment Rider applicable to Rates 1, 3, 4, 5, 10, 11 and 13.

17. The Company should not change the existing general terms and conditions as presently approved by the Commission applicable to Rate Schedules 31, 32, 34, and 35, except that the Rules and Regulations applicable to customers formally served by Peoples should remain and be applicable to Rates 6 and 7 only.

18. That as per the stipulation, no base rates to any existing customers served on Rate Schedules 6 or 7 shall increase for a period of 18 months from the date of this Order.

III.

CONCLUSIONS OF LAW

1. That the request of South Carolina Electric & Gas Company to institute a weather normalization adjustment effective November 1, 1991, for billing cycles beginning December 1, 1991, and the elimination of certain rate schedules as stated above are hereby approved.

2. That the terms of the Stipulations entered into by the parties on October 15-16, 1991, should be approved as fair, just, and equitable.

IT IS THEREFORE ORDERED:

1. That the rate of return on common equity of 12.75% previously approved in Order No. 89-1074, dated November 30, 1989, shall be adjusted to 12.25% for SCE&G's firm natural gas operations as of the date of this Order.

2. That the weather normalization adjustment as proposed by the Company is hereby approved, effective as of November 1, 1991,

for implementation in the Company's December 1991 billing cycles.

3. That the weather normalization adjustment will be operated as per the formula stated in Appendix A and the Company will use the normal heating degree days published by the National Oceanic and Atmospheric Administration based on a thirty-year average as stated above.

4. That the implementation of the weather normalization adjustment will be effective for three years beginning in November 1991 and that the WNA will be subject to annual docketed review by the Commission including discovery and will be subject to modification and/or termination after each winter period at the discretion of the Commission.

5. That the Company shall begin an information program designed to advise its customers of the WNA and its operation. Said program shall continue through the first year of operation of the WNA and the Company shall advise the Commission of all aspects of the informational program. The Company shall maintain its books and records in sufficient detail to enable the Commission to determine the revenue impact of the operation of the WNA and shall file monthly reports to enable the Commission to make such determination.

6. That the Company may eliminate Rate Schedules 1, 3, 4 and 5, and place customers on these rates on the appropriate Rate Schedules 31, 32, and 34.

7. That the Company may withdraw Rate Schedules 8, 9, 10, 11, 13, T-1 and T-2 and the Purchased Gas Adjustment Rider

applicable to Rates 1, 3, 4, 5, 10, 11 and 13.

8. That no base rate to any existing customer served on Rate Schedule 6 or 7 shall increase for a period of eighteen months from the date of this Order.

9. That all other provisions of the Stipulation not heretofore mentioned are hereby made a part of this Order.

10. That the new rate schedules and tariff sheets should be filed reflecting the findings herein within five (5) days of the Company's receipt of this Order.

11. That this Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

Henry G. Yonce

VICE Chairman

ATTEST:

Executive Director

(SEAL)

SOUTH CAROLINA ELECTRIC & GAS COMPANY

WEATHER NORMALIZATION ADJUSTMENT

DOCKET NO. 91-342-G

Applicability

The Weather Normalization Adjustment (WNA) is applicable to and is a part of the Company's firm gas rate schedules 31 and 32. The commodity charges per therm for each billing cycle during the billing months of November through April will be increased or decreased in an amount to the nearest one-thousandth of a cent, as derived by the following formula:

$$WNA = \frac{R \times (HSF \times (NDD - ADD))}{BL + (HSF \times ADD)}$$

Where:

WNA = Weather Normalization Adjustment factor for any particular rate schedule expressed in dollars per therm.

R = Weighted average base rate (approved rate less cost of gas) for any particular rate schedule.

HSF = Heat Sensitive Factor (relationship between consumption and ADD) for any particular rate schedule utilized by the Commission in determining normalized revenues.

NDD = Normal billing cycle heating degree days utilized by the Commission in determining normalized revenues.

ADD = Actual billing cycle heating degree days.

BL = Base load sales for any particular rate schedule utilized by the Commission in determining normalized revenues.

WNA DESCRIPTION:

The Weather Normalization Adjustment Factor is calculated by multiplying the weighted average non-gas cost base rate (denoted by R in the formula) times the heat sensitive factor (HSF), as determined in the weather normalization procedure times the deviation from normal weather and then this result is divided by the expected actual consumption. The formula computes the marginal change in gas rates that is required to recover the Company's fixed costs from the actual sales associated with abnormal weather. The factor for each rate and billing cycle is based solely on the actual heating degree days in each individual billing period and the deviation from the normal heating degree days for the period. All of the other values in the formula would be fixed at the time the Commission approved the WNA Clause for the Company. Those factors would remain in effect until a change is approved by this Commission.

COMPONENTS IN THE FORMULA:

R

The R value is an average rate per therm calculated for each applicable rate schedule by weighting the non-gas cost rate by block.

HSF and BL

The heat sensitive factor (HSF) and baseload (BL) are statistical parameters that are calculated from a regression analysis that measures the relationship between usage (measured in therms) and heating degree days. Usage on sales is the dependent variable and weather as measured by actual heating degree days is the independent variable in the equation.

The term base load represents the intercept or the amount of consumption unrelated to heating degree days. The heat sensitive factor is the coefficient of heating degree days in the regression equation and represents the average change in sales occurring for a one degree change in heating degree days.

Page 5 shows the numerical values for these components.

NDD

Normal degree days are used to represent weather patterns that are "typical" for a given territory. Heating degree days for a single day are determined by taking the average of the high and low temperature for the day and subtracting it from 65 degrees. The Company proposes to develop normal heating degree days for SCE&G's service area by calculating the average of daily heating degree days for the thirty year period 1961-1990. A thirty year basis is consistent with the National Oceanic and Atmospheric Administration (NOAA) standard.

ADD

The actual degree days in the formula are based on the actual weather conditions experienced during the days in any particular billing cycle.

SUMMARY:

The weighted average base rate, heat sensitive factor, base load and normal heating degree days will all be determined at the time of approval of a WNA mechanism for purposes of calculating the WNA factor. The only variable that changes by cycle is the actual heating degree days. When actual heating degree days are greater than normal heating degree days, the WNA factor results in a per therm credit applicable to the customers' bills. When actual heating degree days are less than normal heating degree days, the WNA factor results in an addition to customers' bills.

The WNA will have no effect on the purchased gas cost portion of the customer's bill.

SOUTH CAROLINA ELECTRIC & GAS COMPANY
CALCULATION OF WEATHER NORMALIZATION ADJUSTMENT COMPONENTS

<u>FIRM RESIDENTIAL SERVICE - RATE 32</u>

R = .30298 ($.21899) + .69702 ($.28426)
= $.06635 + $.19813
= $.26448
HSF = .218 therms
BL = 11.8 therms

<u>FIRM GENERAL SERVICE - RATE 31</u>

R = .24734 ($.22550) + .75266 ($.29141)
= $.05578 + $.21933
= $.27511
HSF = .528 therms
BL = 99.1 therms

SOUTH CAROLINA ELECTRIC & GAS COMPANY

NORMAL HEATING DEGREE DAYS
SIX MONTH WINTER SEASON

	november 61-90 average	december 61-90 average	january 61-90 average	february 61-90 average	march 61-90 average	april 61-90 average	season totals 61-90 average
1	3.6	15.4	15.1	16.4	13.6	5.3	69.4
2	4.3	14.7	18.4	14.8	13.2	4.9	70.3
3	5.1	14.1	18.6	17.6	11.8	5.6	72.7
4	6.0	14.6	18.5	19.0	10.3	4.5	72.7
5	7.4	15.5	20.5	20.2	9.1	5.8	78.4
6	8.2	15.4	19.1	18.0	11.0	6.7	78.3
7	8.2	15.6	17.5	18.9	12.6	6.8	79.7
8	8.4	15.4	20.3	19.8	13.0	5.2	82.1
9	7.7	15.4	20.9	20.7	12.3	5.0	81.9
10	6.7	15.4	21.3	20.0	11.6	6.6	81.5
11	8.3	14.6	22.1	17.8	10.6	5.4	78.7
12	8.9	14.0	22.5	17.5	7.5	4.3	74.6
13	11.2	14.2	22.5	18.2	7.3	3.4	76.7
14	12.1	15.9	22.3	15.8	7.7	3.5	77.3
15	11.3	16.1	21.8	13.6	8.9	2.9	74.4
16	9.3	16.7	22.2	14.0	8.3	4.4	74.9
17	9.4	18.7	20.7	16.1	10.1	4.0	79.1
18	8.6	19.3	18.9	17.1	10.4	2.9	77.2
19	8.9	18.1	18.6	14.1	7.2	2.8	69.5
20	10.0	16.0	19.6	15.2	6.9	3.2	70.9
21	11.4	18.3	20.1	15.2	7.9	2.3	75.2
22	13.0	18.4	19.7	14.4	10.3	1.6	77.4
23	12.0	17.3	17.4	14.1	10.3	1.8	72.7
24	10.6	16.2	16.6	12.9	8.8	1.9	67.0
25	11.9	18.1	16.1	15.7	8.2	2.6	72.5
26	11.4	19.1	18.0	17.9	8.4	2.0	76.7
27	7.2	18.2	19.5	15.8	7.8	1.7	70.2
28	8.8	15.3	20.3	13.7	6.6	1.7	66.3
29	12.4	17.0	18.7	0.0	4.5	2.3	54.9
30	15.4	16.2	17.3	0.0	4.3	1.3	54.6
31	0.0	14.3	17.9	0.0	5.6	0.0	37.8
TOTAL	277.3	503.3	602.5	464.0	286.0	112.3	2245.4

APPENDIX B
DOCKET NO. 91-342-G
ORDER NO. 971

WASHINGTON NATURAL GAS COMPANY

February 9, 1993

Docket No. UG-920840

RESPONSE TO

WUTC Bench Request

SHEET NO. 1 OF 1

(with attachments)

Bench Requisition Request No. 2:

Please provide the Company's most recent Least Cost Plan.

Response:

Enclosed please find the Company's most recent Least Cost Plan (Volumes I and II).

Response Prepared By:
Ritchie Campbell 521-5224

WASHINGTON NATURAL GAS COMPANY

February 9, 1993

Docket No. UG-920840

RESPONSE TO
WUTC Bench Request

SHEET NO. 1 OF 2

Bench Requisition Request No. 3:

(a) Regarding construction work in progress (CWIP), for tax purposes how is interest taxed?

(b) Please show AFUCD rates, and how they are calculated.

Response:

(a) The book treatment and tax treatment of interest capitalized are the same. Thus there is no deferred federal income tax at the point interest is capitalized. The interest capitalized is also depreciated for both book and tax, and there would be some deferred federal income tax on differences due to accelerated depreciation.

(b) Please see Response to Data Request No. 237, Docket UG-920840 for AFUCD rates and how they are calculated. (Enclosed for your convenience.)

Response Prepared By:
Mike Dougherty 224-2256

WASHINGTON NATURAL GAS COMPANY

November 9, 1992
Docket No. UG-920840
RESPONSE TO
WUTC Data Request
Dated October 22, 1992
SHEET NO. 1 OF 1

Request No. 237, Re: AFUDC

Please provide support for the actual rates used for the calculation of AFUDC for each A rate change for the previous three years.

Response:

The actual rate used for AFUDC is based on the estimated cost of capital for the Company and has remained at 11.52% for the previous three years and has been in effect since the last rate case, Cause No. U-84-60.

Response Prepared By:
Stan Swanson 224-2250