February 26, 1993

Advice No. 501-F488

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 response to Bench Request No. 4 in UG-920840.

Very truly yours,

RITCHIE A. CAMPBELL
Director
Rates and Special Studies

Enclosures

CC: Robert Cedarbaum
       Chuck Adams
       Paula Pyron
       Carol Arnold
       Scott Johnson
       Mick Larson/Harry Grant

February 26, 1993

WASHINGTON NATURAL GAS COMPANY

Docket No. UG-920840	
RESPONSE TO WUTC Bench Request Dated February 11, 1993	
SHEET NO. 1 OF 4	

Bench Request No.4:

Perform Weather Normalization Adjustments for 3 different Schedule No. 23 customers based upon:

(A) actual January 1993 weather.
(B) if January would have been 10% warmer-than-normal
(C) if January would have been 10% colder-than-normal

Customer #1 = Average usage
Customer #2 = 50% < average
Customer #3 = 50% > average

Response:

The weather normalization adjustment formula (Supplemental Schedule No. 120, RAC-2, Sheet Nos. 47-49 of 49) was used to develop the attached worksheets, labeled "Scenario A," "Scenario B," and "Scenario C" for each hypothetical customer (#1, #2, and #3).

$$WNA = \frac{NDD-ADD}{ADD} * \frac{HRC\ (ADD)}{TAT} * WARF$$

WNA : Weather Normalization Adjustment per therm

NDD : Normal Degree Days for the month

ADD : Actual Degree Days for the month

HRC : Heating Response Coefficient for the Rate Schedule

TAT : Total Actual Therms used, on average, for a customer in the rate schedule during the month.

WARF : Weather Adjustment Recovery Factor for the rate schedule, which is calculated as the total gas price for the rate schedule less the cost of gas.

Response Prepared By:
Ritchie Campbell 521-5224

Bench Request No. 4: (cont.)

SCENARIO A - JANUARY 1993, actual weather was 19.5% colder than normal.

The determination of the per therm weather normalized adjustment factor for Rate Schedule 23 customers is found by:

$$\text{WNA} = \frac{753.2 - 900.0}{900.0} * \frac{.17472784 \ (900.0)}{160.358} * \$0.347170$$

$$\text{WNA} = -0.163111 * .980650 * \$0.347170$$

WNA = -$0.055532/therm for Rate Schedule 23 customers for the month of January.

Customer #1:   Usage equals 160.358 therms

Therefore Customer #1's weather adjusted bill would show a decrease of $8.91, calculated as follows:
-$0.055532 * 160.358 = -$8.905

Customer #2:   Usage equals 80.179 therms

Therefore Customer #2's weather adjusted bill would show a decrease of $4.45, calculated as follows:
-$0.055532 * 80.179 = -$4.452

Customer #3:   Usage equals 240.537 therms

Therefore Customer #3's weather adjusted bill would show a decrease of $13.36, calculated as follows:
-$0.055532 * 240.537 = -$13.357

Bench Request No. 4: (cont.)

SCENARIO B - JANUARY, 10% Warmer than Normal

The determination of the per therm weather normalization adjustment factor for Rate Schedule 23 customers is found by:

$$WNA = \frac{753.2 - 677.9}{677.9} * \frac{.17472784 \ (677.9)}{121.548} * \$0.347170$$

$$WNA = 0.111078 * .974496 * \$0.347170$$

WNA = $0.037579/therm for Rate Schedule 23 customers for the month of January.

Customer #1: Usage equals 121.548 therms

Therefore Customer #1's weather adjusted bill would show an increase of $4.57, calculated as follows: $0.037580 * 121.548 = $4.568

Customer #2: Usage equals 60.774 therms

Therefore Customer #2's weather adjusted bill would show an increase of $2.28, calculated as follows: $0.037580 * 60.774 = $2.284

Customer #3: Usage equals 182.322 therms

Therefore Customer #3's weather adjusted bill would show an increase of $6.85, calculated as follows: $0.037580 * 182.322 = $6.852

February 26, 1993

WASHINGTON NATURAL GAS COMPANY

Docket No. UG-920840

RESPONSE TO
WUTC Bench Request
Dated February 11, 1993

SHEET NO.
4 OF 4

Bench Request No. 4: (cont.)

SCENARIO C - JANUARY, 10% Colder than Normal

The determination of the per therm weather normalization adjustment factor for Rate Schedule 23 customers is found by:

$$WNA = \frac{753.2 - 828.5}{828.5} * \frac{.17472784\ (828.5)}{147.869} * \$0.347170$$

$$WNA = -0.090887 * .978988 * \$0.347170$$

$$WNA = -\$0.030890/therm \text{ for Rate Schedule 23 customers for the month of January.}$$

Customer #1:   Usage equals 147.869 therms

Therefore Customer #1's weather adjusted bill would show a decrease of $4.57, calculated as follows:
-$0.030890 * 147.869 = -$4.568

Customer #2:   Usage equals 73.934 therms

Therefore Customer #2's weather adjusted bill would show a decrease of $2.28, calculated as follows:
-$0.030890 * 73.934 = -$2.284

Customer #3:   Usage equals 221.803 therms

Therefore Customer #3's weather adjusted bill would show a decrease of $6.85, calculated as follows:
 -$0.030890 * 221.803 = -$6.852