

FLORIDA PUBLIC SERVICE COMMISSION  
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MEMORANDUM

August 22, 1996

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYO)

FROM: DIVISION OF ELECTRIC & GAS (GING, BULECZA-BANKS) *PM 15*  
DIVISION OF AUDITING & FINANCIAL ANALYSIS (MCNULTY) *WBM*  
DIVISION OF LEGAL SERVICES (CULPEPPER) *WDS CEBB*

RE: DOCKET NO. 960831-GU - WEST FLORIDA NATURAL GAS CO. -  
PETITION FOR APPROVAL OF A WEATHER NORMALIZATION  
ADJUSTMENT TARIFF *JDJ*

AGENDA: 09/03/96 - REGULAR AGENDA - TARIFF FILING - INTERESTED  
PERSONS MAY PARTICIPATE

CRITICAL DATES: 60-DAY SUSPENSION DATE: 09/14/96

SPECIAL INSTRUCTIONS: S:\PSC\EAG\WF\960831GU.RCM

CASE BACKGROUND

On July 16, 1996, West Florida Natural Gas (WFNG) requested approval of its Weather Normalization Tariff on an experimental basis. WFNG believes that this Weather Normalization Tariff will levelize revenues resulting from unpredictable changes in winter weather.

WFNG revenues are significantly affected by fluctuations in winter weather patterns. Because of its location in Northern and Central Florida, WFNG has substantial heat sensitive demand on its system. In colder than normal winters, WFNG has experienced increased therm sales and revenues due to the increased heating load in the residential and small commercial rate classes. In warmer than normal winters, WFNG has experienced decreased therm sales, with a corresponding decrease in revenues. These increases and decreases in revenues can lead to earnings fluctuations which could contribute to over and under earnings of the Company due to deviations from normal weather.

Brooklyn Union Gas Company introduced the first weather normalization clause in 1980. Since then, over thirty gas utilities in fourteen states have implemented weather normalization procedures. These states are: Alabama, California, Connecticut,

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Georgia, Kentucky, Maryland, New Jersey, New York, North Carolina, Ohio, South Carolina, Tennessee, Texas and Virginia. Interest in weather normalization appears to be growing. A recent survey conducted by the American Gas Association indicated that forty-four companies, operating in fifty-two jurisdictions across twenty-six states and Canada, have either filed for, or put weather normalization clauses into effect.

#### DISCUSSION OF ISSUES

**ISSUE 1:** Should the Commission approve West Florida Natural Gas Co.'s (WFNG) petition for approval of a Weather Normalization Adjustment Tariff (WNA) on an experimental basis? (GING)

**RECOMMENDATION:** Yes. The Commission should approve WFNG's petition for approval of a Weather Normalization Adjustment Tariff on an experimental basis.

**STAFF ANALYSIS:** WFNG's proposed weather normalization is a rate adjustment mechanism that offsets the impact of unusually cold or warm weather on its revenues and income. To compensate for deviations from normal weather, an adjustment factor is applied that increases or decreases base revenues on residential and commercial accounts. Customers with weather normalized rates, will have their bills adjusted downwards in unusually cold months and adjusted upwards during periods of unusually warm weather. The Weather Normalization Tariff will be in effect from November through April. This weather normalization clause protects WFNG against revenue and earnings instability resulting from weather fluctuations.

WFNG proposes a statistical formula for calculating each residential and commercial customer's WNA factor for each billing cycle (Attachment A, Page 9). It is the same formula which is currently employed by many other utilities in the gas industry. Inputs into the WNA factor for a particular billing cycle include Normal Heating Degree Days (NHDD), Actual Heating Degree Days (AHDD), the Heat Sensitivity Factor (HSP), and the Baseload Factor (BLF). AHDD is the difference between 65 degrees and the average of the high and low temperatures on a single day. NHDD is the difference between 65 degrees and the average of the high and low temperatures on a particular date over a 30 year time period.

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Thus, the difference between AHDD and NHDD yields a measure of the relative temperature of a particular day compared to the average temperature recorded on the same date during the previous 30 years. In addition to knowing the variation in current weather compared to normal weather, it is also necessary to know the impact of weather upon average usage. WFNG developed the HSF as a measure of a customer's change in therm consumption related to a one degree day change in heating degree days. Finally, WFNG estimated the baseload usage of its customers. Baseload usage includes all the non-weather sensitive end-uses of gas, which is essentially the same as the average usage during summer months when various space heating appliances are not in use. The proportion of base load usage must be estimated so that the HSF is applied to only the portion of a customer's load which is heat sensitive. WFNG combines NHDD, AHDD, HSF, BLF, and the class-specific gas rate (dollars per therm) into a single equation which estimates the WNA factor. This factor, or rate adjustment, is multiplied by a customer's usage in order to reverse the impact of colder or warmer than normal weather on the customer's bill.

The Company's source of the weather data utilized in calculating NHDD and AHDD is the National Oceanic and Atmospheric Administration (NOAA). The source of usage and customer data is WFNG's company records.

Staff analyzed the data and methodology utilized by WFNG to implement weather normalization. WFNG's development of the WNA factor is consistent with similar weather riders used by utilities in other states. Staff independently verified all of the weather data and believes it is accurate and complete. Likewise, staff reviewed the Company's billing data and believes that it is consistent with data received in previous filings. Staff also reviewed the inputs and methods used to develop both the HSF and BLF and believes that these factors were properly estimated. Thus, Staff believes that WFNG's proposed WNA rider will effectively reverse the impact of temperature fluctuations upon residential and commercial customer revenues.

Staff recognizes that the WNA may not send the appropriate market signal to customers, however, the typical adjustment to a customers' bill is expected to be less than two dollars. Staff does not expect any major impacts related to market signals. The benefits achieved through revenue stability will extend to all customers as well as the Company. Staff believes that because the Tariff is being filed on an experimental basis, it will give Staff an opportunity to reevaluate the Tariff's effectiveness when the three-year experimental period is over. Based on the fact that WFNG is located in a weather sensitive

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region of state, resulting in revenue fluctuations which coincide with weather patterns, and the fact that similar WNAs are widely used by many utilities, staff believes the proposed rider is appropriate.

The Company intends to notify its customers with a bill stuffer in October to explain the intent of the WNA. The amount of the WNA will appear as a separate line item on the customers bill. The Company will report to the Commission for surveillance purposes, the total amount of adjustments made pursuant to the WNA Tariff.

Staff notes that if the Weather Normalization Tariff had been in effect this past winter, residential customers would have paid \$381,355 less for natural gas service, and commercial customers would have paid \$63,413 less.

**ISSUE 2:** If approved, when should the new tariff changes take effect? (GING)

**RECOMMENDATION:** The effective date should be the date of the Commission vote approving the new tariff. The approved tariff should remain in effect pending resolution of any protest that may be filed.

**STAFF ANALYSIS:** The petitioner has requested that the tariff become effective at the time of the Commission vote. The staff concurs with the requested effective date. If the approval is protested, staff recommends that the tariff remain in effect pending resolution.

**ISSUE 3:** Should this docket be closed? (CULPEPPER)

**RECOMMENDATION:** Yes. If no substantially affected person files a protest within 21 days of the issuance of the order, the docket should be closed. If a protest is filed within 21 days from the issuance date of the order, the tariff should remain in effect with any increase held subject to refund, pending resolution of the protest.

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**STAFF ANALYSIS:** If no substantially affected person files a protest within 21 days of the issuance of the order, the docket should be closed. If a protest is filed within 21 days from the issuance date of the order, the tariff should remain in effect with any increase held subject to refund, pending resolution of the protest.

Attachment A

## RIDER WNA

### WEATHER NORMALIZATION ADJUSTMENT

#### Availability

Throughout the service area of the Company.

#### Applicability

The rates for gas sales service provided to all customers served under Rate Schedules RS and CS shall be subject to a weather normalization adjustment. The weather normalization adjustment will reflect the impact of degree day variations from normal levels, as determined on a revenue month basis, for the months of November through April, inclusive. The adjustment will be applied to a Customer's total gas consumption billed during the above defined period, on a cents per therm basis. The adjustment will not be applied to a Customer's bill in a revenue month where the cumulative actual degree day total falls within the Degree Day Dead Band.

#### Definition of Terms Used in This Rider

1. Commission - the Florida Public Service Commission.
2. Relevant Rate Order - the final order of the Commission in the most recent base rate case of the Company in which the weather related factors applicable to this Rider are utilized to determine normalized test year revenues, or the most recent final order of the Commission specifically prescribing the factors and procedures to be used in the application of this Rider.
3. Heating Degree Days (HDD) - the difference between 65 F and the average outdoor dry bulb temperature for a given day. A day is defined as a twenty-four hour period corresponding to the data recording period at the National Oceanic and Atmospheric Administration (NOAA) weather observation stations located at the Bay County Water Treatment Plant (Station ID # 08-6842-1) and the Ocala Water Treatment Plant (Station ID # 08-6414-3) respectively.

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4. **Actual Heating Degree Days (AHDD)** - the actual difference between 65 F and the average outdoor dry bulb temperature for a particular day or accumulation of days over a given period, based on data obtained from the National Oceanic and Atmospheric Administration (NOAA) weather observation stations identified in the HDD methodology defined above. AHDD are always zero when the average temperature for a particular day is greater than 65 F.
5. **Normal Heating Degree Days (NHDD)** - for any given calendar day the average of degree days for that calendar day over the rolling thirty fiscal year period ending in June of a given year, as determined from the records of the Climate Interactive Rapid Retrieval Users System (CIRRUS) based on data obtained from the National Oceanic and Atmospheric Administration (NOAA) weather observation stations identified in the HDD methodology defined above. Subsequent to the effective date of this Rider, NHDD shall be adjusted on an annual basis to correspond to the annual update of CIRRUS normal heating degree day data.
6. **Heat Sensitivity Factor (HSF)** - an estimate of the increase or decrease in a Customer's therm consumption for weather sensitive end-uses, occurring as the result of a one degree day change in heating degree days. A separate HSF shall be established for each applicable rate classification. Subsequent to the effective date of this Rider, the HSF shall be amended from time to time as approved by the Commission in a Relevant Rate Order.
7. **Baseload Factor (BLF)** - an estimate of the number of therms per Customer consumed for end-uses not substantially affected by weather conditions. A separate BLF shall be established for each applicable rate classification. Subsequent to the effective date of this Rider, the BLF shall be amended from time to time as approved by the Commission in a Relevant Rate Order.
8. **Degree Day Dead Band** - a range equal to two per-cent (2%) above or below the cumulative Normal Heating Degree Day total for a revenue month period.



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**Computation of the Weather Normalization Adjustment**

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

$$WNA_i = R_i \frac{(HSF_i (NHDD - AHDD))}{(BLF_i + (HSF_i \times AHDD))}$$

Where:

- i* = the particular Rate Schedule to which the Weather Normalization Adjustment is applied.
- $WNA_i$  = Weather Normalization Adjustment factor for the *i* Rate Schedule expressed in cents per therm.
- $R_i$  = base rate less the cost of gas (Energy Charge) for the *i* Rate Schedule approved by the Commission in the Company's most recent base rate case.
- NHDD = normal billing cycle heating degree days.
- AHDD = actual billing cycle heating degree days.
- $HSF_i$  = heat sensitivity factor for the *i* Rate Schedule. HSF's for the applicable Rate Schedules shall be as identified below unless amended by the Commission in a Relevant Rate Order.

<u>WFNG Division</u>	<u>Rate Schedule</u>	<u>HSF</u>
Panama City	RS	0.1099
Panama City	CS	0.4872
Ocala	RS	0.2346

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BLF<sub>*i*</sub> = base load factor for the *i* Rate Schedule. BLF's for the applicable Rate Schedules shall be as identified below unless amended by the Commission in a Relevant Rate Order.

<u>WFNG Division</u>	<u>Rate Schedule</u>	<u>BLF</u>
Panama City	RS	14.05
Panama City	CS	299.17
Ocala	RS	16.58
Ocala	CS	413.91