Exhibit No.: _____
Issues: Revenue Adjustments
and Rate Design
Witness: F. Jay Cummings
Sponsoring Party: Missouri Gas Energy
Case No.: GR-2001-292

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MISSOURI PUBLIC SERVICE COMMISSION

MISSOURI GAS ENERGY

CASE NO. GR-2001-292

DIRECT TESTIMONY OF

F. JAY CUMMINGS

Jefferson City, Missouri

November 7, 2000

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is F. Jay Cummings. My business address is 504 Lavaca, Suite 800, Austin, Texas 78701.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am Vice President of Pricing and Economic Analysis for Southern Union Company, which includes the Missouri Gas Energy ("MGE" or "Company") division.

Q. PLEASE SUMMARIZE YOUR EDUCATION AND EXPERIENCE.

A. I have a B.A. degree in economics from Colgate University and a Ph.D. in economics from the University of Virginia. In 1991, I joined Southern Union Gas as its Director of Rates and Regulatory Affairs and became Vice President later that year. In 1994, I became Vice President for Southern Union Company to reflect the expansion of my regulatory responsibilities to include MGE.

Prior to joining Southern Union, I was employed by the Arizona Corporation Commission, the state's utility regulatory agency, as the Utilities Division Chief, Economics and Rates Section (1985); Chief, Economics and Research Section

(1985-88); and Assistant Director (1988-91). From 1973 through 1985, I was on the economics faculties of George Mason University (1973-75) and the University of Texas at Dallas (1975-85). My teaching and research focused on applied microeconomic analyses, which resulted in professional journal publications and conference and seminar presentations. I have submitted testimony in regulatory proceedings in Missouri, Arizona, Texas, and Oklahoma.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I explain the revenue adjustments used in developing MGE's revenue requirement. Next, I discuss the proposed allocation of the revenue increase to customer classes and the proposed rate structures to collect the increases from each class. Finally, I explain MGE's proposed Customer Service Effectiveness/Gas Safety Program Experimental Incentive Plan.

1. REVENUE ADJUSTMENTS

Q. WHAT ARE THE ADJUSTMENTS TO TEST YEAR REVENUE THAT YOU ARE SPONSORING?

A. I am sponsoring Schedules H-1 and H-2 included with the direct testimony of Company witness Noack. Schedule H-1 derives the test year margin by removing gross receipts taxes, unbilled revenue, and cost of gas revenue from total per book revenue. Schedule H-2 contains the various adjustments to test year margin to make it representative for the purpose of setting rates in this proceeding.

Q. PLEASE EXPLAIN THE FIRST ADJUSTMENT ON SCHEDULE H-2, THE WEATHER NORMALIZATION ADJUSTMENT.

A. This adjustment increases test year margin in recognition of the fact that MGE's volumes and resulting revenues were abnormally low because temperatures in the test year were warmer than normal. Weather was about 17% warmer than normal for Kansas City and St. Joseph and about 14% warmer than normal for Joplin during the test year. By making the weather normalization adjustment, rates are subsequently designed to produce the revenue level anticipated under normal temperature conditions, conditions that are expected to be in effect, on average, after new rates are established.

The weather-related volume adjustment is based on statistically determined relationships between usage (in Ccf) and temperatures (measured by heating degree days), consistent with methods used by MGE and the Commission Staff in the last two rate cases (Case Nos. GR-96-285 and GR-98-140). The difference between volumes statistically explained with actual heating degree days and volumes statistically explained with normal heating degree days becomes the volume adjustment. For the residential, small general service (commercial and industrial), and large general service (commercial and industrial) classes, the statistical relationships were derived from test year billing cycle data separately for each customer class and for each of three geographic regions (Kansas City, St. Joseph, and Joplin).

For the large volume service class, individual customer analyses using the past three years of usage data, when available, were conducted to derive temperature-related volume adjustments that were summed to arrive at the class adjustment. Individual customer analyses were performed because of the diversity among customers within the class, and three years of usage data were used to provide a long enough period to conduct meaningful statistical analyses.

The volume adjustments for each customer class are priced at current rates to arrive at the weather normalization revenue adjustment. The test year revenue adjustment increases test year margin by $8,682,198.

Q. HOW IS NORMAL WEATHER DETERMINED?

A. The Company has used an average of the last 20 years of weather experience to derive normal heating degree days. In MGE's last two rate cases, normal weather was based on 1961-90 temperature experience. The 20-year measure of normal used in this case is appropriate because it is up-to-date, incorporating the last decade of weather experience, and because historically it proves to be a better predictor of weather actually experienced than the 1961-90 measure. Using this better predictor of actual weather experience will improve the Company's opportunity to realize the level of revenues and return authorized by the Commission in this proceeding. In addition, the 20-year period is long enough that it is not unduly influenced by one or two years of extreme temperature conditions.

Q. PLEASE EXPLAIN THE GROWTH ANNUALIZATION ADJUSTMENT, SHOWN ON LINE 3 OF SCHEDULE H-2.

A. For each customer class (residential, small general service, and large general service) and geographic region, this adjustment annualizes growth that occurred during the test year by adjusting bill counts and volumes in each month of the test year to the levels that would have been observed had the growth by the end of the test year occurred by that month. For each class and region, statistical analyses of monthly bill counts are used to determine bill count growth rates. Pricing these adjustments at current rates results in an increase in test year margin of $658,918.

Q. PLEASE EXPLAIN THE REVENUE ADJUSTMENTS ON LINES 4 AND 5 OF SCHEDULE H-2.

A. Line 4 captures the net effect of customers switching from general service to large volume service. Large volume service revenues are increased to the level that would have been obtained if these customers had received large volume service for the entire test year, and general service revenues are decreased for the portion of the year that these customers were served under general service rate schedules. The net effect of these changes is ($9,159), or $78,663 of added large volume service revenue and $87,822 of reduced general service revenue. Line 5 recognizes the loss in revenue from large volume service customers who discontinued service from the Company during the test year, a loss of $37,498.

Q. PLEASE EXPLAIN THE ADJUSTMENT TO ANNUALIZE FLEX RATE CUSTOMER REVENUE.

A. This adjustment on line 6 of Schedule H-2 annualizes the flex revenues received from three customers whose contract rates changed during and/or subsequent to the end of the test year by adding $56,948 to test year margin. Pursuant to the tariff, the Company negotiates discounted rates with flex rate customers in order to retain them in the face of bypass opportunities that they would otherwise exploit. By retaining these customers, the resulting flex rate revenue offsets the increase required from other customers.

Q. PLEASE EXPLAIN THE ECONOMIC DEVELOPMENT DISCOUNT ADJUSTMENT SHOWN ON LINE 7 OF SCHEDULE H-2.

A. Under the Economic Development Rider ("EDR") in the Company's tariff, economic development rate discounts decline each year over a five-year period, after which full tariffed rates are applied. This revenue adjustment is composed of two parts. First, the difference between revenues computed at tariffed rates in effect at the end of the test year and those revenues at the EDR rates is added to test year revenues. This difference is $3,797. Next, the annualized amount of this difference at the discount levels in effect at the end of the test year, or $13,917, is subtracted from this adjusted level of test year revenues. The net adjustment becomes ($10,121). In effect, the adjustment causes customers to bear the level of discounts prevailing at the end of the test year. While this EDR adjustment would typically be a positive adjustment that adds to revenue as a result of annually

declining discount levels, the annualized discount grows in this case because one of the two customers served under the Rider did not become eligible until January 2000 with the customer's eligibility based on an annual usage threshold and the discount applied thereafter.

Q. PLEASE EXPLAIN THE ADJUSTMENT TO REFLECT SERVICE CHARGE CHANGES, AS SHOWN ON LINE 8 OF SCHEDULE H-2.

A. To the extent that the costs of specific services are assigned to those customers receiving these services, these costs do not have to be borne by other customers. Consistent with a movement toward this cost causation principle, MGE proposes to increase the standard reconnect fee from $29 to $40 (and the $50 reconnect fee after turn off at the curb and the $100 fee after turn off at the main to $61 and $111, respectively). The Company also proposes to institute a new service connection fee of $40 and a transfer fee of $6. Based on test year experience, these new and increased fees would generate $2,072,691 in revenue. The adjustment on line 8 of Schedule H-2 increases revenue by this amount, thereby reducing the amount of MGE's revenue requirement that must be collected from recurring monthly service charges by this same amount.

Q. MGE'S CURRENT TARIFF PROVIDES FOR A DISCOUNTED CUSTOMER CHARGE FOR CERTAIN LARGE VOLUME SERVICE METER CONFIGURATIONS. PLEASE EXPLAIN THIS PROVISION AND WHETHER MGE PROPOSES ANY CHANGE IN THE PROVISION.

A. As part of the settlement agreement approved by the Commission in Case No. GR-98-140, large volume customers who have more than two meters at a single address or location receive a 50 percent discount on the customer charges on each meter in excess of two meters. As part of the settlement, the Company agreed to conduct a study to determine if there are cost reductions or economies of scale in serving these multimeter customers. MGE's study indicates that no material economies exist in serving these customers. Even though the study does not provide a cost basis for continuation of the discount, the Company proposes to grandfather current customers (at June 30, 2000) who receive the discount. By granfathering the discount arrangement, sizable impacts on a few customers are avoided. In the event that the Commission decides to eliminate the discount, $73,674 would be added to MGE's adjusted test year revenue in determining MGE's revenue requirement.

2. REVENUE ALLOCATION AND RATE DESIGN

Q. PLEASE DESCRIBE THE COMPANY'S APPROACH TO SPREADING THE REQUIRED REVENUE INCREASE TO CUSTOMER CLASSES.

A. The revenue allocation and rate design portion of the rate setting process is composed of two steps: (1) allocating the required revenue increase to customer

classes, and (2) designing rate structures within each class that will enable MGE a reasonable opportunity to derive the authorized revenue increase from each customer class. In each of MGE's prior two rate cases, the Commission spread the required revenue increase proportionately to each of the customer classes on the basis of existing class revenues. The Company proposes to continue the Commission's expressed preference in that regard in this case.

Typically, both cost of service studies and other considerations are used by decision makers in allocating the revenue increase to classes. Cost of service study results may certainly support shifts in revenue responsibility among customer classes. For example, in each of the last two rate cases, MGE's cost of service studies showed that the residential class should bear a more than proportional increase in revenue responsibility. However, results of cost of service study are only one factor typically considered in making a decision on how to spread a revenue increase. Other factors, including fairness, customer acceptance, stability, gradualism, and social considerations, are considered in reaching a decision. Furthermore, cost of service studies necessarily entail numerous assumptions, and their preparation is not a science. As a result, cost of service study findings tend to vary widely among analysts. Without clear, and with often conflicting, guidance from cost of service studies, the decision-maker naturally focuses on other factors in reaching class revenue allocation decisions. MGE believes that it is reasonable for the Commission to spread the required increase proportionately to all customer classes on the basis of existing class revenues. This choice is fair and promotes

manageable rate changes, i.e. gradualism. The results of the proposed class revenue allocation are reflected on Schedule FJC-1.

The next step in the revenue allocation and rate design process involves establishing rate structures for each customer class to obtain the required revenue allocated to each class. MGE proposes rate structures that are beneficial to its customers compared to alternative structures and improve the Company's opportunity to achieve the revenue level authorized by the Commission in this proceeding.

Q. PLEASE DESCRIBE THE IMPORTANT FACTORS INVOLVED IN MGE'S PROPOSED RESIDENTIAL RATE DESIGN.

A. MGE's proposed design tempers, to some degree, the significant impact weather variations have on residential customer bills and on the Company's revenue stream. The current residential rate design leads to substantial fluctuations in revenue generation as a result of weather variations. For example, MGE's margin during the test year was approximately $8.7 million below the level that would be achieved with normal weather. Of this total, the residential margin shortfall amounted to about $5.9 million. In fact, in each of its past three fiscal years (years ending in June), the Company's margin fell well short of the levels anticipated in setting rates in MGE's general rate proceedings.

While these recent results may appear to be beneficial to customers, their continuation cannot be guaranteed. If, for example, weather experienced for the year ended June 30, 1997 repeated itself in the test year, residential customers alone would have paid about $9.3 million more than they actually paid in the test year.

Simply stated, customers are subject to dramatic swings in their bills and the Company is subject to dramatic swings in its revenue collection due to weather variations with the current rate structure. Both the Company and its customers will be better off if the sensitivity of the rate structure to weather variations is reduced. Rather than reducing the weather sensitivity of the residential rate structure through increased customer charges, MGE proposes a new rate design. The proposed rate design replaces the fixed customer charge structure with a minimum monthly bill structure that includes 20 Ccf of usage in the monthly minimum bill. The minimum bill structure should be more appealing to customers because they receive some usage in return for a fixed charge and because it reduces weather sensitivity in their bills. The 20 Ccf usage level approximates average baseload, or non-weather sensitive, usage level for residential customers.

Q. PLEASE ILLUSTRATE THE IMPACTS OF THE PROPOSED RATE STRUCTURE COMPARED TO COLLECTING THE INCREASE THROUGH A STRUCTURE WITH THE CURRENT CUSTOMER CHARGE AND HIGH VOLUMETRIC RATES.

A. The average residential bill over the year increases about $5.20 per month under the proposed rate design. With this rate design, the monthly increases (with normal weather) range from $5.11 per month in January to $5.37 per month in August. By contrast, a rate design based on no customer charge increases and only volumetric rate increases produces monthly increases that range from $1.29 per month in August to $12.78 per month in January. In January, the coldest month of the year, the impacts of weather variations are magnified if minimum bill structure is not adopted. The following table shows average January residential bill impacts with normal, colder than normal, and warmer than normal weather:

	Increase With:	
	Proposed Rate Design	Volumetric Based Increase
Normal Weather	$ 5.11	$ 12.78
25% Colder than Normal	5.07	15.76
25% Warmer than Normal	5.15	9.81

Customers will pay more under the proposed rate design in the months of May through November. However, bills are relatively low in these warmer weather months due to low usage. By paying more during this time of the year, customers obtain greater certainty about the size of their bills in the winter, a time when bills are not only high but also are extremely variable, especially with the current rate structure.

Q. DESCRIBE THE REMAINDER OF THE PROPOSED RATE DESIGN.

A. Similar to the residential rate structure, MGE proposes to restructure small general service ("SGS") rates to replace the customer charge with a minimum bill structure that includes 50 Ccf of usage. Diversity among customers within the class is shown by class average baseload SGS usage of the low-50 Ccf level in St. Joseph, to the mid-50 Ccf level in Joplin, to the mid-60 Ccf level in Kansas City. The 50 Ccf level included in the minimum bill represents a conservative approximation of minimum baseload usage.

The current SGS rate structure consists of a declining block at 600 Ccf and seasonal rate differentials. Under the proposed structure, the declining block is eliminated while the seasonal differential is maintained.

Currently, the large general service ("LGS") rate schedule has a seasonal structure, and the large volume service ("LVS") rate structure has seasonal rate and declining block features. Under the proposed rates, these basic structures are retained. Customer charges for each of these classes are increased to a greater extent than are the commodity charges for both classes.

Q. PLEASE DESCRIBE THE RESIDENTIAL AND GENERAL SERVICE BILL IMPACTS RESULTING FROM THE PROPOSED RATE DESIGN.

A. The following table shows the average residential and small general service customer bill impacts for average usage over the test year and for January bills, both based on the test year average cost of gas:

Customer Class	Average Monthly Bill				Average January Bill			
			Change				Change	
	Current	Proposed	$	%	Current	Proposed	$	%
Residential	47.48	52.68	5.20	11	100.98	106.09	5.11	5
Small General Service	118.38	127.07	8.69	7	265.92	274.05	8.13	3
Large General Service	2,279.68	2,448.35	168.67	7	5,109.19	5,442.24	333.05	7

3. CUSTOMER SERVICE EFFECTIVENESS/GAS SAFETY PROGRAM EXPERIMENTAL INCENTIVE PLAN

Q. PLEASE DESCRIBE THE PURPOSE OF THE CUSTOMER SERVICE EFFECTICENESS/GAS SAFETY PROGRAM EXPERIMENTAL INCENTIVE PLAN ("CSE/GSIP").

A. Prior to and since the Company acquired its Missouri properties in 1994, the Commission has authorized Accounting Authority Orders ("AAOs") to offset, to some degree, the impact of required safety line replacement program ("SLRP") investments on MGE's earnings between rate cases. The CSE/GSIP provides an alternative to the issuance of a new AAO upon the completion of this proceeding. (In the event that the Commission does not authorize the CSE/GSIP, MGE requests

that the Commission include in its order in this case a new SLRP AAO.) MGE believes that the CSE/GSIP is preferable to the AAO-approach. The CSE/GSIP ties safety program rate recognition to achievement of effective customer service. Furthermore, it is simple to calculate and administer, and it eliminates debate about AAO-related issues in subsequent rate cases. By tying safety program rate recognition to effective customer service, MGE will have strong incentives to provide quality customer service, while MGE and its customers benefit through the provision and receipt of safe, reliable, and quality customer service.

Q. PLEASE DESCRIBE HOW THE CSE/GSIP WORKS.

A. Each July 1 for a three-year period beginning July 1, 2002, MGE becomes eligible to receive rate adjustments reflecting the return, depreciation expense, and property taxes, all at rates established by the Commission in this proceeding, on required safety program investments not yet recognized in rates. In order to recover any of the eligible amounts in a given year, MGE must meet both Abandoned Call Rate ("ACR") and Average Speed of Answer ("ASA") standards for the prior calendar year. These standards are those used as the starting points that were then adjusted upward in setting the potential penalty zones related to customer service standards in the Commission's approval of Southern Union's Pennsylvania Enterprises, Providence Energy Corporation, Valley Resources, and Fall River Gas Company mergers (Case Nos. GM-2000-43, GM-2000-500, GM-2000-502, and GM-2000-503).

Maximum recovery occurs only if MGE exceeds both of the customer service measures. In the event of maximum recovery, MGE would be allowed to recover 98 percent of the potential amount available for recovery. By not allowing full recovery, MGE seeks to address the possible perception that certain operations and maintenance expenses may be reduced as a result of safety program service line and main replacements.

The recovery level is reduced to 93 percent in the event that only one of the two standards is exceeded (and the other standard is met) and amounts to only 88 percent of the potential amount if MGE meets, but does not exceed, each standard. As a result, MGE has an incentive not only to meet but to exceed the customer service standards used by the Commission in the recent merger cases. In the event that MGE falls short on either of the standards, no recovery is permitted in that year; however, 75 percent of the eligible amount would be carried over to the next year for possible recovery. This reduced, carried-over amount recognizes the fact that the ACR and ASA are not completely within MGE's control. For example, spikes in gas costs or extremely cold weather could deluge the call center for a period of time, making achievement of an annual standard tenuous. While customer service is temporarily not at levels either MGE or the Commission would desire during these periods, staffing the call center to meet these unusual events would not be in the interests of customers because the added expense would have to be reflected in customer rates on a continuing basis, whether or not the events occurred in any given year.

After determining the amount of actual recovery permitted under the CSE/GSIP, this amount is spread to customer classes based on the proportion of revenue derived from the residential, SGS, LGS, and LVS classes resulting from resolution of this rate case. Customer charges/minimum bills would be increased to recover the amount from each class. This per-customer recovery simplifies the administration of the CSE/GSIP.

For each year's filing, MGE would provide the Commission Staff and Office of Public Counsel with the calculations and support data by May 15. This material should be sufficient to enable verification of MGE's proposed rate changes that would become effective on July 1.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, at this time.

Schedule FJC-1

MISSOURI GAS ENERGY
TEST YEAR ENDED JUNE 30, 2000

ALLOCATION OF REVENUE INCREASE TO CLASSES

Customer Class	Unadjusted Revenue	Revenue Adjustments	Adjusted Revenue	Percentage of Total	Revenue Increase
Residential	85,014,563	6,288,247	91,302,810	69.708%	27,453,666
Small General Service	23,461,979	2,440,520	25,902,499	19.776%	7,788,572
Large General Service	2,778,941	281,104	3,060,046	2.336%	920,119
Large Volume Service	10,436,079	274,467	10,710,546	8.177%	3,220,533
Unmetered Gas Lights	3,035	0	3,035	0.002%	913

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's Tariff Sheets Designed to Increase Rates for Gas Service in the Company's Missouri Service Area.	))))	Case No. GR-2001-292

AFFIDAVIT OF F. JAY CUMMINGS

STATE OF TEXAS)
) ss.
COUNTY OF TRAVIS)

F. Jay Cummings, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form, to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

F. JAY CUMMINGS

Subscribed and sworn to before me this 3rd day of November 2000.

Notary Public

My Commission Expires: July 3, 2001

LORI GAMMAGE
Notary Public, State of Texas
My Commission Expires
JULY 3, 2001