Exhibit No.: _____
Issues: Rate Class Restructuring,
Class Revenue Allocation,
and Rate Design
Witness: Russell A. Feingold
Sponsoring Party: Missouri Gas Energy
Case No.: GR-2009-_____
Date Testimony Prepared: April 2, 2009

MISSOURI PUBLIC SERVICE COMMISSION

MISSOURI GAS ENERGY

CASE NO. GR-2009-_____

DIRECT TESTIMONY OF

RUSSELL A. FEINGOLD

Jefferson City, Missouri

April 2, 2009

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Russell A. Feingold and my business address is 2525 Lindenwood Drive, Wexford, Pennsylvania 15090.

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

A. I am employed by Black & Veatch Corporation ("Black & Veatch") as a Vice President and I lead the Rate & Regulatory Advisory Group of its Enterprise Management Solutions ("EMS") Division.

Q. PLEASE DESCRIBE THE FIRM OF BLACK & VEATCH.

A. Black & Veatch has provided comprehensive engineering and management services to utility, industrial, and governmental entities since 1915. EMS is the management consulting division of Black & Veatch. EMS delivers management consulting solutions in the energy and water sectors. Our services include broad-based strategic, regulatory, financial, and information systems consulting. In the energy sector, EMS delivers a variety of services for companies involved in the generation, transmission, and distribution of electricity and natural gas. From an industry-wide perspective, Black & Veatch has extensive experience in all aspects of the North American natural gas industry, including utility costing and pricing, gas supply and transportation planning, competitive market analysis and regulatory practices and

policies gained through management and operating responsibilities at gas distribution, pipeline and other energy-related companies, and through a wide variety of client assignments. Black & Veatch has assisted numerous gas distribution companies located in the U.S. and Canada.

Q. WHAT HAS BEEN THE NATURE OF YOUR WORK IN THE UTILITY CONSULTING FIELD?

A. I have over thirty-three (33) years of experience in the utility industry, the last thirty (30) years of which have been in the field of utility management and economic consulting. Specializing in the gas industry, I have advised and assisted utility management, industry trade and research organizations and large energy users in matters pertaining to costing and pricing, competitive market analysis, regulatory planning and policy development, gas supply planning issues, strategic business planning, merger and acquisition analysis, corporate restructuring, new product and service development, load research studies and market planning. In addition to my presentation of expert testimony in utility regulatory proceedings that was just discussed, I have spoken widely on issues and activities dealing with the pricing and marketing of gas utility services. Further background information summarizing my work experience, presentation of expert testimony, and other industry-related activities is included in Schedule RAF-1.

Q. MR FEINGOLD, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION OR ANY OTHER REGULATORY AUTHORITY?

A. Yes. I have presented expert testimony before the Federal Energy Regulatory Commission ("FERC") and numerous state and provincial regulatory commissions, including the

Missouri Public Service Commission (the "Commission"). My expert testimony has dealt with the costing and pricing of energy-related products and services for gas and electric distribution and gas pipeline companies. In addition to traditional utility costing and rate design concepts and issues, my testimony has addressed revenue decoupling concepts and other innovative ratemaking approaches, gas transportation rates, gas supply planning issues and activities, market-based rates, Performance-Based Ratemaking ("PBR") concepts and plans, competitive market analysis, gas merchant service issues, strategic business alliances, market power assessment, merger and acquisition analyses, multi-jurisdictional utility cost allocation issues, inter-affiliate cost separation and transfer pricing issues, seasonal rates, cogeneration rates, and pipeline ratemaking issues related to the importation of gas into the United States.

Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of Missouri Gas Energy ("MGE" or the "Company").

1. PURPOSE OF TESTIMONY

Q. FOR WHAT PURPOSE HAVE YOU BEEN RETAINED BY MGE?

A. I have been retained by MGE as a consultant in the area of utility rate design and related regulatory matters. Specifically, MGE has requested that Black & Veatch provide assistance with the development of its: (1) measure of normal weather for purposes of adjusting its base rates for the effect of weather (Company witnesses Dr. Robert E. Livezey and Larry W. Loos will cover this topic in their testimonies); (2) revenue adjustments to weather normalize its gas volumes and to annualize its current level of customers (Company witness Loos will

cover this topic in his testimony); (3) cash working capital allowance (Company witness Robert L. O'Brien will cover this topic in his testimony); (4) annual depreciation rates for certain plant accounts (Company witness Thomas J. Sullivan will cover this topic in his testimony); (5) restructuring of current rate classes; (6) class revenue allocation; and (7) rate design proposals.

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

A. The purpose of my testimony is to present and explain the proposed restructuring of the Company's current rate classes, its class revenue allocation, and its rate design proposals.

Q. PLEASE SUMMARIZE THE KEY POINTS OF YOUR TESTIMONY.

A. The key points of my testimony are summarized as follows:

- The Company has proposed to restructure its existing Small General Service ("SGS") and Large General Service ("LGS") rate classes to establish new SGS and LGS rate classes to achieve more homogeneous rate classes to better reflect the recovery of costs through rates.
- Under the Company's class revenue proposal, the Residential Service ("RS") rate class will receive an increase in base revenues of $27,654,329, the new SGS rate class will receive an increase of $2,835,461, the new LGS rate class will receive an increase of $883,396, and the LVS rate class will receive an increase of $1,041,920 in base revenues.
- The Company has proposed to establish a Straight Fixed-Variable ("SFV") rate structure for its new SGS rate class, and the utilization of traditional rate structures

for its new LGS rate class and its existing LVS rate class - with an increased emphasis on recovering the Company's fixed costs of delivery service through its Fixed Monthly Charges.

- The Company has proposed to eliminate the seasonal differentials in the Volumetric Delivery Charges contained in its current SGS, LGS, and LVS rate classes.

2. RATE CLASS RESTRUCTURING

Q. PLEASE EXPLAIN THE COMPANY'S PROPOSAL TO RESTRUCTURE ITS EXISTING RATE CLASSES.

A. The Company has proposed to restructure its existing SGS and LGS rate classes to establish new SGS and LGS rate classes to achieve more homogeneous rate classes to better reflect the recovery of costs through rates. As a general proposition, it is good ratemaking policy to establish a utility's rate classes so that they exhibit relatively homogenous load and cost characteristics where feasible. This enables the derivation of average unit rates that have broad applicability to the customers served under these rate classes. Where this outcome is not possible, the variation in customers within a particular rate class can be accommodated through intra-class rate design concepts. Therefore, the objective in this class restructuring process was to derive a new SGS rate class that exhibited greater customer homogeneity than in the Company's existing SGS rate class in order to apply an SFV rate structure. Because it would be necessary to transfer certain larger customers out of the SGS rate class into a different rate class, it was concluded that the customers served under the Company's LGS rate class should also be reviewed in a manner similar to that of the SGS rate class.

The variation in the load characteristics of customers served under the existing SGS rate confirmed the degree of customer diversity that is present within this rate class. Based on this review of the customers served under the Company's existing SGS rate class and a review of customers served under the Company's existing LGS rate class, it was determined that new SGS and LGS rate classes should be established. In this regard, it was further determined that certain larger customers from the existing SGS class needed to be reclassified to the new LGS rate class, and that certain smaller customers from the existing LGS rate class needed to be reclassified to the new SGS rate class. Schedule RAF-2 illustrates the reclassification of customers and annual gas volumes by rate class under the Company's rate class proposal and the resulting average annual use per customer.

Q WHAT WAS THE RESULT OF THE COMPANY'S RATE CLASS RESTRUCTURING PROCESS?

A. The Company's existing SGS rate class was split into two separate groups, with one group composed of smaller customers with gas usage characteristics similar to those of MGE's Residential Service customers and the other group composed of moderate and larger sized commercial and industrial customers. The former group will remain in the SGS rate class while the later group will be included in the new LGS rate class. The Company's existing LGS rate class resulted in a similar set of new customer groupings. When each of these two new LGS groups were combined with each of the two groups created from the restructuring of the SGS rate class, the Company's proposed new SGS and LGS rate classes were derived, with the load characteristics exhibited in Schedule RAF-2.

Q. CAN YOU DEMONSTRATE THAT THE COMPANY'S NEW SGS RATE CLASS EXHIBITS MORE HOMOGENEOUS LOAD CHARACTERISTICS COMPARED TO THE LEVELS UNDER ITS CURRENT SGS RATE CLASS?

A. Yes. First, you can observe in Schedule RAF-3 that the average annual use per customer of 2,376 Ccf for the Company's existing SGS rate class decreases significantly (by almost 50%) to 1,370 Ccf in the new SGS rate class. This result demonstrates that the additional larger customers reclassified from the existing SGS rate class to the new LGS rate class and the additional smaller customers reclassified from the existing LGS rate class to the new SGS rate class causes the class to be comprised of a greater number of much smaller customers than in the existing SGS rate class. Second, a review of the change in the maximum annual use per customer to the average annual use per customer (based on actual load data for 2008) in the Company's new SGS rate class compared to the corresponding ratio for its existing SGS rate class shows a material decrease in the range of gas usage by customers. These results provided in Table 1 below demonstrate that there is less variation in the size of customers under the Company's new SGS rate class compared to its existing rate class. This means that there is more homogeneity in the class load characteristics of the new rate class which, in turn, means there is a greater likelihood that the cost characteristics of this class will be more homogeneous. This outcome is a benefit in the design of rates for the new SGS rate class and enables an appropriate application of an SFV rate structure to the pricing of delivery service in this class.

Table 1 – Maximum Use to Average Use – SGS Rate Class

Description	Existing Rate Class	Proposed Rate Class
SGS Rate Class		

Average Annual Use – Top 10 Customers	206,499 Ccf	10,000 Ccf
Average Annual Use – All Class Customers	2,670 Ccf	1,532 Ccf
Ratio	77.35	6.53

Q. HOW WILL THE COMPANY RECLASSIFY THE CUSTOMERS IT CURRENTLY SERVES UNDER ITS EXISTING SGS AND LGS RATE CLASSES INTO ITS NEW RATE CLASSES?

A. The Company will reclassify its current SGS and LGS customers into its new SGS and LGS rate classes based on each customer's annual gas usage for calendar year 2008 and the applicability provisions of the new tariffs for these rate classes. The customer applicability provisions of the Company's new rate classes are as follows:

- **SGS Rate Class -** applicable to customers with annual gas usage less than or equal to 10,000 Ccf.
- **LGS Rate Class** - applicable to customers with annual gas usage greater than 10,000 Ccf.

Q. WHAT IS THE PRIMARY BENEFIT THAT WILL RESULT FROM THE COMPANY'S PROPOSED RATE CLASS RESTRUCTURING?

A. The Company's proposed rate class restructuring will enable the unit rates in the new SGS rate class to more closely reflect the estimated cost basis for serving these customers, prospectively, because of the greater customer homogeneity achieved through the rate class restructuring process. This means that the current level of intra-class cross-subsidies in the Company's current SGS rate class will be reduced – all other things being equal - which is an important rate design objective.

3. CLASS REVENUE ALLOCATION

Q. PLEASE EXPLAIN THE COMPANY'S PROPOSED ALLOCATION OF THE REVENUE INCREASE TO ITS RATE CLASSES.

A. The apportionment of revenues among rate classes consists of deriving a reasonable balance between various criteria or guidelines that relate to the design of utility rates. The various criteria that were considered in the process included: (1) cost of service; (2) class contribution to present revenue levels; and (3) customer impact considerations. These criteria were evaluated for each of the Company's rate classes. Based on this evaluation, adjustments to class revenue levels were made so that the rates proposed by the Company moved class revenues closer to the costs of serving those classes.

Q. WHAT BASIS DID YOU USE TO EVALUATE THE COSTS OF PROVIDING DELIVERY SERVICE TO THE COMPANY'S CUSTOMERS?

A. I relied upon the cost of service study results presented by Company witness F. Jay Cummings in Schedule FJC-1. Specifically, I utilized the total cost of service and the corresponding revenue-to-cost ratio for each of the Company's existing rate classes to evaluate the costs of providing delivery service to its customers.

Q. HOW DID YOU UTILIZE THE COMPANY'S COST OF SERVICE STUDY RESULTS TO EVALUATE THE COST TO SERVE THE CUSTOMERS INCLUDED IN MGE'S NEW RATE CLASSES?

A. I utilized the total cost of service at proposed revenue levels derived for the Company's existing SGS and LGS rate classes, restated on a unitized basis, and applied the resulting cost factors to the SGS and LGS group billing determinants included within each of the new SGS and LGS rate classes. For customers that were reclassified into the new LGS rate class from the existing SGS rate class, unit cost factors were utilized to reflect the average unit cost of the Company's existing SGS and LGS customers. The same unit cost factors were utilized for customers that were reclassified into the new SGS rate class from the existing LGS rate class. This approach was chosen to recognize that these customers were not the average-sized customers served under the Company's existing SGS and LGS rate classes and that the associated unit costs would most likely not be representative of the costs to serve these customers. That process provided me with a total cost of service basis at proposed revenues for the Company's new rate classes which enabled me to evaluate the cost to serve the customers within these new rate classes relative to their present revenues and rates. In a similar manner, I also developed a comparable weighted customer cost basis for the Company's new SGS rate class based on the number of SGS customers within this new rate class.

Q. HAVE YOU PREPARED A SCHEDULE THAT SHOWS THE COST OF SERVICE BASIS FOR THE COMPANY'S NEW SGS AND LGS RATE CLASSES?

A. Yes. Schedule RAF-3 presents this information for the Company's new SGS and LGS rate classes. This information was used in conjunction with the Company's cost of service study results for its existing RS and LVS rate classes to evaluate and determine the Company's interclass revenue proposal.

Q. DID YOU CONSIDER VARIOUS CLASS REVENUE OPTIONS IN CONJUNCTION WITH YOUR EVALUATION AND DETERMINATION OF THE COMPANY'S INTERCLASS REVENUE PROPOSAL?

A. Yes, I did. Using MGE's proposed revenue increase, I evaluated various options for the assignment of that increase among its rate classes and, in conjunction with Company personnel, ultimately decided upon one of those options as the preferred resolution of the interclass revenue issue. It should be noted that present base revenues from Residential customers (71%) and SGS customers (20%) represents approximately 91% of the Company's total base revenues. Out of necessity, then, the majority of the Company's proposed revenue increase must be recovered from these two classes.

The first and benchmark option that I evaluated under MGE's proposed total revenue level was to adjust the current class revenue level for each rate class so that the relative revenue-to-cost ratio for each class was equal to the Company's overall revenue-to-cost ratio of 1.00. Page 1 of Schedule FJC-1 in conjunction with the results presented in Schedule RAF-3 provided the basis for determining the change in each class' revenue requirement (excluding gas costs) necessary to achieve that benchmark. This option indicated that revenue increases were required for the residential and SGS rate classes and that decreases were required for the LGS and LVS rate classes. As a matter of judgment, I decided that this fully cost-based option was not the preferred solution to the interclass revenue issue. It should be pointed out, however, that those results represented an important guide for purposes of evaluating subsequent rate design options from a cost of service perspective.

The second option I considered was assigning the increase in revenues to the Company's rate classes based on an equal percentage basis of its current base revenues. By definition, this option resulted in each rate class receiving an increase in revenues. However, when this option was evaluated against the class cost of service results (as measured by changes in the revenue-to-cost ratio for each rate class), there was no movement towards cost for any of the Company's rate classes. While this option also was not the preferred solution to the interclass revenue issue, together with the fully cost-based option, it defined a range of results that provided me with further guidance to develop the Company's class revenue proposal.

Q. WHAT WAS THE NEXT STEP IN THE PROCESS?

A. I then evaluated other class revenue options and, after further discussions with MGE, I concluded that the appropriate interclass revenue proposal would be one that relied equally upon the "cost-based" and "equal percentage" approaches. This combined approach resulted in a meaningful movement of class revenue-to-cost based ratios towards unity or 1.00. That result is reflected in Schedule RAF-4, wherein the relative revenue-to-cost based ratios by class are shown to converge towards unity or 1.00 compared to the same ratios calculated under present rates. From a cost of service standpoint, this type of movement is desirable.

Q. HAVE YOU DEVELOPED A COMPARISON OF THE COMPANY'S PRESENT AND PROPOSED REVENUES BY RATE CLASS?

A. Yes. Schedule RAF-5 presents a comparison of present and proposed revenues for each of the Company's rate classes.

4. RATE DESIGN

Q. PLEASE SUMMARIZE THE RATE DESIGN CHANGES THE COMPANY HAS PROPOSED IN THIS PROCEEDING.

A. The Company has proposed the following rate design changes:

- The establishment of a Fixed Monthly Charge in the new SGS rate class that reflects the inclusion of all fixed costs of delivery service incurred by the Company (i.e., an SFV rate structure) and the elimination of the Volumetric Delivery Charges. Under an SFV rate structure, SGS customers will simply pay a flat monthly fee for the delivery services provided by MGE, and will continue to pay on a volumetric basis through the Purchased Gas Adjustment ("PGA") for the amount of gas commodity used each month.
- For customers served under its new LGS rate class, the Company proposes to increase its Fixed Monthly Charge towards the estimated customer cost of service, with commensurate decreases in its Volumetric Delivery Charges.
- For LVS customers, the Company proposes to increase all current charges by the overall percent increase in base revenues proposed for this rate class.
- The Company proposes to eliminate the seasonal differentials in the Volumetric Delivery Charges contained in its SGS, LGS, and LVS rate classes.

I will present the specific rate structure changes for each of the Company's rate classes later in my testimony.

Q. WHY IS MGE PROPOSING THE ABOVE-DESCRIBED RATE DESIGN CHANGES AT THIS TIME?

A. The Company is proposing these rate design changes at this time because they best address the major business challenges faced by gas utilities, such as MGE, causing increased risk and price volatility, including:

- Weather variability;
- Declining use per customer;
- High and volatile wholesale natural gas prices; and
- Resulting increases and volatility in customers' bills.

These are serious challenges to the financial integrity of the Company and to the ability of its customers to manage their energy needs. While the rate design changes that were proposed by the Company, and approved by this Commission, in MGE's last rate case address these challenges as they relate to its residential customers, they continue to present a material problem within the Company's SGS rate class.

At the same time, there is a strong recognition in the energy industry by a diverse group of stakeholders that under the traditional utility ratemaking structure, a utility is financially motivated to increase its sales levels in a future period above that established in its previous rate case because its rates are designed to recover most fixed costs on a volumetric basis – causing the utility's revenues to increase as its sales increase. Under traditional utility ratemaking, an increase in the recovery of fixed costs will occur (compared to the level approved in the utility's most recently completed rate case) when sales are higher than

assumed in the design of the utility's rates. Conversely, a decrease in the recovery of fixed costs will occur when sales are low relative to assumed levels. This situation creates a natural disincentive for utilities to promote conservation or energy efficiency initiatives because such actions will reduce the utility's revenues and resulting earnings. The Company's SFV rate design proposed for its new SGS rate class, coupled with the same rate design previously approved for its RS rate class, effectively eliminates the revenue impact of increases or decreases in sales volumes. By doing so, the Company's rate design approach for the new SGS rate class would effectively eliminate the link between sales volumes and revenues. Hence, it would encourage MGE to be supportive of measures which would promote decreased energy usage, conservation, or other energy efficiency initiatives.

In the Company's last rate case, I presented evidence which demonstrated that these business challenges warranted a change in ratemaking concepts and proposed the adoption of an SFV rate design for the Company's Residential Service class. The rate design proposals presented in this proceeding represent the next steps in the process of moving to a ratemaking approach that is consistent with, and supportive of, the current and expected future state of the gas distribution industry, and the utility industry more broadly. Clearly, the above described business challenges coupled with the increased emphasis being placed on energy efficiency and conservation initiatives warrant ratemaking approaches that remove any financial disincentives the utility has to support these important initiatives. These business challenges and important energy efficiency initiatives are also applicable to the Company's SGS rate class. In my opinion, this Commission has recognized these business challenges, the fixed cost nature of the gas distribution business, and the need for this type of

ratemaking reform, by its approval in the Company's last rate case of an SFV rate design for its Residential Service class.

Under its proposed SFV rate design, the Company will be able to promote energy efficiency and conservation programs for its smaller commercial customers served under the new SGS rate class without the continual real threat of margin revenue losses due to declining gas sales per customer. It is therefore entirely reasonable for the Company to condition its willingness to undertake the expanded natural gas conservation initiatives described by MGE witness David Hendershot in his direct testimony on the Commission's adoption of the SFV rate design proposed by MGE for its new SGS rate class.

Q. IS THE SFV RATE DESIGN FOR THE COMPANY'S RESIDENTIAL CUSTOMERS ACHIEVING THE OBJECTIVES UPON WHICH THIS RATE DESIGN APPROACH WAS ORIGINALLY PREMISED?

A. Yes. As discussed by Company witness Robert J. Hack, the Company's experience to date with its SFV rate design for the Residential Service has clearly demonstrated that the desired objectives are being achieved under this rate design approach. For example, the SFV rate design provided distinct benefits to the Company's residential customers during the winter of 2007-2008 and the current 2008-2009 winter in the form of monthly gas bills that were significantly lower than what would have been under the Company's previous volumetric rate design. This result is illustrated in Schedule RAF-6 which shows the monthly gas bills of residential customers under the SFV rate design compared to the bills under the previous volumetric rate design recomputed at the Company's revenue level approved in its last rate

case. Over the last nine month winter periods, each of the Company's residential customers saved on average approximately $81.00, or about $36.4 million in the aggregate, under the SFV rate design compared to the amounts that would have been billed under a volumetric rate design. At the same time, this Schedule shows that the Company's monthly margin revenue was stabilized under the SFV rate design. Quite simply, within the context of MGE's residential market, the SFV rate design is achieving the desirable alignment of the Company's and customers' interests and is providing significant and long-lasting benefits to its customers.

Q. PLEASE EXPLAIN HOW THE COMPANY'S PROPOSED RATE DESIGN FOR ITS SGS CUSTOMERS WILL ADDRESS THE IMPACT OF WEATHER AND DECLINING USE PER CUSTOMER ON MGE'S ABILITY TO RECOVER ITS APPROVED MARGIN LEVEL?

A. Since virtually all of MGE's margin consists of fixed costs, and because the Fixed Monthly Charge under its proposed SFV rate structure for SGS customers is designed to recover 100% of those fixed costs, the Company's ability to recover its Commission-approved level of margin through base revenues for its SGS customers no longer will be subject to the ongoing fluctuations in customer usage caused by weather, energy conservation, and energy efficiency activities Of course, the Company's ability to earn a reasonable rate of return on its investment will continue to be impacted by how well management can control its costs of providing delivery service relative to the levels assumed, and ultimately approved by the Commission, in MGE's most recently completed base rate case.

Q. DOES THE COMPANY'S PROPOSED RATE DESIGN FOR ITS SGS CUSTOMERS REPRESENT AN EFFECTIVE SOLUTION TO THE AFOREMENTIONED RATEMAKING PROBLEMS IT HAS EXPERIENCED?

A. Yes. MGE's proposed rate design is cost-based, equitable, and beneficial to the Company and its customers. Under the proposed SFV rate structure, when it is colder-than-normal, customers do not overpay for the Company's fixed costs, and the Company does not over-recover margin. Conversely, when it is warmer-than-normal, customers do not underpay for the Company's fixed costs, and the Company does not under recover margin.

Q. PLEASE EXPLAIN THE CHANGES TO THE COMPANY'S CURRENT RESIDENTIAL RATE STRUCTURE.

A. The only change to the Company's current Residential Service rate structure is that the level of the current Fixed Monthly Charge has been adjusted to recover the class revenues proposed for the RS rate class at the level which I discussed previously.

Q. PLEASE EXPLAIN HOW THE COMPANY'S PROPOSED RS RATE DESIGN WILL IMPACT CUSTOMERS' GAS BILLS.

A. Pages 1 and 2 of Schedule RAF-7 present monthly bill comparisons for various ranges of monthly gas consumption for RS customers and an annual bill comparison for the average RS customer.

Q. PLEASE EXPLAIN THE PROPOSED RATE DESIGN FOR THE COMPANY'S NEW SGS CLASS.

A. A Fixed Monthly Charge of $41.20 was established in the new SGS rate class that reflects the inclusion of all fixed costs of delivery service incurred by the Company (i.e., an SFV rate structure) and the elimination of the Volumetric Delivery Charges. This is the same type of rate structure that currently exists in the Company's RS rate class.

Q. WHY HAS THE COMPANY DECIDED TO PROPOSE AN SFV RATE STRUCTURE FOR ITS SGS CUSTOMERS?

A. This type of rate structure best addresses the business challenges faced by MGE that I discussed previously, it is supportive of the energy efficiency and conservation initiatives available to SGS customers, and it is reflective of the underlying cost basis for providing gas delivery service to the customers included in the Company's new SGS rate class.

Q. HAVE YOU PREPARED AN ANALYSIS DEMONSTRATING THAT THE COMPANY'S COSTS OF GAS DELIVERY SERVICE ARE THE SAME REGARDLESS OF SIZE FOR ALL SGS CUSTOMERS?

A. Yes. I have developed the cost for various sizes of distribution main in Table 2 below. Since the Company uses a common size of two inches as the smallest size of main, I have analyzed the ability of two inch main to serve SGS customers using the system average density, the standard operating pressure, and the standard pressure drop at the house regulator. By applying pipeline flow formulas, it is possible to determine the amount of gas that would flow through the pipe under design day conditions and to estimate the maximum demand that the pipe would serve. This type of analysis recognizes that there are substantial economies of scale associated with the gas distribution infrastructure such that the unit cost

of capacity for gas delivery declines with size at relatively rapid rate.

Table 2 - Economies of Scale for Distribution Mains

Size of Main (inches)	Material Cost ($ per foot)	Installation Cost ($ per foot)	Total Cost ($ per foot)	Design Day Flow Capacity (Mcf/d)	Unit Cost ($ per Mcf/d)
2	$0.63	$11.20	$11.83	783	$0.015
4	$2.08	$25.43	$27.51	4,591	$0.006

The design day flow in the above calculations is based on a one-mile segment of main. The company serves about 59 customers per mile of main based on the average customer density within MGE's service area.

Q. PLEASE DESCRIBE THE ECONOMIES OF SCALE ASSOCIATED WITH A UTILITY'S SYSTEM OF DISTRIBUTION MAINS.

A. The scale economies of gas distribution systems reflect the relationship between the installed cost of pipe by size and type coupled with the increased capacity from pressure and pipe diameter. For gas distribution mains, when the size of the main is doubled, the available design day capacity of that main more than doubles. The unit cost of the larger main is less than twice the cost of the smaller size main, all else being equal. For a low pressure system, increasing pipe size from two inch to four inch allows over five times the amount of gas to flow, and under higher pressure, the flow rate increases by more almost six times that of two inch pipe, all else being equal. The resulting cost causation implies that larger customers

impose lower unit costs on the distribution system than do smaller customers. Further, given the customer density and standard operating pressure for the MGE system, the minimum size of pipe installed (2 inch main) will serve the design day load characteristics of its entire size range of customers included in its new SGS rate class.

Table 2 above illustrates the scale economies associated with two and four inch mains based on the current costs of the Company In this Table, the installed cost per foot of design day flow capacity is approximately 250 percent less for four inch pipe than for two inch pipe. Further, the two inch pipe will serve customers with a design day requirement of approximately 13.2 Mcf.[1] Using a 20 percent annual load factor to estimate the annual gas consumption of a customer with a design day requirement of 13.2 Mcf, this translates to approximately 9,600 Ccf. Essentially, the smallest size installed main will serve over 99% of the Company's customers served under its new SGS rate class. The design day requirements of the new SGS rate class are satisfied by the smallest main installed on the system. This implies that all customers are equally responsible for MGE's gas delivery service costs and that a single monthly charge (under an SFV rate structure) is an appropriate basis to recover the delivery service costs incurred by the Company to serve its SGS customers.

Q. PLEASE EXPLAIN HOW THE COMPANY'S PROPOSED SGS RATE DESIGN WILL IMPACT CUSTOMERS' GAS BILLS.

[1] 783 Mcf/d divided by 59 customers equals 13.2 Mcf/d per customer.

A. Pages 3 and 4 of Schedule RAF-7 present an annual bill comparison for the average SGS customer and monthly bill comparisons for various ranges of monthly gas consumption for the Company's existing SGS customers, respectively. Pages 5 and 6 of this Schedule present an annual bill comparison for the average existing LGS customer and monthly bill comparisons for various ranges of monthly gas consumption for the Company's existing LGS customers, respectively.

Q. PLEASE EXPLAIN THE PROPOSED RATE DESIGN FOR THE COMPANY'S NEW LGS CLASS.

A. A Fixed Monthly Charge of $140.00 was established in the new LGS rate class guided by the monthly customer cost basis for the new LGS rate class presented in Schedule RAF-3. Volumetric Delivery Charges were then established at levels necessary to recover the balance of the proposed revenue increase assigned to this class not recovered through the monthly Fixed Monthly Charge.

Q, HOW DID YOU DETERMINE THE NUMBER AND SIZE OF THE RATE BLOCKS FOR THE VOLUMETRIC DELIVERY CHARGES PROPOSED IN THE NEW LGS RATE CLASS?

A. While the customers that comprise the new LGS rate class are somewhat more homogeneous than the customers in the Company's existing LGS rate class, there is still a moderate level of diversity in this new rate class. As a result, it was determined that multiple Volumetric Delivery Charges were appropriate. Based on an annual bill frequency for the customers

contained in the new LGS rate class, two rate blocks were created with the first block applicable to the first 1,800 Ccf or less of gas delivered per month and the second rate block applicable to all additional gas delivered over 1,800 Ccf per month.

Q. PLEASE EXPLAIN HOW THE COMPANY'S PROPOSED LGS RATE DESIGN WILL IMPACT CUSTOMERS' GAS BILLS.

A. Pages 7 and 8 of Schedule RAF-7 present an annual bill comparison for the average LGS customer and monthly bill comparisons for various ranges of monthly gas consumption for the Company's existing LGS customers, respectively. Pages 9 and 10 of this Schedule present an annual bill comparison for the existing average SGS customer and monthly bill comparisons for various ranges of monthly gas consumption for the Company's existing SGS customers, respectively.

Q. PLEASE EXPLAIN THE PROPOSED RATE DESIGN FOR THE LVS CLASS.

A. The Company proposes to increase all current charges for the LVS rate class by the overall percent increase in revenues proposed for this rate class. This approach preserved the relative mix of fixed and volumetric-based revenues within this rate class.

Q. PLEASE EXPLAIN HOW THE COMPANY'S PROPOSED LVS RATE DESIGN WILL IMPACT CUSTOMERS' GAS BILLS.

A. Page 11 of Schedule RAF-7 presents monthly bill comparisons for various ranges of monthly gas consumption for LVS customers.

Q. PLEASE EXPLAIN WHY THE COMPANY HAS PROPOSED TO ELIMINATE THE SEASONAL DIFFERENTIALS IN THE VOLUMETRIC DELIVERY CHARGES CONTAINED IN ITS SGS, LGS, AND LVS RATE CLASSES.

A. This rate design change was proposed in recognition of the fact that a gas distribution utility's costs of delivery service are fixed in nature and do not vary by season. Indeed, in the Company's cost of service study, these costs are not allocated to its classes of service on any type of seasonal or time-differentiated basis.

Q. IN YOUR OPINION, WHY DO THE COMPANY'S CURRENT VOLUMETRIC DELIVERY CHARGES FOR THESE RATE CLASSES REFLECT A SEASONAL DIFFERENTIAL IN RATES?

A. I believe that the seasonal differential in the Company's Volumetric Delivery Charges is a vestige of the past when the rates of a gas distribution utility such as MGE were designed on a bundled basis. In other words, before the advent of end-user transportation service, a gas distribution utility's rates reflected in the same volumetric charges the inclusion of delivery service costs and purchased gas costs (often through the establishment of a base cost of gas with any cost differences recovered through the PGA). In the past, there was a stronger seasonality to purchased gas costs, with costs higher in the winter months (typically November through March) and lower in the summer months (typically April through October). With the Company's purchased gas costs now fully excluded from its Volumetric Delivery Charges and recoverable through its PGA, there is no longer any rational ratemaking basis to maintain a seasonal rate differential for the remaining delivery service costs reflected in these Charges.

Q. MR. FEINGOLD, DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

A. Yes, it does.