Exhibit No.: _____
Issues: Cost Allocation/Rate Design
Witness: Paul R. Herbert
Exhibit Type: Rebuttal
Sponsoring Party: Missouri-American Water Company
Case No.: WR-2008-0311
Date: September 30, 2008

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2008-0311

REBUTTAL TESTIMONY

OF

PAUL R. HERBERT

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

JEFFERSON CITY, MISSOURI

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN WATER COMPANY FOR AUTHORITY TO FILE TARIFFS REFLECTING INCREASED RATES FOR WATER AND SEWER SERVICE	)))))	**CASE NO. WR-2008-0311 CASE NO. SR-2008-0312**

AFFIDAVIT OF PAUL R. HERBERT

Paul R. Herbert, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of Paul R. Herbert"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquires were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

Paul R Herbert

Paul R. Herbert

Commonwealth of Pennsylvania
County of Cumberland
SUBSCRIBED and sworn to
Before me this 24th **day of** September **2008.**

Notary Public

My commission expires: February 20, 2011

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2011
Member, Pennsylvania Association of Notaries

TABLE OF CONTENTS

WITNESS INTRODUCTION

1. Q. Please state your name and address.

A. My name is Paul R. Herbert. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

2. Q. By whom are you employed?

A. I am employed by Gannett Fleming, Inc. as President of the Valuation and Rate division.

3. Q. Are you the same Paul Herbert that submitted direct testimony in this proceeding?

A. Yes, I am. My direct testimony and exhibits were submitted with the Company's filing on March 31, 2008.

4. Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to address the cost of service allocation and rate design issues of Staff witness James Russo, Office of Public Counsel (OPC) witness Barbara Meisenheimer, MIEC witness Michael Gorman and AGP witness Donald Johnstone.

5. Q. How have you structured your rebuttal testimony?

A. First, I will discuss and explain key differences between the cost allocation studies I prepared and those of Staff and Public Counsel and certain allocations presented by MIEC. Then I will address the rate design issues proposed by Staff and AGP.

REBUTTAL OF COST OF SERVICE ISSUES

6. Q. Please address the cost allocation issues presented by MIEC witness Mr. Gorman.

A. Mr. Gorman suggests that the demand charge portion of the Company's electric bills be allocated on an extra capacity basis, using my Factor 6 instead of Factor 1, which is based on average daily sales. The result of his revision would allocate less purchased power costs to the Rate J class and more to the remaining classes. The reduction to the Rate J would be $206,817 or approximately 2.6% of the total costs allocated to Rate J - a relatively minor adjustment.

7. Q. Do you agree with Mr. Gorman's revision?

A. I would agree with the concept of this refinement but not to the extent that Mr. Gorman suggests.

8. Q. Please explain.

A. I have conducted an analysis of a sample of the Company's power bills in St. Louis County and determined that the bills include a monthly demand charge regardless of the level of service. Generally, electric rates are structured with a customer charge, a demand charge and commodity charges. Depending on the rate schedule, there will be a monthly demand charge even if power is taken at a steady rate 24 hours a day, 7 days a week. To the extent that the demand charge fluctuates from month to month, I would consider that to be the extra capacity portion of the Company's power purchases. In my analysis, the difference between the minimum demand charge for the lowest

demand month and the demand charges for the remaining months result in approximately 9.3% of the total purchased power expense attributable to extra capacity. Therefore, I would support a refinement to my cost allocation that would allocate 9.3% of purchased power costs to the extra capacity function; however, as I will demonstrate, this refinement results in a very minor revision.

Q. Does the AWWA Manual M1 support your method of allocating purchased power in this manner?

A. Yes, it does. It states that "the demand portion of power costs should be allocated to extra capacity ***to the degree that it varies with the demand pumping requirements."*** (emphasis added). It does not suggest that the total demand portion of power costs should be allocated to extra capacity, only to the degree that it varies with pumping requirements.

Q. What is the result of allocating power costs using your alternative method?

A. As shown on Exhibit No. PRH-R1, the result of allocating 9.3% of the power costs on an extra capacity basis reduces the industrial cost of service by $19,234 or about one quarter of one percent of the total Rate J costs - a small and insignificant amount.

Q. Mr. Gorman also disagrees with your small main adjustment for the St. Louis Metro district. Please explain his method and your comments.

A. My analysis of distribution mains for the district showed that the Rate J class was responsible for approximately 1.3% of the costs associated with

distribution mains based on the length of mains needed to serve Rate J customers connected to small mains. Mr. Gorman incorrectly assumes then that only 1.3% of the Industrial consumption should be used for to calculate Factor 4 which would result in allocating a much smaller share to the Rate J class. My use of 10% of the Rate J consumption results in a base cost allocation factor of 1.3% for Rate J which is then used to allocate the costs associated with distribution mains. See Exhibit No. PRH-R4 that presents a comparison of my Factor 4 with that proposed by Mr. Gorman. The Factor on the left shows my calculation of the base portion of Factor 4 which results in an allocation of 1.3% to Rate J class from my use of 10% of the Rate J usage. Mr.Gorman's factor on the right shows that Rate J is allocated only 0.18% which is significantly below the level of 1.3% that is appropriate. My method is consistent with the appropriate level of distribution main cost attributable to the Rate J class. Mr. Gorman's method is flawed because it results in a base cost allocation of only 0.18% which is grossly inadequate and should be rejected.

12. Q. Please discuss the similarities and differences among the cost of service studies prepared by you and the studies submitted by Mr. Russo of the Staff and Ms. Meisenheimer of the OPC.

A. The similarities include the use of the base-extra capacity method of allocation and the use of district specific cost of service. The differences are numerous – some significant, many others not so significant. I will try to focus on the significant differences.

13. Q. Please continue.

A. The major differences include:

- The use of a much lower revenue requirement by Staff and OPC – a total of $13.3 million increase as opposed to the Company's $49 million increase.
- Differences in the distribution of the revenue requirements to the various districts.
- Differences in the billing determinants in some districts used for allocation purposes as a result of different projected revenues.
- Differences in the allocation of distribution mains in certain districts.
- Differences in the allocation of costs to contract customers.
- Differences in the use of certain peak factors.

The issues dealing with revenue requirements, the distribution of revenue requirements to the districts and the proper level of billing determinants will be addressed in other Company rebuttal testimony.

14. Q. Please address the allocation of distribution mains.

A. One distinct difference that affected the results in the St. Louis County, Joplin, and St. Joseph districts was that Staff did not use a small mains adjustment as I did for the purposes of allocating mains. OPC witness Ms. Meisenheimer employed a modified small mains adjustment but not to the extent necessary. My studies reflect that many of the large users in those districts are served primarily from large transmission mains (generally larger than 10-inch) and thus, large users do not benefit from the smaller mains in the distribution

system. A more detailed explanation of my small mains adjustment is provided in my direct testimony.

15. Q. Why is a small mains adjustment appropriate?

A. Generally, water flows from treatment facilities in large mains often referred to as transmission mains. The primary purpose of transmission mains is to transfer water from the treatment facilities to the distribution system and costs associated with transmission mains are allocated on a maximum day basis. The distribution system consists of many miles of smaller mains which deliver water to customers' service lines and are designed to meet maximum hour demands. In larger systems, large users such as industrial and sales for resale customers are located on transmission mains and take water before it reaches the distribution system. My study recognizes this fact and excludes certain large users from the allocation of costs associated with small mains.

16. Q. What is the effect of Staff not using a small mains adjustment?

A. By not using a small mains adjustment, Staff's and, to a lesser extent, OPC's cost allocations result in higher costs being allocated to industrial and sales for resale customers in St. Louis County and St. Joseph Districts and to the industrial customers in Joplin, than would have been allocated if they had fully recognized a small-mains adjustment. This will have an adverse impact on industry and will make it more difficult for the Company to meet competitive pressures. For example, as a result of Staff's allocations in the St. Louis County district, the Rate J class (industrial) would require a 158.6% increase and the Rate B class (Sales for Resale) would require a 126% increase on an

overall St. Louis County increase of 10.8%, This compares to increases of 26.1% and 13.2% for the Rate J and Rate B classes, respectively, on an overall increase of 29.9% as a result of my study.

Furthermore, Staff's allocation of operation and maintenance expenses for mains is inconsistent with how Staff allocated rate base and depreciation expense for mains. For rate base and depreciation expense, Staff allocated smaller mains (distribution) using the max hour factor (4) and the larger mains (transmission) using the max day factor (3), which is appropriate. However, for the allocation of operation and maintenance expenses for all mains, Staff did not classify any of these costs as transmission and allocated all operation and maintenance for mains based on distribution alone, using the max hour factor. This assumes that all operation and maintenance expenses are performed only on small mains and none on the larger mains, which is not logical. For these reasons, Staff and OPC allocation of costs associated with mains should be rejected.

17. Q. Please describe how you treated the allocation of costs to contract sales customers.

A. In my cost allocation study, I excluded the volumes associated with contract sales and deducted the contract sales revenue from the cost of service from all classes in proportion to the result of each class's cost of service. (Contract customers include Triumph Foods in the St. Joe's District and Rate G and H classes in the St. Louis Metro District) This recognizes that contract customers have been retained on the system to the benefit of the remaining

tariff customers and should offset the cost of service in proportion to each class's cost of service. Staff and OPC did not make this refinement and they effectively allocate the entire difference between the costs allocated to contract customers and the actual contract revenue to the remaining tariff customers in that classification rather than to all tariff customers.

Furthermore, Staff's study for St. Joe's District includes the revenues for the contract customer but it omitted the consumption from the basis of their allocation factors. This produces erroneous results and does not properly match revenues with the allocated cost of service.

18. Q. What other cost allocation differences exist among the studies?

A. There are differences in the estimated system-wide peak hour ratios used in the studies. It appears that Staff and OPC used non-coincident demands to estimate the system peak hour factor rather than an estimated coincident peak hour. A factor based on non-coincident demands would produce a higher ratio than a factor based on coincident demands. Generally, the use of higher coincident maximum hour peak ratios will allocate more costs to the residential class. Typically, if no actual system peak hour data is available, a factor of 1.3 to 1.5 times the maximum day ratio is used to estimate the coincident peak hour ratio.

19. Q. What are your conclusions with regard to the cost of service studies submitted in this case?

A. Each of the witnesses supports the use of the base-extra capacity method. However, only the Company's studies have applied the principles consistent

with proper rate making and reflect the proper allocation of small mains, the operation and maintenance expenses for mains, the costs associated with contract customers and the allocation of peak hour demands. It is important that the Company's studies are used for the purposes of designing rates in this case to ensure an appropriate allocation of costs to the various customer classes and proper revenue distribution among the classes.

REBUTTAL REGARDING CUSTOMER CLASSIFICATIONS

20. Q. Please address Mr. Johnstone's concern about the customer classifications used in the studies.

A. Mr. Johnstone criticizes the use of customer classifications for tariff design because the tariff does not indicate "what it takes" to be included in a certain classification.

21. Q. Does his criticism have any merit?

A. No, it does not. The Company classifies customers according to the AWWA standard for Residential, Commercial, Industrial, Public Authority, Resale and Fire Protection customers. These classifications are defined below:

- Residential – One and two-family dwellings, usually separate.
- Commercial – Multifamily apartment buildings and non-residential, non-industrial business enterprises.
- Industrial – Manufacturing and processing establishments.
- Public Authority – Public schools, hospitals, colleges,

municipal or other governmental offices or operations.

- Resale – Sales of water to another water utility for resale.
- Fire Protection – Private fire lines for businesses and public fire hydrants paid for by municipalities.

Each customer is classified into one of the above categories based on the characteristics of the customer. This is common practice in the water industry. Relevant pages from the AWWA M1 manual describing the customer classifications are attached as Exhibit No. PRH-R2.

REBUTTAL CONCERNING RATE DESIGN ISSUES

22. Q. Please outline the rate design issues you will address.

A. I will address the rate design proposed by Mr. Russo and certain rate design issues presented by Mr. Johnstone.

23. Q. Please compare the Company's rate design with Staff's proposal.

A. The Company's proposed rate design is explained in more detail in my direct testimony however I will list the major points below:

- Combined the rate structures for St. Charles and Warren County Water into St. Louis County to form the St. Louis Metro District, using the same basic rate structure from St. Louis County District.
- Maintained district specific pricing for all districts with the exception of Brunswick and Parkville Water districts and two small sewer districts which receive a subsidy.
- Proposed a uniform set of customer charges for the seven districts

other than St. Louis Metro. An exception are the customer charges for meter sizes greater than 5/8-inch for Jefferson City which have charges less than the other districts in order to avoid large increases there.

- Proposed a single volumetric block for residential and a declining block structure for non-residential for the seven districts other than St. Louis Metro.
- Maintained St. Louis Metro basic structure with district specific monthly and quarterly customer charges and single block structure for each class.

24. Q. Please summarize Staff's proposal.

A. Staff proposed district specific pricing without combining St. Charles and Warren County Water into St. Louis Metro but recommends that subsidies continue for Brunswick and Warren County Water. All districts have specific (and different) customer charges and single block rates for each class within each district.

25. Q. Please explain the advantages of having common customer charges for the districts other than St. Louis Metro.

A. Common customer charges can be supported from a cost and administrative standpoint. The cost analysis I prepared shows that the monthly cost for a 5/8-inch meter ranges from $12.93 per month to $19.32 per month. The 5/8-inch customer charge was set at $13.00 per month for the seven districts so no district is paying much more than the cost. Uniform customer charges

make sense because all customers have a service line and meter. All customers have their meter read each month and are billed from a common billing center.

26. Q. Please discuss the advantages of your proposed volumetric rates.

A. The Company is proposing single block rates for residential customers and declining block rates for non-residential classes. This allows for larger customers who generally experience better load factors to pay a lower tail block rate to reflect the lower cost to serve them. Staff proposed single block rates for all classes that do not reflect this benefit.

27. Q. Mr. Russo indicates on page 8 of his class cost of service report that *"the existing declining block rates result in the small users in a customer class paying much more of the costs to provide their water than large customers pay."* Do you agree?

A. No, I do not. Mr. Russo ignores the fact that large customers must first pay for the all the usage at the initial block rates before they pay the lower rates at the tail block. This is the basic idea of the declining block rate structure. Large customers will pay for all the extra capacity costs in the initial blocks which allows for the payment of base costs in the tail block. It is appropriate and justified from a cost standpoint for larger customers with favorable load factors to pay less per unit as their volumes increase.

28. Q. Pease address the rate design issues presented in Mr. Johnstone's testimony.

A. Mr. Johnstone recommends an industrial and a non-industrial declining block

rate design for the St. Joe's District on pages 5 and 6 of his direct testimony.

29. Q. Are they cost based?

A. No, not that I can confirm. He provided no cost determination to support his recommended rate design. This is especially apparent because his third and fourth block rates do not recover the base cost of water. His industrial tail block rate represents a 39% decrease from present rates.

30. Q. What do you mean by the base cost of water?

A. In the base-extra capacity method, the base cost of water represents the costs required to supply and deliver water at average load conditions without the costs necessary to meet extra capacity demands.

31. Q. Did you conduct such an analysis?

A. Yes, I did. It is attached to my rebuttal testimony as Exhibit No. PRH-R3. It shows that the base cost of water is $2.223 per thousand gallons. Mr. Johnstone's recommended industrial rates of $1.2771 for the third block and $1.0432 for the tail block are significantly below base costs. The AWWA Manual M1 on water rates suggests that the rates in a declining block structure should at least recover the base cost of water. The language comes from page 59 of the Manual and states as follows:

> *". . . Therefore, the unit base cost provides a measure of the lowest potential charge in a schedule of rates for delivery of uniform service. As such, the unit base cost is an important guide in preventing utilities from establishing a charge that could result in the sale of water below cost."*

32. Q. What do you conclude from your analysis of base costs with respect to Mr. Johnstone's recommended rate?

A. Mr. Johnstone's rate design is not cost based and results in rates that are significantly below the unit base cost of water. Therefore his rate design must be rejected.

33. Q. What do you conclude with regard to rate design.

A. The Commission should adopt the Company's rate design. It is cost based and reflects the proper allocation of costs presented in the Company's cost of service studies. It properly combines the St. Louis County, St. Charles and Warren County Water districts into the St. Louis Metro District. It appropriately uses a uniform set of customer charges for the six districts plus the 5/8-inch charge in Jefferson City. It includes a single block volumetric rate for residential customers and a declining block rate structure for non-residential customers. Finally, it maintains the basic rate structure for the St. Louis Metro District which has been in existence for many years.

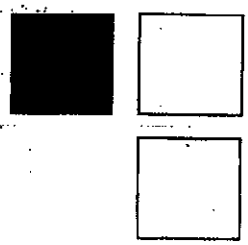
34. Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

Exhibit PRH-R1

MISSOURI AMERICAN WATER COMPANY
ANALYSIS OF PURCHASED POWER

Account		Rate Sched.	Total Power Purchased	Total Demand Charges	Minimum Demand Charge	Excess Demand Charges	Percent Excess Demand to Total Bill
5241003413	Central Plant	11M	$ 2,216,463.19	$ 819,369.53	$ 547,799.91	$ 271,569.62	12.25%
6241003519	Central Plant	4M	1,276,410.61	79,727.36	25,753.68	53,973.68	4.23%
0950005314	Lindbergh Booster	3M	22,816.16	4,225.66	2,443.81	1,781.85	7.81%
Total			3,515,689.96	903,322.55	575,997.39	327,325.16	9.31%



Chapter 8

Distributing Costs to Customer Classes

The preceding chapters of this manual have dealt with how utilities determine revenue requirements and allocate both operating- and capital-related costs to the functional components of cost of service. This chapter presents the third element in the rate-making process: how utilities distribute component costs to customer classes.

The ideal solution to developing rates for water utility customers is to assign cost responsibility to each individual customer served and to develop rates to derive that cost. Unfortunately, it is neither economically practical nor often possible to determine the cost responsibility and applicable rates for each individual customer served. However, the cost of providing service can reasonably be determined for groups or classes of customers that have similar water-use characteristics and for special customers having unusual water-use or service requirements. Rate making attempts to assign costs to classes of customers in such a manner that rates can be designed that are nondiscriminatory and closely meet the cost of providing service to such customer classes.

CUSTOMER CLASSES

In establishing customer classes, water utilities consider service characteristics, demand patterns, and whether service is provided both inside and outside the city (jurisdiction) limits. Service characteristic differences may be illustrated by recognizing that customers using treated water require facilities that raw-water customers do not need. Similarly, large-volume industrial customers, wholesale customers, and other large users tend to be served directly from major treated water transmission mains, whereas smaller users are served by both large and small mains. Utilities must sometimes consider this factor when establishing customer classes and their costs of service.

Demand patterns of various customers differ, depending on their peak-day and peak-hour rates of demand relative to average demands. For example, the residential

customer class, placing summertime lawn irrigation loads on the system, typically has a much higher peak-demand requirement, relative to the average demand, than does a petroleum refinery, which may require water on a relatively uniform basis throughout the year.

The classification of water customers as either inside or outside the city limits is related to each major group's responsibility for overall costs. As explained in a later section of this manual, this classification is critical to government-owned utilities and, in some instances, may have a bearing on investor-owned utilities.

Utilities may need to recognize certain customer classifications from an accounting standpoint because of legal requirements or customs; such requirements can be accommodated in rate studies. However, general service characteristics, demand patterns, and location with regard to city limits are generally the principal considerations in customer classification.

General Classes

Most water utilities typically have three principal customer classes: (1) residential, (2) commercial, and (3) industrial. Utilities define these general customer classes differently, but, in very broad terms, the following definitions are common:

Residential: One- and two-family dwellings, usually physically separate.

Commercial: Multifamily apartment buildings and nonresidential, nonindustrial business enterprises.

Industrial: Manufacturing and processing establishments.

Some utilities may break down these general classes into more specific groups. For example, the commercial customer group may be separated into multifamily customers and commercial customers. Similarly, the industrial customer group may be subdivided into small industry, large industry, and special, the latter typified by a petroleum refinery.

Many systems, particularly larger ones, have customers with individual water-use characteristics, service requirements, or other factors that differentiate them from other customers with regard to cost responsibility. These customers should have a separate class designation. Such classes may include large hospitals, universities, military establishments, and other such categories.

Special Classes

In addition to the general classes of service previously described, water utilities often provide service to certain special classes of customers. Three such classes are wholesale service, fire-protection service, and lawn irrigation.

Wholesale service. Wholesale service is usually defined as a situation in which water is sold to a customer through a master meter at one or more major points of delivery for resale to individual retail customers within the wholesale customer's service area. Treated-water service is provided in most cases, but occasionally raw water is provided to wholesale customers. Usually, the wholesale customer is a separate municipality or water district adjacent to the supplying utility, but it may be in an area within the jurisdiction of the supplying utility. A more detailed discussion of wholesale service considerations is provided in chapter 31 of this manual.

Fire-protection service. Fire-protection service has characteristics that are markedly different from other types of water service. The service provided is principally of a standby nature—that is, readiness to deliver relatively large

quantities of water for short periods of time at any of a large number of points in the water distribution system while the total annual quantity of water delivered is relatively small.

There are two principal approaches to determining fire-protection service costs that differ widely in both theory and application. One approach proposes that the costs of fire-protection service, in addition to those of the direct cost related to the hydrants themselves, be determined on the basis of the potential demand for water for fire-fighting purposes in relation to the total of all potential demands for water. A second approach proposes that fire-protection service costs be allocated as an incremental cost to the costs of general water service. This second approach is based on the premise that the prime function of the water utility is to supply general water service and that fire-protection service is a supplementary service. Each approach has advocates among water utility professionals. For the purposes of illustration in this manual, the first approach is used.

Costs allocated to fire-protection service as a class can be subdivided to those related to public fire-protection service and private fire-protection service. The reader should refer to chapter 30 of this manual for further discussion of fire-protection rates and charges.

Lawn irrigation. Residential lawn irrigation is characterized by the relatively high demands it places on the water system, usually during the late afternoon and early evening hours. Throughout most of the United States, lawn irrigation is very seasonal in nature; it is most pronounced during the summer months and virtually nonexistent during the winter months.

In most instances, lawn irrigation service is not separate from other service; therefore, the high-peaking characteristics of lawn irrigation need to be recognized as a part of residential-class water use characteristics. However, a separate class designation is warranted when separate metering for lawn irrigation is provided, as is often the case for automatic lawn sprinkling systems, parks, and golf courses, and where such loads are significant in the system.

Service Outside City Limits

Many government-owned utilities recognize in their rate structures the differences in costs of serving water users located outside the corporate limits of the supplying city or jurisdiction compared with those located within the corporate limits. A government-owned utility may be considered to be the property of the citizens within the city. Customers within the city are owner customers, who must bear the risks and responsibilities of utility ownership. Outside-city customers are non-owner customers and, as such, bear a different responsibility for costs than do owner customers.

The costs to be borne by outside-city (non-owner) customers are similar to those attributed to the customers (non-owners) of an investor-owned utility. Such costs include O&M expense, depreciation expense, and an appropriate return on the value of property devoted to serving the outside-city customers.

Sometimes, those who design or review water rates do not fully understand how the cash-needs approach to measuring total revenue requirements relates to the utility basis of cost allocation with regard to government-owned water systems, and why both elements are used in many rate studies.

A government-owned utility, in most cases where not regulated by a state public utility commission, determines its total revenue requirements, or costs of service, on a cash-needs basis. That is, it must develop sufficient revenue to meet cash needs for O&M expense, debt-service requirements, capital expenditures not debt-financed, and possibly other cash requirements as described in chapters 1 through 6 of this

Exhibit No. PRH-R3

MISSOURI-AMERICAN WATER COMPANY
ST. JOSEPH DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2007, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
OPERATION AND MAINTENANCE EXPENSES									
SOURCE OF SUPPLY EXPENSES									
Super & Eng Oper SS	2	0	0	0	0	0	0	0	0
Labor & Exp Oper SS	2	0	0	0	0	0	0	0	0
Labor & Exp Oper SS	2	71,118	47,094	23,704	0	0	0	0	320
Purchased Water	1	0	0	0	0	0	0	0	0
TOTAL SS EXPENSE - OPERATION		71,118	47,094	23,704	0	0	0	0	320
Misc Exp Oper SS	2	0	0	0	0	0	0	0	0
Misc Exp Oper SS	2	439	291	146	0	0	0	0	2
Rents Oper SS	2	0	0	0	0	0	0	0	0
Super & Eng Maint SS	2	0	0	0	0	0	0	0	0
Struct & Improve Maint SS	2	0	0	0	0	0	0	0	0
Struct & Improve Maint SS	2	0	0	0	0	0	0	0	0
Collect & Impound Maint SS	2	0	0	0	0	0	0	0	0
Collect & Impound Maint SS	2	0	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0	0
Infilt Gall & Tunnels Maint SS	2	0	0	0	0	0	0	0	0
Infilt Gall & Tunnels Maint SS	2	0	0	0	0	0	0	0	0
Supply Mains Maint SS	2	0	0	0	0	0	0	0	0
Supply Mains Maint SS	2	0	0	0	0	0	0	0	0
Misc Plant Maint SS	2	0	0	0	0	0	0	0	0
Misc Plant Maint SS	2	16,687	11,050	5,562	0	0	0	0	75
TOTAL SS EXPENSE - MAINTENANCE		17,126	11,341	5,708	0	0	0	0	77
TOTAL SS EXPENSE		88,244	58,435	29,412	0	0	0	0	397
POWER AND PUMPING EXPENSES									
Super & Eng Oper P	6	59,008	38,057	19,065	188	0	0	0	1,697
Fuel for Power Prod	1	5,820	5,780	0	0	0	0	0	40
Labor & Exp Oper Pwr Prod	6	(12,054)	(7,774)	(3,895)	(38)	0	0	0	(347)
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0	0
Purch Fuel/Power for Pump	1	706,901	702,094	0	0	0	0	0	4,807
Labor & Exp Oper Pump	6	489,544	315,733	158,172	1,559	0	0	0	14,080
Labor & Exp Oper Pump	6	644	415	208	2	0	0	0	19
Expenses Transferred	6	0	0	0	0	0	0	0	0
Misc Exp Oper P	6	10,589	6,829	3,421	34	0	0	0	305
Rents Oper P	6	0	0	0	0	0	0	0	0
TOTAL PUMPING EXPENSE - OPERATION		1,260,451	1,061,135	176,972	1,744	0	0	0	20,600
Super & Eng Maint P	6	21,275	13,721	6,874	68	0	0	0	612
Struct & Improve Maint P	6	0	0	0	0	0	0	0	0
Struct & Improve Maint P	6	0	0	0	0	0	0	0	0
Power Prod Equip Maint P	6	0	0	0	0	0	0	0	0

Exhibit No. PRH-R3

MISSOURI-AMERICAN WATER COMPANY
ST. JOSEPH DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2007, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Power Prod Equip Maint P	6	0	0	0	0	0	0	0	0
Pump Equip Maint P	6	0	0	0	0	0	0	0	0
Pump Equip Maint P	6	409	264	132	1	0	0	0	12
TOTAL PUMPING EXPENSES - MAINTENANCE		21,684	13,985	7,006	69	0	0	0	624
TOTAL PUMPING EXPENSES		1,282,135	1,075,120	183,978	1,813	0	0	0	21,224
WATER TREATMENT									
Super & Eng Oper WT	2	73,253	48,508	24,415	0	0	0	0	330
Chemicals	1	739,670	734,640	0	0	0	0	0	5,030
Labor & Exp Oper WT	2	0	0	0	0	0	0	0	0
Labor & Exp Oper WT	2	60,516	40,074	20,170	0	0	0	0	272
Misc Exp Oper WT	2	4,833	3,200	1,611	0	0	0	0	22
Misc Exp Oper WT	1	296,976	294,957	0	0	0	0	0	2,019
Misc Exp Oper WT	2	11,649	7,714	3,883	0	0	0	0	52
Rents Oper WT	2	99	66	33	0	0	0	0	0
TOTAL WT EXPENSE - OPERATION		1,186,996	1,129,159	50,112	0	0	0	0	7,726
Super & Eng Maint WT	2	37	25	12	0	0	0	0	0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0
WT Equip Maint WT	2	0	0	0	0	0	0	0	0
WT Equip Maint WT	2	45,111	29,873	15,035	0	0	0	0	203
TOTAL WT EXPENSE - MAINTENANCE		45,148	29,897	15,048	0	0	0	0	203
TOTAL WT EXPENSE		1,232,145	1,159,056	65,160	0	0	0	0	7,929
TRANSMISSION AND DISTRIBUTION EXPENSES									
Super & Eng Oper TD	11	11,557	2,571	378	1,838	3,415	1,975	0	1,380
Storage Facilty Exp	5	0	0	0	0	0	0	0	0
Storage Facilty Exp	5	84	36	0	36	0	0	0	12
TD Lines Exp	7	228,777	97,025	14,276	69,342	0	0	0	48,135
TD Lines Exp	7	7,429	3,151	464	2,252	0	0	0	1,563
Meter Expense	9	132,845	0	0	0	132,845	0	0	0
Meter Expense	9	267	0	0	0	267	0	0	0
Customer Install Exp	10	81,062	0	0	0	0	77,001	0	4,061
Customer Install Exp	10	0	0	0	0	0	0	0	0
Misc Exp Oper TD	11	8,262	1,838	270	1,314	2,441	1,412	0	986
Misc Exp Oper TD	11	2,723	606	89	433	805	465	0	325
Misc Exp Oper TD	11	51,600	11,481	1,687	8,204	15,248	8,818	0	6,161
Rents Oper TD	11	0	0	0	0	0	0	0	0
M & S Oper TD Mains	11	0	0	0	0	0	0	0	0
TOTAL T & D EXPENSE OPERATION		524,606	116,708	17,164	83,419	155,021	89,671	0	62,623
Super & Eng Maint TD	12	9,447	1,443	213	1,032	1,632	613	0	4,516
Struct & Improve Maint TD	12	395	60	9	43	68	26	0	189
Struct & Improve Maint TD	12	527	80	12	58	91	34	0	252
Dist Res Stand Maint TD	5	0	0	0	0	0	0	0	0

Exhibit No. PRH-R3

MISSOURI-AMERICAN WATER COMPANY
ST. JOSEPH DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2007, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
TD Main Maint TD	7	62,458	26,489	3,897	18,931	0	0	0	13,141
TD Main Maint TD	7	0	0	0	0	0	0	0	0
Fire Main Maint TD	8	0	0	0	0	0	0	0	0
Fire Main Maint TD	8	0	0	0	0	0	0	0	0
Services Maint TD	10	11,858	0	0	0	0	11,264	0	594
Services Maint TD	10	0	0	0	0	0	0	0	0
Meters Maint TD	9	29,957	0	0	0	29,957	0	0	0
Meters Maint TD	9	0	0	0	0	0	0	0	0
Hydrants Maint TD	8	69,162	0	0	0	0	0	0	69,162
Hydrants Maint TD	8	0	0	0	0	0	0	0	0
Misc Plant Maint TD	12	49	7	1	5	8	3	0	23
Mat and Sup Maint TD	12	133,945	20,453	3,014	14,627	23,132	8,693	0	64,026
Misc Maint TD	12	0	0	0	0	0	0	0	0
Amort Def Maint TD	5	393,150	168,543	0	169,684	0	0	0	54,923
TOTAL T & D EXPENSE - MAINTENANCE		710,947	217,076	7,146	204,379	54,888	20,633	0	206,826
TOTAL T & D EXPENSE		1,235,554	333,784	24,309	287,798	209,909	110,304	0	269,449
CUSTOMER ACCOUNTS									
Supervision CA	13	48,491	0	0	0	0	0	47,895	596
Meter Reading Exp CA	14	291,101	0	0	0	0	0	291,101	0
Meter Reading Exp CA	14	3,834	0	0	0	0	0	3,834	0
Meter Reading Exp CA	14	2,787	0	0	0	0	0	2,787	0
Cust Rec & Collection CA	13	10,836	0	0	0	0	0	10,703	133
Cust Rec & Collection CA	13	139,525	0	0	0	0	0	137,808	1,716
Uncollectible Accts	13	212,635	0	0	0	0	0	210,020	2,615
Misc Cust Accts Exp CA	13	0	0	0	0	0	0	0	0
Misc Cust Accts Exp CA	13	0	0	0	0	0	0	0	0
Misc Cust Accts Exp CA	13	37,372	0	0	0	0	0	36,912	460
Cust Serv & Info Exp CA	13	0	0	0	0	0	0	0	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		746,581	0	0	0	0	0	741,060	5,521
ADMINISTRATIVE AND GENERAL EXPENSES									
Salaries AG	15	252,971	79,332	27,017	25,828	18,720	9,841	66,127	26,107
Other Supplies & Exp AG	15	99	31	11	10	7	4	26	10
Other Supplies & Exp AG	15	114,072	35,773	12,183	11,647	8,441	4,437	29,818	11,772
Other Supplies & Exp AG	15	82,365	25,830	8,797	8,410	6,095	3,204	21,530	8,500
Mgmt Fees-Coporate/Shared Service Center	15	1,127,824	353,686	120,452	115,151	83,459	43,872	294,813	116,391
Mgmt Fees-Call Center	13	430,255	0	0	0	0	0	424,963	5,292
Mgmt Fees-Belleville Lab	2	42,110	27,885	14,035	0	0	0	0	189
Mgmt Fees- Financial ITS	15	185,247	58,094	19,784	18,914	13,708	7,206	48,424	19,118
Outside Services AG	15	99,571	31,225	10,634	10,166	7,368	3,873	26,028	10,276
Outside Services AG	15	135,750	42,571	14,498	13,860	10,046	5,281	35,485	14,009
Property Insurance	15	0	0	0	0	0	0	0	0
Ins Gen Liab Oper AG	15	194,393	60,962	20,761	19,847	14,385	7,562	50,814	20,061
Ins Work Comp AG	16	60,937	19,999	8,123	3,894	6,130	3,309	13,473	6,008
Ins Other Oper AG	15	42,780	13,416	4,569	4,368	3,166	1,664	11,183	4,415

Exhibit No. PRH-R3

MISSOURI-AMERICAN WATER COMPANY
ST. JOSEPH DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2007, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Property Insurance	15	15,211	4,770	1,625	1,553	1,126	592	3,976	1,570
Injuries & Damages	16	632	207	84	40	64	34	140	62
Employee Pension & Benefits	16	541,741	177,799	72,214	34,617	54,499	29,417	119,779	53,416
Employee Pension & Benefits	16	115,358	37,860	15,377	7,371	11,605	6,264	25,506	11,374
Employee Pension & Benefits	16	50,115	16,448	6,680	3,202	5,042	2,721	11,080	4,941
Reg Commision Exp	15	34,421	10,794	3,676	3,514	2,547	1,339	8,998	3,552
Rents AG	15	50,462	15,825	5,389	5,152	3,734	1,963	13,191	5,208
Goodwill Advertising Exp	15	2,030	637	217	207	150	79	531	209
Misc Exp AG	15	325,663	102,128	34,781	33,250	24,099	12,668	85,128	33,608
Research & Development	15	0	0	0	0	0	0	0	0
TOTAL A & G OPERATIONS		3,904,008	1,115,273	400,907	321,003	274,391	145,330	1,291,012	356,091
General Plant Maint AG	15	0	0	0	0	0	0	0	0
General Plant Maint AG	15	15,757	4,941	1,683	1,609	1,166	613	4,119	1,626
TOTAL A & G EXPENSE - MAINTENANCE		15,757	4,941	1,683	1,609	1,166	613	4,119	1,626
TOTAL A & G EXPENSE		3,919,765	1,120,214	402,590	322,612	275,557	145,943	1,295,131	357,717
Total Operation & Maintenance Expenses		8,504,424	3,746,609	705,449	612,223	485,466	256,247	2,036,192	662,237
DEPRECIATION EXPENSE									
Struct & Imp SS	2	51,415	34,047	17,137	0	0	0	0	231
Struct & Imp P	6	79,625	51,354	25,727	254	0	0	0	2,290
Struct & Imp WT	2	397,485	263,215	132,482	0	0	0	0	1,789
Struct & Imp TD	7	10,716	4,545	669	3,248	0	0	0	2,255
Struct & Imp Offices	15	0	0	0	0	0	0	0	0
Struct & Imp Store,Shop,Gar	15	4,910	1,540	524	501	363	191	1,283	507
Struct & Imp Misc	15	40,039	12,556	4,276	4,088	2,963	1,558	10,466	4,132
Collect & Impounding	1	0	0	0	0	0	0	0	0
Lake, River & Other Intakes	2	112	74	37	0	0	0	0	1
Wells & Springs	2	586	388	195	0	0	0	0	3
Supply Mains	2	149,821	99,211	49,935	0	0	0	0	674
Power Generation Equip	6	267	172	86	1	0	0	0	8
Pump Equip Electric	6	119,873	77,312	38,731	382	0	0	0	3,448
Pump Equip Other	6	64	41	21	0	0	0	0	2
Pump Equip WT	6	1,007	649	325	3	0	0	0	29
WT Equip Non-Media	2	573,789	379,963	191,244	0	0	0	0	2,582
WT Equip Filter Media	2	542	359	181	0	0	0	0	2
Dist Reservoirs & Standpipe	5	34,660	14,859	0	14,959	0	0	0	4,842
Elevated Tanks & Standpipes	5	6,986	2,995	0	3,015	0	0	0	976
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	7	45,189	19,165	2,820	13,697	0	0	0	9,508
TD Mains 4 & Less "	4	14,544	0	5,460	5,514	0	0	0	3,571
TD Mains 6 to 8" "	4	108,836	0	40,857	41,260	0	0	0	26,719
TD Mains 10 to 16" "	3	191,377	118,309	59,576	0	0	0	0	13,492
TD Mains 18 & Grtr "	3	74,898	46,302	23,316	0	0	0	0	5,280

Exhibit No. PRH-R3

MISSOURI-AMERICAN WATER COMPANY
ST. JOSEPH DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2007, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Services	10	87,100	0	0	0	0	82,736	0	4,364
Meters Bronze Case	9	65,662	0	0	0	65,662	0	0	0
Meters Plastic Case	9	1,956	0	0	0	1,956	0	0	0
Meters Other	9	6,673	0	0	0	6,673	0	0	0
Meters Other-Rem Rdr Unts	9	1,286	0	0	0	1,286	0	0	0
Meter Installations	9	76,810	0	0	0	76,810	0	0	0
Meter Installation Other	9	0	0	0	0	0	0	0	0
Meter Vaults	9	4,471	0	0	0	4,471	0	0	0
Hydrants	8	53,198	0	0	0	0	0	0	53,198
Utility Plant Acquisition Adjustment	17	0	0	0	0	0	0	0	0
Other P/E WT Res Hand Equip	2	48,264	31,960	16,086	0	0	0	0	217
Other P/E TD	7	0	0	0	0	0	0	0	0
Other P/E CPS	15	0	0	0	0	0	0	0	0
Office Furniture & Equip	15	8,783	2,754	938	897	650	342	2,296	906
Comp & Periph Equip	15	41,068	12,879	4,386	4,193	3,039	1,598	10,735	4,238
Computer Software	15	76,600	24,022	8,181	7,821	5,668	2,980	20,023	7,905
Comp Software Personal	15	4,375	1,372	467	447	324	170	1,144	452
Data Handling Equipment	15	2,565	804	274	262	190	100	670	265
Other Office Equipment	15	11,773	3,692	1,257	1,202	871	458	3,077	1,215
Trans Equip Lt Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	0	0	0	0	0	0	0	0
Trans Equip Other	15	0	0	0	0	0	0	0	0
Stores Equipment	15	4,956	1,554	529	506	367	193	1,295	511
Tools,Shop,Garage Equip	15	44,085	13,825	4,708	4,501	3,262	1,715	11,524	4,550
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	13,796	9,136	4,598	0	0	0	0	62
Laboratory Equip Other	2	0	0	0	0	0	0	0	0
Power Operated Equipment	15	10,028	3,145	1,071	1,024	742	390	2,621	1,035
Comm Equip Non-Telephone	15	3,290	1,032	351	336	243	128	860	340
Comm Equip Telephone	15	2,027	636	216	207	150	79	530	209
Misc Equipment	15	5,175	1,623	553	528	383	201	1,353	534
Total Depreciation Expense		2,480,682	1,235,491	637,215	108,845	176,074	92,838	67,879	162,340
Amort-Other UP	18	8,988	4,646	2,617	391	446	235	83	571
Amort-Intangible Fin	2	11,281	7,470	3,760	0	0	0	0	51
Taxes Other Than Income									
Utility Reg Assessment Fee	19	145,009	70,344	30,162	7,874	7,990	4,205	14,385	10,049
Property Taxes	18	983,230	508,232	286,317	42,771	48,768	25,662	9,046	62,435
FUTA	16	2,808	922	374	179	282	152	621	277
FICA	16	135,572	44,495	18,072	8,663	13,639	7,362	29,975	13,367
SUTA	16	5,779	1,897	770	369	581	314	1,278	570
Other Taxes & Licenses	15	8,326	2,611	889	850	616	324	2,176	859
Gross Receipts Tax	19	0	0	0	0	0	0	0	0
Total Taxes, Other Than Income		1,280,724	628,500	336,584	60,706	71,877	38,019	57,481	87,558

Exhibit No. PRH-R3

MISSOURI-AMERICAN WATER COMPANY
ST. JOSEPH DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2007, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Income Taxes	18	3,024,440	1,563,333	880,717	131,563	150,012	78,938	27,825	192,052
Utility Income Available for Return	18	7,386,393	3,818,027	2,150,918	321,308	366,365	192,785	67,955	469,036
Total Cost of Service		22,696,932	11,004,076	4,717,260	1,235,037	1,250,240	659,062	2,257,413	1,573,844
Less: Other Water Revenues	19	635,330	308,199	132,149	34,498	35,007	18,425	63,025	44,028
Revenue Shift	19	0	0	0	0	0	0	0	0
Total Other Water Revenues		635,330	308,199	132,149	34,498	35,007	18,425	63,025	44,028
Total Cost of Service Related to Sales of Water		22,061,602	10,695,877	4,585,112	1,200,538	1,215,233	640,637	2,194,389	1,529,816
Reallocation of Public Fire	20	0	0	0	0	0	0	0	0
Total		$ 22,061,602	$ 10,695,877	$ 4,585,112	$ 1,200,538	$ 1,215,233	$ 640,637	$ 2,194,389	$ 1,529,816
Total Annual Water Volume, Thousnad Gallons			4,811,753						
Base cost per Thousand Gallons			$ 2.223						

Exhibit No. PRH-R4

MISSOURI-AMERICAN WATER COMPANY
COMPARISON OF COMPANY AND MIEC FACTOR 4

Customer Classification	Company's Factor 4 Average Hourly Consumption Thousand Gallons	Allocation Factor	Mr. Gorman's Factor 4 Average Hourly Consumption Thousand Gallons	Allocation Factor
(1)	(2)	(3)	(2)	(3)
Rate A - Res/Com/Ind/OPA	4,895.6	0.9783	4,895.6	0.9898
Rate B - Sales for Resale	0.0	0.0000	0.0	0.0000
Rate J - Manufacturing	**67.0** *	**0.0134**	**8.7** **	**0.0018**
Rate G	0.0	0.0000	0.0	0.0000
Other	0.0	0.0000	0.0	0.0000
Rate F - Private Fire	8.9	0.0018	8.9	0.0018
Rate E - Public Fire	32.4	0.0065	32.5	0.0066
Total	5,003.9	1.0000	4,945.7	1.0000

* Based on 10% of Rate J usage resulting in a factor of 1.34%.
** Based on 1.3% of Rate J usage resulting in a factor of 0.18%.