Exhibit No.:
Issue: Cost Allocation, Rate Design & Related Matters
Witness: Michael J. Ileo
Party: City of Joplin, MO
Type of Exhibit: Rebuttal Testimony

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**

REBUTTAL TESTIMONY AND SCHEDULES OF MICHAEL J. ILEO, PH.D.

ON BEHALF OF
THE CITY OF JOPLIN, MISSOURI

SEPTEMBER 30, 2008

Technical Associates, Inc.

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OF MICHAEL J. ILEO, PH.D.

1.0 INTRODUCTION

Q. PLEASE STATE YOUR NAME, BUSINESS POSITION, AND ADDRESS.

A. My name is Michael J. Ileo. I am Chief Economist and Board Chairman of Technical Associates, Inc., ("TAI") an economic and financial consulting firm with business offices at 1051 East Cary Street, Suite 601, Richmond, Virginia 23219.

Q. HAVE YOU PREVIOUSLY FILED PREPARED TESTIMONY IN THIS PROCEEDING?

A. Yes. On behalf of the City of Joplin, Missouri ("Joplin"), I submitted Direct Testimony and Schedules dated September 3, 2008. In that testimony, I offer several recommendations for the consideration of the Missouri Public Service Commission ("Commission") that will greatly facilitate evaluations of future applications made by Missouri American Water Company ("MAWC" or "Company") and otherwise fulfill the goals of sound regulatory practice.

Q. PLEASE OUTLINE THE RECOMMENDATIONS MADE IN YOUR DIRECT TESTIMONY.

A. The recommendations in my Direct Testimony involve requirements mandating the Company: (a) to submit consistent data by Uniform System of Accounts ("USOA"); (b) to disclose amounts identified by USOA in terms of their originating sources (e.g., directly incurred at its District levels or stemming from transactions with affiliates through agreements or allocations; and, (c) to fully document USOA attributions that are not of a directly incurred nature.

Q. HAS THE DIRECT TESTIMONY OF PARTIES OTHER THAN THE COMPANY CAUSED YOU TO MODIFY YOUR RECOMMENDATIONS?

A. No. Indeed, the contrary is true, as the need for implementing my recommendations has become more apparent upon reviewing the August 18 and September 3, 2008 filings of other parties. Except for the submissions of the Utility Services Division of the Commission ("Commission Staff") to a substantial degree, other parties to this proceeding appear to have adopted the methods of presentation in the Company's filings, including the absence of consistent USOA reporting.

I refer most notably to the submissions of the Missouri Industrial Energy Consumers ("MIEC") and the Office of Public Counsel ("OPC"). The indicated adoption of MAWC formats should not be interpreted as a criticism of MIEC or OPC, for I know from personal experience that far fewer resources must be expended when the USOA conversion step is omitted. The same tracking and verification difficulties outlined in my direct testimony, however, necessarily arise with respect to the filings of MIEC and OPC.

In contrast, and except regarding District true-up allowance estimates (e.g., the $4,014,993 shown in its Schedule 1 for Joplin), Commission Staff has consistently reported all of the details involving its accounting schedules in terms of USOA for both the December 31, 2007 test year and the March 31, 2008 update period. Further, and while not specifically designated by USOA, descriptions and amounts in the customer class cost of service study ("CCOSS") of Commission Staff appear to accurately track in most instances the same information in its accounting schedules. If a column with USOA Nos. were added to Commission Staff's CCOSS, evaluations would be additionally facilitated. And, if consistent and documented USOA reporting were required of MAWC, no tracking and verification difficulties likely would be encountered in evaluating the submission of any party.

Q. IS IT POSSIBLE, DR. ILEO, TO SECURE USOA PRESENTATION AND DOCUMENTATION DATA THROUGH INFORMATION REQUESTS?

A. Yes, conceivably, but such a burdensome task requiring numerous discovery should not be posed. Consider, for example, that the workpapers underlying Ms. Meisenheimer's preliminary CCOSS on behalf of OPC consist of some 2,500 pages. Similar volumes pertain to each CCOSS at issue in this case. If Ms. Meisenheimer were asked in a series of discovery to designate all of her preliminary CCOSS data in terms of

USOA, meaningful responses likely would require significant original work as she appears to have adopted (understandably) the CCOSS format of Mr. Herbert.

The need for such inquiries of OPC, MIEC, MAWC, or even Commission Staff will be significantly lessened (if not eliminated) upon implementing my recommendations. All parties would then utilize the USOA reporting formats of the Company, making whatever proforma, allocation, and other adjustments that they deem appropriate. Discovery in the future, therefore, would be directed at probing the bases of these adjustments, not at tracking, categorizing, and otherwise documenting data. As a result of this requirement, as well as full documentation by the Company in its applications with the Commission, I further foresee that the time and effort needed to process rate cases will be materially reduced.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony on behalf of Joplin is to offer a number of additional recommendations for the Commission's consideration. More specifically, based on the results of studies conducted to date by TAI under my direction and supervision, I have concluded that the Commission should:

(1) require Commission Staff to fully document its true-up allowance estimates so that its attendant revenue requirement and rate design proposals by District are fully understood, to the extent that this uncertain and cumbersome true-up process is allowed to continue;

(2) replace the true-up process with a fully-adjusted test year procedure, where the concept of "known and measurable" changes would be limited to six months after the close of the per books test year and assessed within the context of future rate cases without additional rounds of testimony and hearings;

(3) permit the phasing-in of significant revenue requirement increases through individual District tariff riders structured in accordance with the goal of rate change gradualism;

(4) adopt the proposal of Commission Staff to eliminate the declining-block nature of the Company's rate designs;

(5) reject, as the sole basis for establishing monthly minimum charges, the results of the customer cost calculation procedures of both the Company and Commission Staff; and,

(6) give little, if any, weight to the results of MAWC's cost allocations due to a host of internal inconsistencies, as well as highly questionable allocation factors.

I may offer further recommendations on behalf of Joplin for the consideration of the Commission at the true-up phase of this proceeding. The nature and extent of these possible recommendations will depend largely on the true-up findings of Commission Staff and its resulting ultimate proposals in this case.

2.0 TRUE-UP ALLOWANCE DOCUMENTATION

Q. WHY SHOULD COMMISSION STAFF BE REQUIRED TO DOCUMENT ITS TRUE-UP ESTIMATES?

A. As with the Company's filings, full documentation should be generally required for the submissions made with the Commission by all other parties. This is of particular significance with respect to the true-up estimates issue, for in the absence of corresponding documentation, the end-results of Commission Staff's positions remain highly uncertain. Only upon a series of "what-if" scenarios might one attempt to assess the potential rate impacts corresponding to the proposals of Commission Staff. Without requisite documentation, therefore, ratepayers are effectively prevented from performing any meaningful analyses, at least at this stage of the proceeding.

Q. PLEASE EXPLAIN THE UNCERTAINTIES TO WHICH YOU REFER?

A. While my remarks are likely to be generally applicable for all Districts, I will focus on the circumstances confronting Joplin. In its Accounting Schedule 1 for Joplin, Commission Staff shows a lowering of the Company's revenue requirement by $1.223 million at a proposed mid-point capital cost of 7.73% and upon various proposed test year adjustments through the update period of March 31, 2008. The bases of the $1.223 million reduction are fully documented in the filings of Commission Staff.

However, Accounting Schedule 1 of Commission Staff for Joplin also reports an "Allowance for Known and Measurable Changes/True-Up Estimate" at $4.015 million, such that a proposed net increase in revenue requirement of $2.792 million appears to be

represented in Accounting Schedule 1 for Joplin. I understand from Joplin legal counsel that, through informal means (i.e., conferences), Commission Staff once advised the parties that there were few details (such as by USOA) underlying the true-up estimate of $4.015 million for Joplin or corresponding amounts for other MAWC Districts. More recently, as this rebuttal testimony has been in final preparation, a Commission Staff response to Joplin discovery has been received presenting: (1) the estimation procedure applied in the derivation of the $4.015 million true-up figure for Joplin, which involves the multiplication of return, income tax, and depreciation expense loadings by an undetailed amount of plant additions; and, (2) a correction to this estimation procedure, whereby the true-up figure for Joplin rises to $4.507 million.

At the same time, the CCOSS performed by Commission Staff with respect to Joplin excludes consideration of either a $4.015 or $4.507 million true-up estimate, such that the rate levels set forth therein reflect an overall revenue change for Joplin from $13.320 million to $12.097 million, a decrease of $1.223 million. To illustrate, the CCOSS of Commission Staff presents comparisons between Present and Proposed Proforma Rates for Joplin customer classes as illustrated below for Residential 5/8" monthly water service provided by the Company:

Residential Monthly Rate Element	Present Rates	Proposed Rates
Minimum Charge	$11.62	$8.73
Volume Charge Per 1,000 Gallons		
First Block	$2.6512	$2.5504
Second Block	$1.4853	$2.5504
Third Block	$1.1463	$2.5504

For the reasons previously noted, the Proposed Rates above for Joplin residential customers do not portray what Commission Staff might eventually and ultimately conclude in this regard, even if all of its current actual proposals in this proceeding were adopted. In terms of end-results, therefore, neither Joplin nor its constituents are able to meaningfully evaluate the positions of Commission Staff at this time given the uncertainties posed.

Q. WILL YOU ILLUSTRATE THE INABILITY TO CONDUCT MEANINGFUL ANALYSES?

A. Yes. In the first instance, the undetailed true-up estimate of $4.015 million for Joplin serves to transform an aggregate 9.24% revenue decrease (i.e., -$1.223/$13.320) into an aggregate 20.96% revenue increase (i.e., $2.792/$13.320). If the true-up estimate is inaccurate by ±25%, then such a projection error could mean that Commission Staff will have actually proposed a revenue increase for Joplin of nearly 29%; i.e., [(1.25x$4.015)-$1.223]/$13.320.

Further, the distribution of the true-up amount among USOA may have a material impact on Joplin residential rates. Under the ±25% estimation error scenario, for example, the proposed flat commodity rate in the CCOSS of Commission Staff for Joplin could rise from $2.5504 to $4.2448 per 1,000 gallons if all of the true-up amount pertained to USOA excluded from Commission Staff's calculations of customer costs. The derivation of the $4.2448 is based on data in Commission Staff CCOSS Schedule 1-1 and 2-SJOP as presented in Schedule MJI-2 to my testimony.

Given present residential prices of MAWC in Joplin as reported earlier in my testimony, a commodity rate rise to $4.2448 would be of substantial concern. However, this and many other potential outcomes are shrouded in great uncertainty, which is removable only upon necessary full documentation from Commission Staff regarding its true-up estimates.

3.0 FULLY-ADJUSTED TEST YEAR

Q. IS THERE AN ALTERNATIVE TO REQUIRING COMMISSION STAFF TO DOCUMENT ITS TRUE-UP ESTIMATES?

A. Yes. A more effective solution to the uncertainties posed by the current true-up process is to replace it with a procedure that far better comports with the goals of sound regulatory practice. More specifically, I recommend that the Commission adopt for ratemaking in the future a fully-adjusted test year, where all adjustments would be limited to anticipated experience within the period extending six months beyond the close of the per books test year.

If the indicated fully-adjusted test year were in place for this proceeding, none of the uncertainties and burdens described earlier in my testimony would prevail. All parties would focus on the 2007 test year of the Company, including its proposed adjustments for expected events through June 30, 2008. No true-up at some point in the future on a retrospective basis would be required, such that additional testimony and hearings would become unnecessary. Put otherwise, the Commission would render its decision based on the best available information through June 30, 2008, evaluated solely within the present context of this case without some future and unknown true-up process. And it follows, accordingly, that the true-up estimates of Commission Staff would also become unnecessary.

Q. WHAT IS THE BASIS OF YOUR RECOMMENDATION?

A. As I read the August 18, 2008 Cost of Service Report of Commission Staff, specifically at Pages 2 and 3, no statute, rule, or precedence governs the true-up process. Thus, a host of uncertainties arise at the outset. The referenced discussion of Commission Staff also notes that "true-ups involve the filing of additional sets of testimony and the scheduling of additional evidentiary hearings," which creates further obstacles to and burdens for a meaningful rate case participation by a party such as Joplin.

Based on the referenced discussion, moreover, the need for a true-up process appears to be rooted in MAWC's request for a fully-adjusted test year through September 30, 2008, largely involving plant that it expects to place in service between December 31, 2008 and that date. Commission Staff, on the other hand, has applied an update period beyond the 2007 test year of March 31, 2008 in its revenue requirement determinations, albeit coupled with highly tentative true-up estimates presumably as a means of filling the void for the period of April 1, 2007 through September 30, 2008. These tentative and undocumented estimates are indicative of Commission Staff's position that "it would not be able to perform a true-up audit" within the confines of this case given its initial procedural scheduling. Commission Staff's concerns were addressed by a June 30, 2008 Order of the Commission, "which rescheduled the evidentiary hearing and true-up

hearing dates." Thus, with the layering of future evidence and hearings on top of present uncertainties, the burdens for Joplin (undue in my judgment) have mounted.

While not so stated in its Cost of Service Report, Commission Staff's position appears to rest on the view that a retrospective audit is essential if a test year is to be fully-adjusted for anticipated events extending as far as nine months beyond the close of the per books period. While I share the concerns of Commission Staff, I also submit that the adoption of my recommendation will address this concern in a balanced manner that obviates the need for retrospective true-up audits, new testimony and protracted hearings, and related events that effectively serve to bar meaningful rate case participation.

Q. WHEN YOU SAY, DR. ILEO, THAT YOU SHARE COMMISSION STAFF'S CONCERNS, TO WHAT DO YOU REFER?

A. Regulated utilities are afforded an opportunity rarely enjoyed by competitive firms; i.e., the ability to begin recovering with near certainty the investment costs of new plant and equipment, including allowances for funds used during construction. Sound regulatory practice necessitates, therefore, considerable assurance that this new investment meets such standards as prudently incurred, used and useful, and honest and efficient management. The longer the period between the close of the per books test year and the end of the fully-adjusted test year, the greater is the scrutiny required to ensure that these regulatory standards have been fulfilled with respect to projected new plant and equipment. Retrospective true-up audits serve to address these matters, but they also impose a significant and unnecessary burden on the regulatory process.

Q. WHY DO YOU CHARACTERIZE RETROSPECTIVE TRUE-UP AUDITS AS IMPOSING AN UNNECESSARY BURDEN ON THE REGULATORY PROCESS?

A. The need for retrospective true-up audits should not arise in the context of a rate case, as the responsibility of demonstrating that projected new investment costs meet the standards referenced in my previous answer should rest solely with the applicant utility. If this demonstration is found to be highly speculative or otherwise unreasonable, then the forecasted new investment should not be allowed in determining revenue requirements within the context of the rate case at issue. Relative to what occurs in

competitive markets, a strict adherence to the indicated decision-making framework is fully consistent with sound regulatory practice.

Recall, again, that unregulated businesses bear great risk when undertaking new investment projects. To illustrate, when General Motors retools a manufacturing plant, considerable uncertainty exists as to how and when corresponding investment costs are to be recovered. Automobile, truck, and related market conditions over an extended period of time will ultimately determine these outcomes.

Regulated utilities, on the other hand, are nearly certain that they will be able to recover new investment costs assuming prudency and other regulatory standards have been fulfilled. This recovery, moreover, will occur in a known and measurable manner; i.e., annual depreciation over a given time period plus a fair return on the undepreciated portion of the investment. Recovery also will begin shortly after the new investment in placed into service. The only uncertainty confronted by a regulated utility is precisely when recovery will start, which will depend on its ability to demonstrate reasonableness. An initial failure in this regard, moreover, is easily rectified in a subsequent rate case.

Against this backdrop, I submit that retrospective true-up audits are unwarranted, inconsistent with sound regulatory practice, and impose an undue burden on a participant such as Joplin. Adoption of the fully adjusted test year procedure without true-ups that I propose will remedy present circumstances. Further in this regard, if Commission Staff concludes that the only way to meet reasonableness standards is by way of a true-up, then the corresponding projected new plant and equipment should be disallowed for ratemaking within the context of the proceeding in question.

Q. PLEASE DESCRIBE THE UNDUE BURDEN PLACED ON JOPLIN.

A. The undue burden attributable to retrospective true-up audits is of twofold nature. First, until the true-up phase of this case begins, and despite the present large volume of materials that have required consideration, Joplin is unable to gauge the comparative revenue and rate impacts that it will confront under the proposals of the Company relative to those of Commission Staff. Second, in order to reach the point in time when such comparative analyses can be meaningfully performed and addressed, an expenditure of considerable resources is required.

Q. WHY WAS SIX MONTHS AFTER THE CLOSE OF THE PER BOOKS TEST YEAR SELECTED IN YOUR FULLY-ADJUSTED TEST YEAR PROPOSAL?

A. In my professional experience, such a six-month timeframe is frequently utilized by regulatory authorities. Moreover, it strikes a balance between the March 31, 2008 update period currently employed by Commission Staff and the September 30, 2008 projection period proposed by the Company.

Q. SHOULD THE COMMISSION DECIDE TO CONTINUE WITH A TRUE-UP PROCEDURE, ARE THERE OTHER MEANS OF EASING RATE CASE PARTICIPATION BURDENS?

A. Yes. Along with the adoption of the presentation and documentation methods recommended in my Direct Testimony, the implementation of a bifurcated proceeding would ease the burdens of participating in a rate case involving MAWC should the Commission wish to continue with the true-up process. Phase I would be directed at establishing overall and District revenue requirements for the Company, while Phase II would address customer class cost of service and rate design issues. Thus, an intervenor such as Joplin with limited resources would be able to tailor its rate case participation in Phases I and II to matters of primary interest without confronting the considerable uncertainty that currently exists.

With a bifurcated proceeding, for example, the difficulties encountered in meeting current rebuttal stage requirements would be substantially lessened. Presently, only roughly a 30 to 45 day period has been available to address the direct case filings of parties other than MAWC depending on whether August 18 or September 3, 2008 is considered. Normally, such a period of time would be adequate if coupled with an expeditious response timeframe; e.g., 7 to 10 days. However, given the complexities and expansiveness of the revenue requirement, cost allocation, and rate design issues at hand (as exhibited in the submissions of Commission Staff), as well as that an expeditious discovery response period has not been adopted, 30 to 45 days for the preparation of rebuttal testimony has been insufficient -- especially with the uncertainties of the true-up procedure. A separation of issues into Phase I and II would greatly ameliorate these difficulties.

Q. WOULD A BIFURCATED PROCEEDING TAKE LONGER TO PROCESS?

A. Yes, at least in overall terms and if a nine-month timeframe is utilized as the true-up standard. But at the same time, revenue requirement findings by the Commission will be both made and put into effect sooner, such that regulatory lag will be shortened from a revenue requirement perspective. On the other hand, MAWC's customers will confront two sets of rate changes; i.e., Phase I findings implemented at presently authorized rate structures in an across-the-board manner, and Phase II findings that institute new rate designs.

For reasons suggested, a fully-adjusted test year using a six-month adjustment period without a true-up is preferable to a bifurcated proceeding. Relative to present circumstances, however, both types of regulatory procedures will better accommodate rate case participation by parties representing vital public interests such as Joplin.

4.0 RATE INCREASE PHASE-INS

Q. WHY DO YOU REQUEST THAT THE COMMISSION PERMIT A PHASING-IN OF THE RATE INCREASES THAT MAY RESULT FROM THIS CASE?

A. My proposal is largely directed at Joplin, although it may be equally applicable to other MAWC Districts; e.g., the Company proposes revenue increases of about 20% or more for each of its three Sewer Districts and six of its ten present Water Districts as reported in Appendix A of its Minimum Filing Requirements attached to Mr. Petry's March 31, 2008 Direct Testimony.

With particular respect to Joplin, I noted in my Direct Testimony (Page 6) that it sustained roughly a 62% increase in aggregate rates less than a year ago. Further given the evidence to date in this proceeding, a significant probability exists that Joplin will confront another substantial (double-digit percent) rate hike. MAWC requests, for example, that Joplin revenues be increased by nearly 39%. Albeit that the final position of Commission Staff in this regard remains unknown, the revenue increase implicit in its current true-up estimate for Joplin is about 21%, and 29% if this estimate is subject to a +25% projection error.

The need to implement some form of rate change gradualism for Joplin households and businesses is apparent in my judgment. Current and likely near-term depressed economic conditions further attest to the desirability of a rate change gradualism provision. A phasing-in of the Joplin rate increase ultimately authorized by the Commission in this proceeding will achieve this objective.

Q. HOW SHOULD A PHASE-IN MECHANISM BE STRUCTURED?

A. Although the specifics of a phase-in mechanism will depend on the magnitude of the authorized rate increase under consideration, I recommend that a 6% standard be applied for the current, non-phase-in portion, which equates to about twice the long-term general rate of inflation. The remaining portion; i.e., that to be phased-in, would be subject to the same standard in terms of amount, but specific provisions again will depend on the magnitude of the rate increase in question.

Q. PLEASE PROVIDE AN ILLUSTRATION OF THE PHASE-IN MECHANISM YOU ENVISION.

A. Suppose the Commission finds that a 21% revenue increase is appropriate for Joplin, which is the case under Commission Staff's present-true-up estimate allowance. This would mean that, given Commission Staff's finding as to Joplin revenues at present rates of $13.320 million, a 21% increase equates to $2.797 million. Of this latter amount, $0.799 million would be put into rates immediately; i.e., (6%/21%)x$2.797 The balance, $1.998 million, would be treated as a regulatory asset directly attributable to Joplin and recoverable by the Company, including requisite carrying costs over some future period of time under a special tariff rider that is subject to the $0.799 million (6%) annual constraint.

Assuming that the $0.799 million increase occurred precisely at the start of 2009, future recovery of the remaining $1.998 million regulatory asset would take place in the following manner under the premises noted:

Year	(1) Starting Balance a/	(2) Recovery During Year b/	(3) Carrying Costs c/	(4) Ending Balance d/
2009	$1.998	$0	$0.152	$2.150
2010	$2.150	$0.799	$0.133	$1.484
2011	$1.484	$0.799	$0.082	$0.767
2012	$0.767	$0.799	$0.028	-$0.004

a/ Col. (4) in prior year.
b/ Equal to initial increase on January 1, 2009 except during 2009.
c/ Commission Staff mid-point capital cost finding (7.59%) x the average balance during the year; i.e., {Col. (1) + [Col. (1)-Col. (2)]}/2/.
d/ Cols. (1)-(2)+(3).

Thus, accompanying the assumed 21% rate increase for Joplin, an approximate four-year phase-in period would be necessary under the mechanism that I propose. The negative ending balance for 2012 in the hypothetical example means that something less than $0.799 million should be recovered by MAWC in that year.

5.0 DECLINING-BLOCK RATES

Q. PLEASE EXPLAIN YOUR SUPPORT OF THE PROPOSAL BY COMMISSION STAFF TO ELIMINATE THE DECLINING-BLOCK NATURE OF THE COMPANY'S PRESENT RATE DESIGNS.

A. Assuming that agreement prevails as to the continuing desirability of two-part pricing for utility services; i.e., usage and non-usage sensitive components, a single rate applicable to all consumption for the former component is preferable absent compelling evidence to the contrary. By the term evidence, I mean the results of intra-customer class load studies that provide cost justification for departing from a single-bock usage rate. As no such studies have been presented by MAWC to affirm the merits of its current rate designs, I support the recommendation at Page 8 of Commission Staff's September 3, 2008 CCOSS Report to eliminate the "declining block structure in the Brunswick, Joplin, Jefferson City, Mexico, Parksville, St. Charles, St. Joseph and Warrensburg districts."

I further note in this regard that the Company is proposing a comparable rate design treatment, but only for residential customers as indicated on Page 25 of Mr. Grubb's March 31, 2008 Direct Testimony; i.e., the following instructions to Mr. Herbert: "for districts other than St. Louis Metro, use a one-block structure for the residential class and two-to-four-block structure for non-residential classes." Since the same rate design principles apply regardless of customer class, Commission Staff's position should be adopted as contrasted with that of MAWC.

Q. WHY IS A SINGLE-BLOCK USAGE RATE PREFERABLE IN PRICING THE CONSUMPTION OF UTILITY SERVICES?

A. The phrase that "regulation is a surrogate for competition" embodies the notion that lessons from competitive market behavior should be applied to regulated utilities whenever possible. Overwhelming in competitive industry, goods and services are priced totally on a single-rate usage basis; e.g., dollars per gallon, per pound, per hour, etc. Not only is such pricing the simplest to administer and understand, but it further produces the greatest economic efficiency on both the demand and supply-sides of the market. This includes the fact that, when cost justifications exist, volume discounts are also observed.

In balancing the goals of sound regulatory practice, however, departures from single-part pricing have been deemed advisable for utility services in order to promote revenue stability and predictability. Put alternatively, the imposition of monthly minimum bills or customer charges enhances a utility's financial integrity by insolating it from market volatilities and attendant risks that would otherwise prevail.

But concomitantly, the use of two-part rates consisting of customer and usage charges also means that some of the production and consumption efficiencies achieved in competitive market pricing are lost. This loss is compounded when declining-block usage rates are applied in pricing utility services--again if no meaningful cost justification has been presented in support of a declining-block rate structure.

Q. HOW ARE LOAD STUDIES CAPABLE OF PROVIDING THE EVIDENCE NEEDED TO JUSTIFY DECLINING-BLOCK RATES?

A. Results of properly conducted intra-customer class load studies will establish the appropriateness, from a cost standpoint, of a declining, flat, or invested-block rate design. By hypothetical illustration, suppose a representative and statistically valid random sample is taken of residential consumption characteristics, which produces the following average per customer outcomes where consumption volumes are cast in gallons:

Monthly Gallons Consumption Range	(1) Average Daily Consumption	(2) Average Maximum Day Consumption	(3) Load Factor (1)/(2)
0 to 1,999	40	90	44.44%
2,000 to 3,999	90	190	47.37%
4,000 to 5,999	170	370	45.95%
6,000 to 7,999	210	450	46.67%
8,000 to 9,999	290	470	61.70%
10,000 to 11,999	350	600	58.33%
12,000 & Over	500	820	60.98%
Total	250	500	50.00%

As shown in Column (3) above, Load Factor (i.e., the relationship between residential average and peak consumption) remains relatively constant through the Monthly Consumption Range of 6,000 to 7,999 gallons. A consistent and noticeable improvement in Load Factor is then observed, which suggests that a declining-block rate may be warranted starting at a monthly consumption level of 8,000 gallons.

Q. WHAT IS THE COST JUSTIFICATION FOR A DECLINING-BLOCK RATE IN YOUR HYPOTHETICAL EXAMPLE?

A. The implicit cost justification stems from the fact that intraclass cost incidences per gallon of service decline with improvements in Load Factor. The converse is true if Load Factor worsens with increased consumption.

Continuing with the hypothetical illustration, and abstracting from debates as to how costs should be categorized and calculated, suppose for the presumed residential class that customer costs are $8.00 per month, commodity costs are $0.0015 per gallon, and capacity costs are $0.25 per gallon. Given these premises, the data below show the

comparative combined commodity and capacity unit costs per gallon and per 1,000 gallons for two Monthly Consumption Ranges:

Line	Description	Monthly Consumption Range 0 to 1,999	8,000 to 9,999
(1)	Average Daily Consumption	40	290
(2)	Average Annual Consumption: (1)x365	14,600	105,850
(3)	Commodity Costs Per Gallon	$0.0015	$0.0015
(4)	Total Annual Commodity Costs: (2)x(3)	$21.90	$158.78
(5)	Average Maximum Day Consumption	90	470
(6)	Capacity Costs Per Gallon	$0.25	$0.25
(7)	Total Annual Capacity Costs: (5)x(6)	$22.50	$117.50
(8)	Annual Costs		
	(a) Total: (4)+(7)	$44.40	$276.28
	(b) Per gallon: (a)/(2)	$0.00304	$0.00261
	(c) Per 1,000 gallons: (b)x1,000	$3.04	$2.61

On a per 1,000 gallons basis, the cost variance in serving the above two residential subclasses is $0.43 or a decline of roughly 14%. Such a differential is not immaterial, although other factors may require consideration before ultimately deciding to proceed with a declining-block rate design. Note also that if unit cost findings were reversed, the case for an inverted-block rate structure would prevail.

In any event, no intraclass load and cost studies have been presented by the Company in this case. Thus, and for the efficiency reasons noted previously, I share Commission Staff's view that declining-block rates should be removed from MAWC's pricing.

6.0 MINIMUM BILLS AND CUSTOMER COST DETERMINATIONS

Q. WHY SHOULD THE COMMISSION REJECT THE RESULTS OF CUSTOMER COST CALCULATIONS AS THE SOLE BASIS OF ESTABLISHING MINIMUM BILLS?

A. In the first instance, and under the best of conditions, all customer cost calculations are subject to numerous qualifications. Moreover, even if it were possible to precisely quantify customer costs, competitive market observations tell us that their recovery in the form of fixed charges unrelated to usage is inconsistent with the

realization of efficiencies in production and consumption. This is not to say that minimum bills should be eliminated, for they serve to fulfill the important objective of revenue stability and predictability for regulated utilities. Accordingly, if the results of so-called customer cost calculations are to be the standard for achieving revenue stability and predictability, that is an entirely different matter than claiming that these results constitute customer costs.

Q. PLEASE EXPLAIN YOUR UNDERSTANDING AS TO THE POSITIONS OF MAWC AND COMMISSION STAFF REGARDING CUSTOMER COSTS.

A. While using significantly different amounts, both the Company and Commission Staff propose to set minimum monthly water bills at what they similarly assert and calculate to be monthly customer costs. With respect to 5/8" water service in Joplin, for instance, the data below show the components of their respective calculations:

Cost Components	MAWC a/	Staff b/
Meter-Related	$5.42	$2.83
Services-Related	$3.03	$2.19
Billing & Collecting-Related	$5.04	$3.71
Total	$13.49	$8.73

a/ Mr. Herbert's Schedule F-JOP.
b/ Commission Staff Schedule 3-13-JOP, excluding any provision for a true-up allowance.

As illustrated above, both Commission Staff and MAWC compute monthly residential customer costs as the sum of the total costs of service applicable to investments and functions involving meters, services, and billing & collecting. Any representation, however, that these three categories of costs can be purely or uniquely ascribed as being customer-related instead of usage-related is misleading. Nevertheless, Commission Staff proposes to set monthly minimum bills at the levels resulting from its customer cost calculations, such as at $8.73 for Joplin. Based on the customer cost computations of Mr. Herbert, the Company proposes to set most minimum monthly charges at $13.00 for 5/8" water service, except in its proposed St. Louis Metro Area where the corresponding rate would be $10.00.

Q. WHY DO YOU TAKE EXCEPTION TO THE CUSTOMER COST CALCULATIONS DESCRIBED IN YOUR PREVIOUS ANSWER?

A. Consider, as an example of my concerns, the total costs of service associated with meter investment and functions such as meter reading. These costs arise, in the first instance, because utility regulators have appropriately elected to follow the competitive model in pricing utility services, at least in part, in the interest of balancing the goals of revenue stability and predictability with the goals of production and consumption efficiencies. Had utility regulators chosen to ignore the former objectives, such that all utility services were priced on a consumption basis, meter-related costs would be usage-related by definition, precisely the outcome under competition.

Further with respect to meter investment and functions, no attendant costs can be associated with the fire protection services provided by the Company because decisions have been made to price this service solely on a single-part basis consisting only of a fixed component such that meters are unnecessary. Were this true for all types of water services, meter-related costs would not exist. But given decisions to price on a consumption basis, at least in part, meter-related costs arise and are attributable to usage as in competitive markets.

Q. IN YOUR VIEW, DR. ILEO, WHAT SHOULD BE THE STANDARD IN SETTING MONTHLY MINIMUM CHARGES?

A. In balancing regulatory goals, monthly minimum charges for utility services should be set at levels that are both as low as possible and consistent with achieving reasonable degrees of revenue stability and predictability. To do otherwise, unnecessarily interferes with the realization of supply and demand-side efficiencies, as well as creates affordability problems for households and small businesses with limited resources. I also note that the higher the percentage of total revenues collected from minimum charges and other forms of non-volumetric rates, the lower the business risk confronted by the utility.

Admittedly, and as suggested by my remarks, I am unaware of a specific, universally applicable standard that can be utilized in establishing minimum monthly bills in all instances. Like many such matters, the resolution of the minimum charge

issue requires the exercise of informed judgment tailored to particular factual circumstances.

Q. HAVE YOU PERFORMED ANALYSES TO DETERMINE THE EXTENT OF REVENUES PRESENTLY COLLECTED BY MAWC FROM MINIMUM BILLS?

A. Yes. Based on data contained in the CCOSS of Commission Staff (the Schedules 2 series therein), Schedule MJI-3 to my testimony presents the percentages of revenues currently received by the Company within six of its Water Districts for services other than fire protection -- overall and by Customer Class. The six selected Districts reflect my decision at this time to exclude the two smallest (Brunswick and Warren County), as well as St. Louis County and Warrensburg.

I excluded St. Louis County because a separation among Customer Classes is not possible with available data given the rate structure utilized by MAWC in that District. I also excluded Warrensburg because, upon preparing Schedule MJI-3, I discovered a print-error in my copy of the CCOSS of Commission Staff; i.e., Schedule 2-SWAR contains the same information as in Schedule 2-SSCH for St. Charles. As this testimony is being prepared, I am attempting to resolve the indicated misprint.

Q. PLEASE DESCRIBE THE CONTENTS OF SCHEDULE MJI-3.

A. Under the profoma test year revenue computations of Commission Staff at Company present rates, MAWC currently receives somewhat over 25% of its revenues from minimum bill charges in the aggregate for the six Districts in Schedule MJI-3, excluding consideration of fire protection services. Wide variances are exhibited, however, both among Customer Classes and across Districts. With respect to the latter, minimum charge percentages of total revenues range from about 18% (Parkville) to 32% (Joplin). In each District, residential customers are overwhelmingly responsible for the levels of revenue predictability and stability depicted in Schedule MJI-3 -- most notably in Jefferson City (over 38%) and in Joplin (over 45%). The comparative figures for the Industrial Class, in contrast, are approximately 11% (Jefferson City) and 4% (Joplin).

We also observe that the minimum bill revenue percentages are positively correlated with the levels of the Company's fixed charges for 5/8" water service, both

overall and for the Residential Class. Put alternatively, the higher the monthly minimum bill for this service, the greater the degree of revenue stability and predictability produced as residential customers primarily take 5/8" service.

Q. DO YOU REGARD THE AGGREGATE 25% MINIMUM BILL PERCENTAGE IN SCHEDULE MJI-3 AS TOO HIGH?

A. No. While 25% may lie on the high side in my experience, I do not regard it as an unreasonable standard in achieving the goal of revenue stability and predictability ("RSP" for simplicity). Viewed alternatively, the Company can depend on the fact that one-fourth of its revenues from the six Districts will not be subject to material swings due to market volatilities. However, a significant increase beyond 25% should be avoided unless an offsetting compensation mechanism is adopted, such as a recognition of reduced business risk.

I further note in this regard that some increase is likely under MAWC's revenue and rate design proposals in this case as reflected by the data below:

	(1)	(2)	(3)	(4)
	5/8" Minimum Charge a/			Proposed Revenue
	Present	Proposed	Change	Change b/
Jefferson City	$10.41	$13.00	24.88%	17.03%
Joplin	$11.62	$13.00	11.88%	38.61%
Mexico	$9.42	$13.00	38.00%	11.28%
Parkville	$8.55	$13.00	52.05%	29.99%
St. Charles	$7.70	$10.00	29.87%	44.21%
St. Joseph	$9.14	$13.00	42.23%	8.44%

a/ Schedule ELG-4 to Mr. Grubb's Direct Testimony.
b/ Appendix A in Minimum Filing Requirements attached to Mr. Petry's Direct Testimony.

The comparative figures in Columns (3) and (4) above suggest that minimum bill revenue percentages will decline in Joplin and St. Charles, with concomitant increases in the other four Districts. Given that the combined present total rate revenue in Schedule MJI-3 of $55.363 million is distributed as roughly 40% ($22.594 million) for Joplin and St. Charles, and 60% ($33.269 million) for the other four Districts, a rise (perhaps appreciably) above 25% is highly probable. Moreover, the proposals of MAWC

(especially with respect to the 5/8" service minimum charge) are also likely to exacerbate the disproportionately large contribution to RSP made by residential customers.

Q. HOW MIGHT A MORE BALANCED CONTRIBUTION BE ACHIEVED?

A. Ideally, all customer classes should bear the same percentage of responsibility in terms of their collective monthly bills for achieving RSP; e.g., if 25% is a reasonable standard, then 25% of revenues for each of the residential, commercial, industrial, and other classes of the Company (other than fire protection) should be derived from fixed monthly charges. The same holds for Districts.

Although not in a perfect manner, such outcomes are observed for electric and natural gas utilities where monthly minimum bills or customer charges are differentiated by customer class regardless of service type or size. By hypothetical illustration, the monthly customer charges of an electric utility for secondary voltage service might be $8.00 for residential customers and $16.00 for small commercial customers. Such pricing serves to balance contributions to overall RSP, as well as that the results of customer cost calculations are not the primemovers in establishing appropriate levels of minimum bills.

Under the current pricing system of MAWC, only volumetric rates are differentiated by customer class, such that all customers within each District face the same fixed monthly rates for each service size; e.g., $11.62 presently for 5/8" water service in Joplin regardless of whether taken by a residential, commercial, or industrial customer. A more balanced contribution to RSP is difficult to achieve under these rate structure forms, and surely not in an immediate manner consistent with the goal of rate change gradualism.

With the qualifications noted, a more equitable distribution of the 25% in Schedule MJI-3 would be achieved upon two sets of price movements: (1) decreases in monthly minimum bills for 5/8" and other water service sizes taken by residential customers; and, (2) increases in monthly minimum bills for water service sizes above 5/8", which are primarily utilized by non-residential customers.

Q. PLEASE PROVIDE AN ILLUSTRATION OF THE PRICE MOVEMENTS TO WHICH YOU REFER.

A. Consider again a possible 21% increase in revenues for Joplin under Commission Staff's proposals, which implicitly presumes that the corresponding true-up allowance estimate presently at $4.015 million turns out to be accurate. Further assuming that the distribution of total revenues shown on Commission Staff CCOSS Schedule 2-1-SJOP would remain unchanged upon a 21% aggregate revenue increase, the data below (excluding fire protection) show the resulting customer class revenue requirements and minimum bill contributions to RSP at a 25% standard:

Customer Class	(1) Revenue Requirement a/	(2) 25% Contribution Standard b/
Residential	$7,911,495	$1,977,874
Commercial	$3,598,682	$899,670
Industrial	$2,929,936	$732,484
Other Public Authority	$495,219	$123,805
Other Water Utilities	$471,192	$117,798
Total	$15,406,524	$3,848,631

a/ Commission Staff CCOSS Schedule 2-SJOP, total rate revenues at Present Pro Forma Rates of $13,079,058 x 121% (or $15,825,660) distributed in accordance with amounts for customer Class rate revenues at Proposed Pro Forma Rates totaling $11,855,848.

b/ 25% x Column (1).

In Schedule MJI-4, I present the outcomes of restructuring MAWC's minimum bill charges along with instituting the presumed 21% aggregate increase for Joplin. The illustrative new rates in Schedule MJI-4 should not be regarded as unique in any manner, for they serve simply as one of many possible price movement sets aimed at bringing-about a more equitable distribution of a 25% RSP objective given MAWC's present rate structures. As with the implementation of all rate changes, tests should be performed as to the impacts of the illustrative new rates in Schedule MJI-4 on typical Joplin customers within each class.

With the caveats noted, Schedule MJI-4 shows that the illustrative new minimum bill charges (along with an assumed 21% revenue increase) produce an aggregate

contribution to RSP of about 27% in Joplin – short of the 25% goal, but down from the 32% under present rates as calculated in Schedule MJI-3. A comparison in this regard is presented below by Joplin Customer Class:

	RSP Contribution	
Joplin Customer Class	Present Rates	Illustrative Rates
Residential	45.26%	32.69%
Commercial	25.87%	27.95%
Industrial	4.09%	9.96%
Other Public Authority	20.03%	41.40%
Other Water Utility	7.07%	15.54%
Combined	32.03%	27.02%

As indicated above, the illustrative new minimum bill charges in Schedule MJI-4 achieve many RSP objectives, but not all; e.g., the movement for Other Public Authority suggests that an alternative set of RSP-based rates is desirable. Such an exercise, however, is meaningfully completed only once the new revenue requirements for MAWC's Districts and Customer Classes are known.

Q. WHAT IS MEANT BY YOUR REFERENCE TO THE PERFORMANCE OF TESTS THAT SHOULD BE PERFORMED?

A. Unless no or very small changes in rate structure and revenue distributions are implemented (e.g., a 21% increase for all customer classes and rate elements), studies should be conducted as to typical bill impacts. For example, the following data show the monthly bill changes for three hypothetical Joplin residential customers at the revenue requirements and rates underlying Schedule MJI-4:

Monthly Usage	Present Bill a/	New Bill b/	Bill Change
1,000 Gallons	$14.07	$12.67	-9.95%
10,000 Gallons	$35.51	$45.69	28.67%
100,000 Gallons	$276.74	$375.92	35.84%

a/ Calculated based on Commission Staff CCOSS Schedule 2-2-SJOP as $11.62 + $2.6512 per 1,000 gallons.

b/ Calculated as $9.00 + $3.6692 per 1,000 gallons, where $3.6692 = ($15,406,524-$4,162,332)/1,451,315.

To the extent that the monthly bill impacts shown above are viewed as too abrupt relative to an aggregate overall increase of 21%, this may be an additional reason for finding an alternative set of new minimum charges to those in Schedule MJI-4. Thus, both RSP objectives and rate change gradualism should be considered in the ultimate design of rates.

Q. IF A CUSTOMER COST APPROACH TO RSP OBJECTIVES WERE TO BE ADOPTED, HOW SHOULD THAT BE ACCOMPLISHED?

A. First, and unlike the simplistic and inappropriate customer cost calculations of both the Company and Commission Staff, a true recognition of causation must be incorporated in the separation of costs into customer and usage categories. This recognition requires a consideration of the forces that drive the construction and operation of utility networks, including those of water companies. With respect to the distribution portion of these networks, the primary objective is the cost-effective construction and operation of attendant facilities in a reliable manner that meet customer connectivity and usage requirements, particularly at peak times. All distribution facilities, therefore, have both customer-related and usage-related elements.

The closer are distribution plant and equipment to customer premises, the greater are the probable portions of corresponding costs that can be categorized as customer-related. The converse is also true. Put alternatively, customer usage at peak times is likely to play a greater role in the design of distribution mains than customer connectivity considerations, whereas the converse is probable with respect to the installation of services. But both considerations play a role in installing both types of distribution facilities.

On the other hand, the design, construction, and operation of transmission mains are unlikely to be influenced to any degree by customer connectively requirements, except perhaps for instances when very large customers (e.g., a major manufacturing plant) may be served directly by these facilities. Nevertheless, the peak usage of such a plant along with peak usages on the distribution facilities served by transmission mains will be the sole primemover; i.e., no portion of transmission facilities are likely to be reasonably categorized as customer-related.

Q. REGARDING DISTRIBUTION FACILITIES, WHAT PROCEDURES ARE AVAILABLE TO SEPARATE ATTENDANT COSTS, INTO CUSTOMER-RELATED AND USAGE-RELATED CATEGORIES?

A. Highly sophisticated engineering/economic models exist that find the optimal configurations and types of distribution facilities that meet reliability and cost-effectiveness objectives given the number, locations, and usage characteristics of the customers to be served. By varying these input parameters, sensitivities in terms of incremental costs can be determined, which provide meaningful indications as to the respective roles of customer connectivity and peak usage in the design of distribution networks.

Another procedure, developed well-before the advent of the modern computers needed for the engineering/economic models noted above, is the minimum or zero-intercept methodology. This procedure is of a statistical nature, relying on linear and non-linear regression techniques applied to USOA amounts that are cast in current rather than original cost dollar terms.

By hypothetical illustration, suppose the following data pertains to a particular USOA plant account:

Size Of Facility (X)	Current Installation Costs Per Foot (Y)
1"	$20
2"	$30
4"	$80
6"	$160
8"	$250

Upon applying the regression form of $Y = a+bX^i$ to the above data, the results upon setting i equal to 2 are $Y = \$18.59 + \$3.6948X^2$ with an adjusted R^2 of 99.69% and t-values of 4.61 (Intercept) and 30.83 (Slope) indicating outcomes that are highly significant in statistical terms. Accordingly, the intercept value at $18.59 per foot for current cost installations can be regarded as a reasonable measure of the customer-related portion of the USOA in question; i.e., costs that are not a function of the size of facilities. If total current costs for this USOA were $80 million accompanied by a total of

1,000,000 feet, the customer-related portion would be 23.24%; i.e., ($18.59 x 1,000,000)/$80 million.

Q. WHAT ARE THE IMPLICATIONS OF THE MODELING AND STATISTICAL PROCEDURES THAT YOU CITE?

A. If a cost-causation standard is to be applied in setting minimum bill levels that achieve RSP objectives, then cost-causation measures should be appropriately developed using proven tools available to cost analysts. The customer cost calculations of MAWC and Commission Staff fall far short of this requirement. These matters can be avoided, however, by proceeding directly to RSP objectives without regard to customer cost calculations that are not truly reflective of cost-causation.

7.0 MAWC AND COMMISSION STAFF COST ALLOCATIONS

Q. WHY DO YOU RECOMMEND THAT THE COMMISSION SHOULD GIVE LITTLE WEIGHT TO THE COST ALLOCATION STUDY RESULTS OF THE COMPANY?

A. Analyses of the cost allocation methodologies employed by MAWC reveal numerous internal inconsistencies; i.e., vastly different procedures for assigning costs to Districts and for assigning costs to Customer Classes within Districts, as well as the selection of Allocation Factors that are highly questionable if not wholely unreasonable. Similar to the customer costs issue, appropriate and consistent cost-causation standards should lie at the heart of a cost allocation methodology, which surely is not the case with the procedures of the Company.

Q. TO WHAT ANALYSES DO YOU REFER, DR. ILEO?

A. Consider the contents of Schedule MJI-5 to my testimony, which presents a comparison between the procedures that Mr. Grubb reports have been utilized by MAWC to assign various costs to its Districts and those applied by Mr. Herbert in his CCOSS to assign the same costs to Customer Classes within each of the Company's Districts. Footnotes to Schedule MJI-5 identify the sources of information therein, as well as

attendant qualifications where necessary for the reasons indicated. Of additional note is that, while Schedule MJI-5 focuses on 12 comparisons of varying dollar magnitudes, numerous others could be cited. Schedule MJI-5 is further structured in terms of USOA Nos. for ease of reference, although this convention should not be interpreted as representative of MAWC's filings in this case.

The first comparison in Schedule MJI-5 pertains to Uncollectible Accounts (No. 904), where the amounts therein are allocated to Districts by the Company based on Revenues. In contrast, Mr. Herbert allocates these uncollectible amounts to District Customer Classes utilizing Customer counts in his CCOSS. If the appropriate Allocation Factor for Uncollectibles is truly Revenues, such a procedure should hold for both purposes; i.e., to Districts and to Customer Classes within Districts. The same would be true if Customer counts were the proper Allocation Factor.

The fact is, however, that neither of these Factors is the most appropriate in the first instance, for the Company should be able to directly assign applicable Uncollectibles to Customer Classes within each District. A direct attribution should be a comparatively simple task, at least for the computerized billing and collection systems that I have encountered during my professional career. Direct assignments of costs always should be made whenever possible.

Q. PLEASE COMMENT ON THE OTHER USOA IN SCHEDULE MJI-5.

A. In each of the remaining comparisons in Schedule MJI-5, a different MAWC Allocation Factor is observed for Districts and for Customer Classes within Districts regardless of USOA Accounts with comparatively small or large magnitudes. Customers is surely the Company's preferred Allocation Factor in distributing costs to Districts, despite the alleged reconsideration of this issue discussed in the Direct Testimony of Mr. Grubb. Except for a limited number of instances, the number of Customers cannot be considered as the principal cost-causer, at least not taken alone. For instance, considerable difficulty is encountered in accepting the proposition that the number or Customers is primarily responsible for the incidence of Software Licenses & Support costs (No. 930.2). Much the same holds true for other USOA where Customer counts are employed in allocating costs to Districts; e.g., Supervision & Engineering Labor Costs

for Water Treatment Operations (No. 640). Everything considered, and while I may or may not agree with his selections, the Allocation Factors employed by Mr. Herbert for assigning costs to Customer Classes appear to be far more credible than those in Mr. Grubb's Schedule EJG-3 for assigning costs to Districts.

Q. WHAT DO YOU MEAN BY A POSSIBLE AGREEMENT OR DISAGREEMENT WITH MR. HERBERT?

A. I have not examined each of the many USOA Accounts and Sub-Accounts, so my remarks will be limited to those portrayed in Schedule MJI-5 with qualification as warranted.

With respect to Management Fees Bellville Lab (No. 923), Mr. Herbert's use of Average Daily Consumption as the Allocator does not appear unreasonable presuming that the primary function of this Lab is water testing. On the other hand, the use of Certain O&M Expenses by Mr. Herbert for Utility Regulatory Assessment Fees (No. 408.1) is questionable because these Fees, in my experience, tend to be imposed based on Revenues, which the Company utilizes in assigning these Fees to Districts.

As for Workers Compensation Insurance (No. 924), the use of Direct Labor costs as an Allocator in assigning premiums to Customer Classes is clearly preferable to the number of employees applied in distributing these insurance costs to Districts. I say this because, having represented many state insurance departments, I am aware that workers compensation insurance rates are typically set on the basis of per $100 in payroll by specific employee classification; e.g., much lower rates per $100 in payroll for office workers as compared to construction workers.

Q. WHY DO YOU SAY THAT THE COMPANY SHOULD BE READILY ABLE TO DIRECTLY ASSIGN UNCOLLECTIBLES?

A. I base my comments with respect to Uncollectibles not only on serving as a regulatory consultant for nearly 40 years, but further as a result of "hands-on" experience. For example, I noted in my Direct Testimony (Page 3) that TAI has assisted Bristol Virginia Utilities ("BVU") with various CAM matters. One of these involves assistance

in preparing annual filings of BVU with the Virginia State Corporation Commission that show BVU operating results by line of business.

In the preparation of these annual submissions, an identification of Uncollectibles by line of business and attendant customer classes is required in order to project potential future outcomes. Although a specialized computer run is necessary in this regard, BVU personnel are able to provide TAI with the requisite identification in a matter of hours. BVU is considerably smaller than American Water, as well as presumably far less sophisticated in terms of computer equipment, billing systems, and technical personnel. Accordingly, I see no reason why MAWC should be unable to complete a task that BVU accomplishes in a few hours.

Q. TO WHAT EXTENT ARE DIFFERENCES EXHIBITED IN THE ALLOCATION FACTORS APPLIED BY COMMISSION STAFF IN THIS PROCEEDING?

A. While my studies of allocation factor selections and applications remain incomplete at this juncture, consideration of Commission Staff's allocation treatments of the same USOA in Schedule MJI-5 leads me to conclude (at least tentatively) that far greater consistency is observed in assigning costs to Districts and to Customer Classes within Districts. This is not to say, however, that no questions are raised as to the appropriateness of the allocation factors utilized by Commission Staff.

Schedule MJI-6 to my testimony presents a comparison of the Allocation Factors applied by Commission Staff in attributing costs to the Company's Districts and to Customer Classes within these Districts for the same USOA in Schedule MJI-5. The information in Schedule MJI-6 has been compiled from the two Commission Staff sources cited therein. At the outset in this regard, and as reflected by the discussion earlier in Part 6.0, I note my agreement with the allocation concepts espoused at Page 27 of Commission Staff's August 18, 2008 Cost of Service Report, particularly the statement that "allocated corporate costs should be based upon different allocation factors depending on the causes that required the costs to be incurred."

Regarding Uncollectible Accounts (904) in Schedule MJI-6, my comments about MAWC's treatment are equally applicable; i.e., no allocation should be necessary, as a direct assignment is preferable and should be readily available. Aside from this matter, a

comparatively minor inconsistency is posed by Commission Staff's use of Bill counts in assigning costs to Districts as contrasted with the use of Customer counts in assigning costs to Customer Classes within Districts. This would not be true if all of the Company's customers were billed on a monthly basis.

The second USOA (403) in Schedule MJI-6 is Depreciation Expense-General, for which I presently find no USOA listing in Commission Staff's Appendix 3. This absence may simply reflect an oversight, but some listing for USOA 403 is presumably necessary as the Company allocates corresponding corporate costs based on Customers as reported in Schedule MJI-5.

For the remaining USOA in Schedule MJI-6, Commission Staff has employed a different Allocation Factor for the two indicated purposes, although the full extent of the difference for some USOA remains to be analyzed. With respect to USOA Nos. where Composite Payroll (To Districts) and Direct Labor (To Classes) are employed by Commission Staff, the difference may be slight as aggregate payroll and direct labor costs and likely to be highly correlated. At the present stage of analysis, I cannot say that the same holds for USOA Nos. 930.2, 924 (General Liability Insurance), 408.1, 928, 923, and 640.

Considering USOA 923 (Bellville Lab costs), for instance, the number of Water Tests by District would appear to be a most appropriate corporate Allocation Factor. At the same time, questions are posed regarding the reasonableness of assigning Bellville Lab costs to Customer Classes within Districts based on a Weighting of Average & Maximum Day Consumption; i.e., Factor 2. Put alternatively, unless the characteristics of this latter Allocation Factor cause the number of required Water Tests, issues as to appropriateness arise. Much the same is true for USOA 640 in Schedule MJI-6.

Q. HOW DO YOU VIEW COMMISSION STAFF'S TREATMENTS OF USOA 660 IN SCHEDULE MJI-6?

A. The treatments of USOA 660 by Commission Staff are indicative of how it has generally allocated all costs associated with transmission & distribution mains. As with other allocation methods employed by Commission Staff, I am reserving a final opinion regarding the question posed largely because additional data and studies are needed. But

at the same time, Commission Staff's allocations of transmission & distribution mains costs appear far superior to those of the Company, especially with respect to corporate cost allocations and given MAWC's failure to functionalize transmission & distribution mains.

Q. PLEASE EXPLAIN YOUR PREVIOUS ANSWER.

A. Commission Staff's treatments of USOA 660 raise several matters similar to those outlined in my previous answers for other USOA, which is of particular significance as these issues now apply generally to the allocation of all costs associated with transmission & distribution mains. Appendix 3 to Commission Staff's August 18, 2008 Cost of Service Report, for instance, cites several transmission & distribution expense accounts (e.g., Nos. 662, 665.1, 673, and 676-Meters) for which Feet of Mains has been applied to allocate corresponding corporate costs to Districts. Whether this listing of USOA 676-Meters is a misprint remains to be seen, for unlike costs specifically attributable to transmission & distribution mains, it is difficult to conceive how meter-related corporate costs might be a function of Feet of Mains.

As suggested by these latter remarks, and other than for USOA No. 676, Feet of Mains (taken without regard to customer class allocations) appears to be a reasonable method for allocating corporate costs involving transmission & distribution mains to Districts – especially in comparison to MAWC's use of Customer counts and given the Company's failure to functionalized transmission & distribution mains. Pages 6 and 7 of Commission Staff's September 3, 3008 CCOSS Report suggests in this regard that, because MAWC has not performed functionalization studies, "Staff assigned the total footage of mains to the maximum hour consumption in Factor 7," regardless of the Company's designations of transmission or distribution. My support of Commission Staff's approaches at this stage of the proceeding, however, is subject to qualification.

By illustration, questions arise as to why weighted footage using sizes of mains was not employed by Commission Staff. Presumably, the logic of its approach is that corporate costs associated with distribution mains plant are a direct function of the length of mains. While I tend to agree with this reasoning as a first approximation, my view

also is that weighted mains footage or some size differentiation may better explain cost incidences.

I additionally note that these alternative propositions could be tested through regression analyses applied to MAWC's Districts. Such studies might take the form of C=a+bWAS, where C is transmission & distribution expenses per foot of mains directly incurred at the District level by the Company and WAS is the weighted average size of mains in the District. Should the results of regression analysis establish that the coefficient (b) of WAS cannot be regarded as statistically significant, the merits of Commission Staff's approach will have been confirmed. The converse will hold if b is found to be statistically significant, including the fact that this coefficient of WAS could take-on a positive or negative value.

Q. DO OTHER QUALIFICATIONS PREVAIL IN YOUR PRESENT SUPPORT OF COMMISSION STAFF'S COST ALLOCATIONS?

A. Yes, as I have yet to fully analyze the relationship between Commission Staff's "To Districts" and "To Classes" cost allocation treatments. Again with respect to USOA 660 in Schedule MJI-6, for example, the Transmission & Distribution O&M Expenses allocator applied by Commission Staff in assigning costs to customer classes are largely the result of Factor 7 in its CCOSS Report; i.e., Maximum Hourly Consumption as reported in Schedule 3-28-SJOP. Other than for meter and services-related costs, Factor 7 is the primary transmission & distribution mains cost allocator employed by Commission Staff as shown on Schedule 3-2-SJOP, at least in dollar terms. But if Maximum Hourly Consumption is an appropriate allocator for customer class attributions, how can the same be said for District attributions based on a Feet of Mains allocator?

The answer may lie in the fact that two entirely different matters are truly posed: (1) the spreading of transmission & distribution costs incurred at the corporate level to Districts on a non-time-of-use basis because these costs are purely of a support nature and not caused by peak consumption; and, (2) the spreading of transmission & distribution costs (including both direct and those emanating from the corporate level) to Customer Classes based on peak usage in order to recognize that the design, construction, and

operation of transmission & distribution mains are primarily driven by peak use considerations. For the reasons previously noted, I am reserving a final opinion with respect to such matters.

Q. PLEASE SUMMARIZE YOUR OBSERVATIONS AS TO THE CONTENTS OF SCHEDULES MJI-5 AND 6.

A. At this stage of analysis, and while certain reservations remain, Commission Staff's allocation treatments exhibit far greater internal consistency than those of the Company. Further, and unlike what is frequently exhibited in MAWC's allocation treatments, Commission Staff appears to have made an effort to truly incorporate cost-causation into its allocation procedures. The notable exception, however, rests with its calculation of customer costs, which is equally applicable to the Company as explained earlier in Part 6.0.

Q. TO WHAT RESERVATIONS DO YOU REFER?

A. For reasons previously outlined in my testimony, available time has been insufficient at this rebuttal stage to fully evaluate all of the cost allocation and rate design proposals of Commission Staff. As this rebuttal testimony is being prepared, moreover, I am both awaiting responses to data requests of Commission Staff and have yet to fully study responses thus far received. I have also yet to resolve the misprints in my copies of Commission Staff's filings. Thus, the reservations to which I refer stem from the indicated additional information and analyses needed to adequately probe what appears as a generally superior set of cost allocation methodologies to those of the Company.

Q. HAVE YOU COMPLETED YOUR REBUTTAL TESTIMONY, DR. ILEO?

A. Yes. However, and with the Commission's permission, I am reserving the right to comment further on the matters discussed in my Direct and Rebuttal Testimony during the true-up phase of this proceeding.

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 MICHAEL J. ILEO

Michael J. Ileo, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony and Schedules of Michael J. Ileo"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquiries 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.

Michael J. Ileo

State of Virginia
City of Richmond
SUBSCRIBED and sworn to
Before me this 30th **day of** September **2008.**

Notary Public

My commission expires: 3/31/10
Registration No.: 270986

Schedule MJI-2

JOPLIN RESIDENTIAL COMMODITY RATE PER 1,000 GALLONS WITH +25% TRUE-UP ESTIMATION ERROR AND OTHER PREMISES *

Line	Description	Amount
(1)	Total Revenue Requirement With No True-Up	$12,096,929
(2)	True-Up Amount At A +25% Estimation Error: 1.25 x $4,014,992	$5,018,740
(3)	Total Revenue Requirement With True-Up: (1) + (2)	$17,115,669
(4)	Residential Revenue Requirement	
	(a) Current Percent: $5,927,306/$12,096,929	48.9984%
	(b) Amount With True-Up: (3) x (4a)	$8,386,410
(5)	Residential Customer Cost Revenue	$2,225,857
(6)	Residential Commodity Cost Revenue: (4b) - (5)	$6,160,553
(7)	Residential Commodity Billing Units In 1,000 Gallons	1,451,315
(8)	Residential Commodity Rate Per 1,000 Gallons: (6)/(7)	$4.2448

* Amounts not calculated are taken from Commission Staff CCOSS Schedule 1-1 and 2-SJOP.

Schedule MJI-3

CURRENT CONTRIBUTIONS TO MAWC REVENUE STABILITY AND PREDICTABILITY

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Present Water Districts & 5/8" Service Minimum Bills						
Present Cusomter Class Revenues	Jefferson City $10.41	Joplin $11.62	Mexico $9.42	Parkville $8.55	St. Charles $7.70	St. Joseph $9.14	Total
Residential							
Minimum Bills	$1,120,192	$3,148,283	$484,790	$544,701	$2,735,589	$3,245,522	$11,279,077
Total Bills	$2,919,103	$6,956,498	$1,620,561	$2,766,088	$8,494,326	$10,812,391	$33,568,967
Percent Minimum	38.37%	45.26%	29.91%	19.69%	32.20%	30.02%	33.60%
Commercial							
Minimum Bills	$230,233	$724,415	$85,438	$121,487	$287,026	$563,113	$2,011,712
Total Bills	$1,591,086	$2,800,242	$476,504	$758,762	$1,110,547	$4,112,143	$10,849,284
Percent Minimum	14.47%	25.87%	17.93%	16.01%	25.85%	13.69%	18.54%
Industiral							
Minimum Bills	$28,740	$90,578	$23,872	$2,508	$440	$84,590	$230,728
Total Bills	$263,551	$2,214,155	$577,212	$21,985	$2,015	$3,211,449	$6,290,367
Percent Minimum	10.90%	4.09%	4.14%	11.41%	21.84%	2.63%	3.67%
Other Public Authority							
Minimum Bills	$66,414	$93,192	$34,129	$12,928	$91,548	$93,565	$391,776
Total Bills	$427,608	$465,234	$310,116	$46,660	$259,173	$754,661	$2,263,452
Percent Minimum	15.53%	20.03%	11.01%	27.71%	35.32%	12.40%	17.31%
Other Water Utilities							
Minimum Bills	$0	$20,629	$6,194	$4,041	$0	$22,324	$53,188
Total Bills	$0	$291,983	$371,404	$181,325	$0	$2,046,566	$2,891,278
Percent Minimum	--	7.07%	1.67%	2.23%	--	1.09%	1.84%
Combined							
Minimum Bills	$1,445,579	$4,077,097	$634,423	$685,665	$3,114,603	$4,009,114	$13,966,481
Total Bills	$5,201,348	$12,728,112	$3,355,797	$3,774,820	$9,866,061	$20,937,210	$55,863,348
Percent Minimum	27.79%	32.03%	18.91%	18.16%	31.57%	19.15%	25.00%

Source: Commission Staff CCOSS Schedules 2.

Scheudle MJI-4

JOPLIN CUSTOMER CLASS CONTRIBUTIONS TO REVENUE
STABILITY AND PREDICTABILITY AT ILLUSTRATIVE NEW SERVICE SIZE RATES

Customer Class	Service Size: / Present Rate: / New Rate:	(1) 5/8" $11.62 $9.00	(2) 3/4" $14.87 $14.00	(3) 1" $21.08 $21.00	(4) 1 1/2" $36.68 $60.00	(5) 2" $55.34 $90.00	(6) 4" $161.12 $750.00	(7) 6" $316.72 $1,250.00	(8) 8" $503.40 $1,750.00	(9) Total New Revenues Mimimum Bills	(10) Total New Revenues Total Bills	(11) Percent Minimum
Residential												
	Billing Units	219,240	0	27,384	24	408	0	0	0	--	--	--
	New Revenues	$1,973,160	$0	$575,064	$1,440	$36,720	$0	$0	$0	$2,586,384	$7,911,495	32.69%
Commercial												
	Billing Units	22,980	96	6,984	156	4,464	192	60	12	--	--	--
	New Revenues	$206,820	$1,344	$146,664	$9,360	$401,760	$144,000	$75,000	$21,000	$1,005,948	$3,598,682	27.95%
Industrial												
	Billing Units	396	84	204	0	408	180	72	12	--	--	--
	New Revenues	$3,564	$1,176	$4,284	$0	$36,720	$135,000	$90,000	$21,000	$291,744	$2,929,936	9.96%
Other Public Authority												
	Billing Units	660	0	612	24	720	48	0	48	--	--	--
	New Revenues	$5,940	$0	$12,852	$1,440	$64,800	$36,000	$0	$84,000	$205,032	$495,219	41.40%
Other Water Utilities												
	Billing Units	0	0	24	12	0	0	24	24	--	--	--
	New Revenues	$0	$0	$504	$720	$0	$0	$30,000	$42,000	$73,224	$471,192	15.54%
Total New Revenues		$2,189,484	$2,520	$739,368	$12,960	$540,000	$315,000	$195,000	$168,000	$4,162,332	$15,406,524	27.02%

Sources: Billing Units and Present Rates per Commission Staff Schedule 2-2 through 2-5 JOP. New Rates and Total Bills per text.

Schedule MJI-5

EXAMPLES OF DIFFERENCES IN ALLOCATION FACTORS UTILIZED BY MAWC TO ASSIGN COSTS TO DISTRICTS AND TO CUSTOMER CLASSES WITHIN DISTRICTS

USOA No.	Description	(1) Amount For All Districts 1/	(2) MAWC Allocator To Districts 1/		(3) MAWC Allocator To Classes 2/	
904	Uncollectible Accounts	$1,386,957	Revenues		Customers	
403	Depreciation Expense-General	$1,251,323	Customers		Certain O&M	3/
930.2	Software Licenses & Support	$280,178	Customers		Certain O&M	3/, 4/
925	Injuries & Damages	$7,857	Total O&M	5/	Direct Labor	
924	Workers Compensation Insurance	$1,838,543	Employees		Direct Labor	
924	General Liability Insurance	$3,284,780	Customers		Certain O&M	3/
408.1	Utility Regulatory Assessment Fees	$1,063,339	Revenues		Certain O&M	6/
928	Reg. Comm. Amort. Rate Case	$79,820	Customers	8/	Certain O&M	3/
926	Employee Pensions & Benefits	$5,205,175	Employees & Total Payroll	7/	Direct Labor	
923	Management Fees, Bellville Lab	Not Shown	Customers		Average Daily Consumption	
640	Water Treatment Opers. Sup. & Eng. - Labor	$241	Customers		Average Daily Consumption Weighting	
660	Trans. & Dist. Opers. Sup. & Eng. - Labor	$1,386	Customers		Certain O&M	9/

1/ Per Mr. Grubb's Schedule EJG-3.
2/ Per Mr. Herbert's CCOSS, specifically Schedules A through F-JOP.
3/ Listed O&M Expenses excluding purchased water, power, and chemicals and waste disposal.
4/ Account not separately identified by USOA No. or description, presumed to be allocated in the same manner as many other A&G Accounts; i.e., see 3/
5/ Specific application not explained by Mr. Grubb, but presumably before this and other Accounts where Total O&M is designated as the Allocator.
6/ Listed Total Costs of Service (COS) other than Regulatory Commission Expenses, Assessments and Other Water Revenues.
7/ Employees for PBOP Oper AG ($1,473,405) and Total Payroll for Pension Oper AG ($3,731,770).
8/ Not separately identified, but the Customers Allocator is shown for all Management Fee USOA Nos.
9/ Listed Transmission & Distribution Operating Expenses.

ALLOCATION FACTORS UTILIZED BY COMMISSION STAFF TO ASSIGN COSTS TO DISTRICTS AND TO CUSTOMER CLASSES WITHIN DISTRICTS

USOA No.	Description	(1) Commission Staff Allocator To Districts 1/		(2) Commission Staff Allocator To Classes 2/	
904	Uncollectible Accounts	Bills		Customers	
403	Depreciation Expense-General	NR	3/	Certain O&M	4/
930.2	Software Licenses & Support	Composite Payroll		Certain O&M	5/
925	Injuries & Damages	Composite Payroll		Direct Labor	
924	Workers Compensation Insurance	Composite Payroll		Direct Labor	
924	General Liability Insurance	Composite Payroll		Certain O&M	6/
408.1	Utility Regulatory Assessment Fees	Revenues		Cost of Service	
928	Reg. Comm. Amort. Rate Case	Composite Payroll		Certain O&M	6/
926	Employee Pensions & Benefits	Composite Payroll		Direct Labor	
923	Management Fees, Bellville Lab	Water Tests		Weighting of Average & Maximum Day Consumption	
640	Water Treatment Opers. Sup. & Eng. - Labor	Chemical Expense		Weighting of Average & Maximum Day Consumption	
660	Trans. & Dist. Opers. Sup. & Eng. - Labor	Feet of Mains		Transportation & Distribution O&M Expenses	

1/ Per Appendix 3 to Commission Staff Cost of Service Report.
2/ Per Commission Staff CCOSS Schedule 3-SJOP.
3/ NR means not reported in Appendix 3.
4/ Expense not specifically listed, but Allocation Factor 15 is cited for depreciation expenses applicable to all general plant items. Allocation Factor 15 is defined as O&M Expenses excluding purchased water, power, chemicals and waste disposal.
5/ Expense not specifically listed, but Allocation Factor 15 (as in 4/) is cited for miscellaneous general expenses.
6/ Allocation Factor 15, as defined in 4/.