

Exhibit No.:  
Issues: Cost of Service and Rate Design  
Witness: Ernest Harwig  
Type of Exhibit: Rebuttal Testimony and Schedule  
Sponsoring Party: Multiple Intervenors  
Company: Missouri-American Water Company  
Case Nos.: WR-2000-281/SR-2000-282  
(Consolidated)

**Before the**  
**Missouri Public Service Commission**

In the matter of Missouri-American Water )  
Company's Tariff Sheets Designed to Implement )  
General Rate Increases for Water and Sewer )  
Service Provided to Customers in the Missouri )  
Service Area of the Company )

Case Nos. WR-2000-281/SR-2000-282  
(Consolidated)

**FILED**

Rebuttal Testimony and Schedule of

**MAY 4 2000**

**Ernest Harwig**

**Missouri Public  
Service Commission**

On behalf of

**City of Warrensburg, Missouri**  
**City of Joplin, Missouri**  
**City of St. Peters, Missouri**  
**City of O'Fallon, Missouri**  
**City of Weldon Spring, Missouri**  
**St. Charles County, Missouri**  
**Central Missouri State University**  
**Hawker Energy Products, Inc.**  
**Harmon Industries, Inc.**  
**Stahl Specialty Company**  
**Swisher Mower and Machine Company**  
**Missouri Industrial Energy Consumers**  
**and**  
**St. Joseph Industrial Water Users**

Project 7265/7313  
May 2000

**BAI**  
BRUBAKER & ASSOCIATES, INC.

**Before the**  
**Missouri Public Service Commission**

In the matter of Missouri-American Water ) Company's Tariff Sheets Designed to Implement ) General Rate Increases for Water and Sewer ) Service Provided to Customers in the Missouri ) Service Area of the Company )	Case Nos.: WR-2000-281/SR-2000-282 (Consolidated)
---	--

**Affidavit of Ernest Harwig**


**State of Missouri     )**  
**)**     **SS**  
**County of St. Louis )**

Ernest Harwig, being first duly sworn on his oath, states:

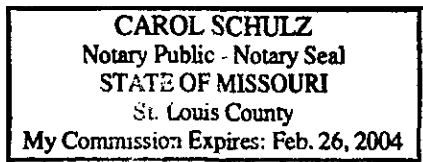
1. My name is Ernest Harwig. My business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. I am a consultant in the field of public utility regulation with the firm of Brubaker & Associates, Inc.


2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony and Schedules which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

  
Ernest Harwig

Subscribed and sworn to before me this 4<sup>th</sup> day of May 2000.



  
Carol Schulz

My Commission expires on February 26, 2004.

**Before the  
Missouri Public Service Commission**

In the matter of Missouri-American Water	)	
Company's Tariff Sheets Designed to Implement	)	Case Nos.: WR-2000-281/SR-2000-282
General Rate Increases for Water and Sewer	)	(Consolidated)
Service Provided to Customers in the Missouri	)	
Service Area of the Company	)	

**Rebuttal Testimony of Ernest Harwig**

1    **Q     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2    **A     Ernest Harwig; 1215 Fern Ridge Parkway, Suite 208; St. Louis, MO 63141.**

3    **Q     HAVE YOU PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THIS**  
4    **PROCEEDING?**

5    **A     Yes, I have. My qualifications are appended thereto.**

6    **Q     WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?**

7    **A     I will comment on the cost of service studies and the rate design proposal presented by**  
8    **Mr. Wendell R. Hubbs on behalf of the Staff of the Missouri Public Service Commission.**  
9    **I will also comment on the cost of service methodology utilized by Ms. Hong Hu in the**  
10   **cost of service studies submitted on behalf of the Office of Public Counsel (OPC).**  
11   **Further, I will comment on the rate design proposals presented by OPC witness James**  
12   **A. Busch. Finally, I will respond to comments made by Dr. Janice A. Beecher presented**  
13   **on behalf of Public Water Supply Districts and the City of St. Joseph, Missouri.**

**Ernest Harwig  
Page 1**

1 My decision not to address other portions of the testimony and exhibits filed by  
2 these parties should not be construed as an endorsement of their positions on these or  
3 other issues before the Commission in this case.

4 **Q PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

- 5 A 1. It is appropriate to prepare district-specific cost of service studies as a guide to  
6 rate design for MAWC. The district-specific studies filed by the Commission Staff  
7 and the OPC, however, cannot be used for this purpose unless flaws in their  
8 methodology are corrected.
- 9 2. Staff's cost of service studies, particularly the one for the St. Joseph District, do  
10 not properly recognize the minimal usage of the distribution system by large  
11 users and, thus, overallocate costs to industrial and resale customer classes.
- 12 3. OPC's cost of service studies incorporate the use of an inappropriate "economies  
13 of scale" factor on a piecemeal and arbitrary basis into the Base-Extra Capacity  
14 method. This has the effect of grossly understating the level of costs made  
15 necessary by the need to meet peak loads. It results in a virtual volumetric  
16 allocation of costs, which is contrary to the very intent of the Base-Extra Capacity  
17 method, and therefore improper. It also overallocates costs to large volume, high  
18 load factor customers.
- 19 4. It is appropriate to move toward district-specific rates in this proceeding, as  
20 recommended by OPC. However, OPC's proposal to increase rates in the Joplin  
21 district only exacerbates the overcollection of costs from it. The Joplin district  
22 should receive a rate decrease, or at the very least, no increase in this  
23 proceeding.
- 24 5. As a public policy matter, Single Tariff Pricing (STP) violates the regulatory model  
25 by allowing MAWC to utilize its monopoly position to earn unreasonable levels of  
26 return from some ratepayers. STP also fails to meet the public policy criterion of  
27 making more people better off as a result of its application. In fact, it makes more  
28 people worse off.

**Testimony of Mr. Wendell R. Hubbs**

**Q HAVE YOU REVIEWED THE COST OF SERVICE STUDIES PREPARED BY STAFF WITNESS HUBBS FOR THE SEVEN OPERATING DISTRICTS OF MISSOURI-AMERICAN WATER COMPANY (MAWC)?**

**A** Yes, I have. Mr. Hubbs has utilized the "Base-Extra Capacity" cost allocation method to assign operating and capital costs to the various customer classes served in each of MAWC's operating districts. Mr. Hubbs provides a general description of this method on pages 3 and 4 of his direct testimony.

**Q PLEASE BRIEFLY EXPLAIN BASE-EXTRA CAPACITY.**

**A** The Base-Extra Capacity method is the most widely accepted costing methodology in the water industry. It is used almost universally in water rate proceedings and in cost of service studies. It was designed to recognize that a large proportion of a water utility's non-customer costs are driven by the need to meet the peak loads imposed by its customers. (Water Rates Manual M-1, American Water Works Association)

**Q DO YOU AGREE WITH MR. HUBBS' ATTEMPT TO ALLOCATE COSTS ON A DISTRICT-SPECIFIC BASIS?**

**A** In general, yes. In fact, prior to the merger of MAWC with Missouri Cities, district-specific cost of service studies were routinely submitted in MAWC rate cases. Mr. Hubbs' studies are simply a revival of that procedure.

More to the point, district-specific cost of service studies provide the opportunity to utilize system and class load factors that are unique and specific to each district. Thus, the costs of providing service within the district are allocated more precisely and more accurately to each of the customer classes taking service in that district. To put it

1 another way, the cost allocations are not tainted by averaging the district-specific load  
2 factors with load factors from MAWC's other operating districts. However, I do take  
3 issue with two aspects of Mr. Hubbs' study.

4 **Q HAS MR. HUBBS UTILIZED CLASS ALLOCATION FACTORS SPECIFIC TO EACH**  
5 **DISTRICT IN HIS COST OF SERVICE STUDIES?**

6 A Unfortunately, he has not. He has utilized the identical peak day and peak load factors  
7 for the various customer classes in each of his district specific studies.

8 **Q WHAT IS THE RESULT OF USING IDENTICAL CLASS PEAK DAY AND PEAK LOAD**  
9 **FACTORS IN HIS STUDIES?**

10 A The class costs derived by Mr. Hubbs' studies may not be a reliable guide to determining  
11 an appropriate rate change for each class within a given district.

12 **Q WHY SHOULD THIS BE DONE ON A DISTRICT-SPECIFIC BASIS?**

13 A The patterns of usage by each class vary from one district to another in terms of  
14 imposing peaks on the local water system. Therefore, costs may be either overallocated  
15 or underallocated to the various classes in any one district by the use of identical  
16 peaking factors.

**Q IN HIS SUPPLEMENTAL DIRECT TESTIMONY, MR. HUBBS PRESENTS A WATER RATE DESIGN WITH SPECIFIC COMMODITY BLOCK CHARGES FOR INDIVIDUAL CUSTOMER CLASSES. DO YOU AGREE WITH THIS ASPECT OF HIS RATE STUDY?**

**A** Yes, I do. By recovering the allocated cost of service from properly group customer classes through class specific block rate charges, the possibility of creating inter-class subsidies within a district is minimized. Short of individual rates for each customer, class-specific rates are the best way to reflect cost-causation and to ensure that revenues from each class will approximate their cost of service. In fact, class-specific rates are routinely utilized by electric and gas utilities.

**Q ARE YOU IN FULL AGREEMENT WITH ALL ASPECTS OF MR. HUBBS' COST ALLOCATION METHODS?**

**A** No. Mr. Hubbs' study is faulty because he also failed to recognize differences in main size.

**Q HAVE YOU PREPARED A COST OF SERVICE STUDY THAT CORRECTS MR. HUBBS' FAILURE TO RECOGNIZE DIFFERENCES IN MAIN SIZE?**

**A** Yes, I have. But, due to time and budget constraints, I modified Mr. Hubbs' cost of service study only for the St. Joseph District. My study utilizes the revenue requirement, usage volumes, customer counts, and load ratios which are in most cases identical to those used by Mr. Hubbs in his St. Joseph cost study. However, my cost study differs in that I have made a more detailed functionalization of the transmission and distribution mains. Specifically, I have made a distinction between transmission mains which are 12" and greater in diameter, and those distribution mains which are 10" and less in

1 diameter. Because the smaller mains are inadequate to provide service to larger  
2 customers such as industrial and wholesale customers, and for the provision of fire  
3 protection service, I have removed the operating and capital costs associated with the  
4 distribution system from the assignment of costs to these classes. The peak demands  
5 by these users require that service be taken from larger diameter mains. The bulk of the  
6 distribution system, consisting of smaller mains, is used to connect residential and  
7 commercial customers to the system. These customers individually have much smaller  
8 demands that can be met through smaller diameter mains. The capital and operating  
9 costs associated with these mains should therefore be assigned to the classes who  
10 make the most use of them. This avoids the misallocation of costs and making service  
11 to large users appear more expensive than it really is.

12 **Q HAVE YOU SEEN THIS DISTINCTION BETWEEN TRANSMISSION AND**  
13 **DISTRIBUTION MAINS USED IN OTHER WATER COST OF SERVICE STUDIES**  
14 **PRESENTED IN WATER UTILITY RATE CASES?**

15 A Yes, I have. I have seen it used in a number of states, including Illinois, Indiana and  
16 West Virginia.

17 **Q WHAT ARE THE RESULTS OF YOUR COST OF SERVICE STUDY?**

18 A The results of my cost of service study for the St. Joseph District are shown in Schedule  
19 1R-RD. The present revenues are shown in Column 1, and the cost of service revenues  
20 are shown in Column 2. The increase needed to reach cost of service for each class is  
21 shown in Column 3, while Column 4 presents the increases on a percent basis.  
22 The results of my study are significantly different from those derived by Mr. Hubbs, as  
23 shown on his Schedule WRH 2-1 for the St. Joseph District.

**Ernest Harwig**  
**Page 6**



1 Q PLEASE COMPARE THE PERCENT INCREASES NECESSARY TO REACH THE  
2 COST OF SERVICE STUDY PRODUCED BY YOUR STUDY AND MR. HUBBS'  
3 STUDY.

4 A These can be summarized in the Table 1 below.

TABLE 1			
<u>Percent Increase Required to Reach Cost of Service</u>			
<u>Line</u>	<u>Class</u>	<u>Per Staff</u>	<u>Per Intervenors</u>
1	Residential	0.8	8.9
2	Commercial	1.8	12.6
3	Industrial	48.0	14.7
4	Pub Auth	18.9	38.0
5	Fire Protection	(23.9)	(32.3)
6	Resale	85.0	40.8
7	Overall	12.5	12.5

5 My study shows that any increases to the industrial class in St. Joseph should be much  
6 closer to the system average increase, if rates are to reflect district-specific costs in this  
7 case.

8 Q ARE YOU RECOMMENDING THAT MAWC RECEIVE THIS LEVEL OF INCREASE IN  
9 THE ST. JOSEPH DISTRICT?

10 A No, I am not. I am simply comparing the results of my correction of Mr. Hubbs' study to  
11 recognize the utilization of transmission and distribution mains by different classes.  
12 Further, it is also my understanding that Mr. Hubbs is including in his revenue  
13 requirement only the first phase of several increases the Staff is proposing for the St.  
14 Joseph District.

**1 Q WHY DOES SUCH A RELATIVELY SMALL INCREASE IN REVENUES PRODUCE**  
**2 SUCH DRAMATIC SHIFTS IN REVENUES, EVEN ACCORDING TO THE RESULTS**  
**3 OF YOUR COST OF SERVICE STUDY?**

**4 A** This is the result of STP pricing. Since 1995, rates have been set and designed on a  
**5** total Company basis. This not only shifted costs among districts, it also failed to  
**6** recognize cost of service differences among classes within individual districts.

**7 Q DO YOU AGREE WITH THE SYSTEM LOAD FACTORS AND CLASS ALLOCATORS**  
**8 UTILIZED BY MR. HUBBS IN HIS ST. JOSEPH COST OF SERVICE STUDY?**

**9 A** Absent actual district-specific data, system load factors based on historical experience  
**10** may not be inappropriate. Therefore, I used the same St. Joseph peak allocators Mr.  
**11** Hubbs has chosen. However, as I noted before, the mains should be functionalized into  
**12** transmission and distribution components.

**13 Q IF YOUR COST OF SERVICE METHOD WERE APPLIED TO THE REVENUE**  
**14 REQUIREMENT FOR THE ST. JOSEPH DISTRICT THAT REFLECTS THE**  
**15 DISALLOWANCE SUPPORTED BY DR. CHARLES MORRIS IN HIS DIRECT**  
**16 TESTIMONY, WHAT WOULD BE THE IMPACT?**

**17 A** Even with the recommended disallowance, the impact would be quite large and  
**18** disproportionate for some classes. In that circumstance, it may be preferable to  
**19** increase rates across the board in this case and make adjustments to the relationships  
**20** among individual class rates in subsequent rate cases.

1 **Testimony of Ms. Hong Hu**

2 **Q HAVE YOU REVIEWED THE TESTIMONY AND THE COST OF SERVICE STUDIES**  
3 **FILED BY MS. HONG HU IN THIS PROCEEDING?**

4 A Yes, I have. Ms. Hu has performed district-specific cost of service studies for each of the  
5 water utilities operated by MAWC. Ms. Hu also employs the basic framework of the  
6 Base-Extra Capacity method to allocate costs. However, at pages 5 and 6 of her direct  
7 testimony, Ms. Hu explains how she adjusted the normal peaking factors to reflect her  
8 notion of cost behaviors created by what she characterizes as economies of scale. To  
9 summarize, Ms. Hu asserts that economies of scale in sizing water facilities may permit  
10 peak loads to be served at incremental capital costs which are less than average costs.  
11 To reflect this, she utilized an "economies of scale factor" of 0.5, which was applied to all  
12 extra capacity-related facilities as a generalization. Ms. Hu acknowledged that she did  
13 not assess the magnitudes of economies in facilities other than transmission and  
14 distribution mains.

15 **Q DO YOU AGREE WITH MS. HU'S INTRODUCTION OF AN ECONOMIES OF SCALE**  
16 **FACTOR INTO THE BASE-EXTRA CAPACITY METHOD?**

17 A No, I strongly disagree for several reasons. First, the introduction of an economies of  
18 scale factor into the Base-Extra Capacity method is a major departure from the  
19 illustration of that method presented in Water Rates, Manual M-1 published by the  
20 American Water Works Association. As I stated previously, the Base-Extra Capacity  
21 method in its existing form is widely accepted as an appropriate means of assigning and  
22 identifying peak-related costs. While the Association warns against using the Water  
23 Rates Manual as a cook book, it does clearly state that maximum day and maximum  
24 hour volumes are to be used to determine peak allocation factors. In my experience, I

Ernest Harwig  
Page 9

1 have never seen the procedure she recommends used in any other water cost of service  
2 study, with the sole exception of the studies presented by OPC in Case No. WO-98-204.

3 Second, to be consistent, any incremental costing should be used throughout a  
4 cost of service study; it should not be confined to an analysis of extra capacity costs. To  
5 confine it in this manner produces a "piecemeal" application of incremental costing to  
6 cost classification. At a minimum, both base and extra capacity costs should be  
7 incrementally costed. For example, although the cost of a main is, in part, a function of  
8 its diameter, it is also a function of the length of the main. The length of the main, is, in  
9 turn, related to the number of customers served. A main of some minimum size is  
10 required to attach each customer to the system. In other words, some portion of the  
11 cost of mains should be classified as customer-related. Ms. Hu has not made such a  
12 classification of mains.

13 Third, the amount of capacity required for peaking purposes is highly  
14 judgmental. Each segment of the system (intakes, filters, pumps, motors, pipes, valves  
15 and equipment) would have to be analyzed and "resized" for average annual use. This  
16 could easily raise more questions than it answers. For example, depending on the  
17 location and function of a particular segment of pipe, it would be unclear that only two  
18 inches of additional diameter would be the correct amount to allow for peaking capacity.  
19 In this regard, as I pointed out above, Ms. Hu acknowledges that she has performed no  
20 engineering studies of the plants in the various districts as it pertains to her claimed  
21 economies of scale.

1 **Q WHAT IS THE RESULT OF APPLYING MS. HU'S ECONOMIES OF SCALE FACTOR**  
2 **TO THE BASE-EXTRA CAPACITY METHOD?**

3 A Ms. Hu's modification in effect allocates all costs, other than customer-related costs, on a  
4 volumetric basis. The maximum day and maximum hour peaking factors used for the  
5 purpose of allocating costs to the various customer classes are virtually identical with the  
6 base or volume-related allocator. This is illustrated in Table 2 below for the St. Joseph  
7 District.

<b>TABLE 2</b>					
<b><u>Comparison of OPC's Classification</u></b>					
<b><u>Factors for the St. Joseph District</u></b>					
<b><u>(Percents)</u></b>					
<b><u>Line</u></b>	<b><u>Factor</u></b>	<b><u>Residential</u></b>	<b><u>Commercial</u></b>	<b><u>Industrial</u></b>	<b><u>Resale</u></b>
1	Base	36	20	25	16
2	Base/Max Day	37	20	24	16
3	Base/Max Hour	40	20	21	16

8 **Q WHAT DOES THIS TABLE SHOW?**

9 A It shows that for the commercial and resale classes, there is virtually no difference in the  
10 allocators for base, or volumetric costs, as compared to the allocators for max day and  
11 max hour costs. For the residential and industrial classes, the differences between the  
12 base allocators and the max day and max hour allocators are minimal. This clearly  
13 shows how Ms. Hu's claimed economies of scale factor inappropriately distort her  
14 results.

1   **Q    ARE THERE ANY OTHER IMPLICATIONS FROM MS. HU'S ECONOMIES OF SCALE**  
2   **APPROACH TO CALCULATING PEAK-RELATED ALLOCATORS?**

3   A    Yes. Her method shifts costs from peak periods into off-peak periods. This implies that  
4       there are virtually no peaking costs incurred by the utility in providing service. It is clear  
5       that the introduction of an economies of scale factor undermines the essential purpose  
6       and intent of utilizing the Base-Extra Capacity method: namely, to adequately identify  
7       and separate peak-related costs so that they can be assigned to the customer classes  
8       that cause them. Indeed, economies of scale are already recognized by the Base-Extra  
9       Capacity method itself, and it does not require any further tampering to show the savings  
10      associated with serving a high load factor class that does not utilize the distribution  
11      system to any great extent.

12               Thus, I recommend that OPC's cost of service model not be utilized to assign  
13      any revenue requirements found to be reasonable by the Commission to the various  
14      customer classes in the individual districts.

15   **Q    AT PAGE 10 OF HER DIRECT TESTIMONY, MS. HU CONCLUDES THAT THE**  
16   **INDUSTRIAL CLASS IN MOST DISTRICTS AND THE SALES FOR RESALE CLASS**  
17   **IN ALL DISTRICTS ARE PAYING LESS THAN THEIR APPROPRIATE SHARE OF**  
18   **THE TOTAL COST OF SERVICE. DO YOU AGREE WITH THIS CONCLUSION?**

19   A    No, I do not. Ms. Hu's conclusion is based on the results of her flawed cost of service  
20       studies, where, as I have shown, the introduction of an economies of scale factor causes  
21       the understatement of peak-related costs. As a result, those classes which are mainly  
22       responsible for creating the peaks in the first place, namely the residential and  
23       commercial classes, do not have an appropriately large share of costs allocated to them.  
24       As a result, costs are overallocated to the industrial and resale classes. Thus, one

Ernest Harwig  
Page 12

1 cannot conclude that industrial and wholesale users are paying less than their  
2 appropriate share of the total cost of service.

3 **Testimony of Mr. James A. Busch**

4 **Q HAVE YOU REVIEWED THE DIRECT TESTIMONY AND EXHIBITS OF MR. BUSCH**  
5 **FILED ON BEHALF OF OPC IN THIS PROCEEDING?**

6 **A** Yes, I have. Mr. Busch is recommending that the Commission approve a rate design  
7 that moves away from Single Tariff Pricing (STP). He also states that Public Counsel  
8 does not believe that the justifications put forth by MAWC in support of STP constitute  
9 positive or reasonable arguments for uniform rates in this case.

10 **Q MR. BUSCH STATES THAT RETURNING TO DISTRICT-SPECIFIC PRICING**  
11 **COMPLETELY IN THIS CASE COULD POSE SOME SERIOUS RATE SHOCK**  
12 **CONSIDERATIONS TO CERTAIN DISTRICTS. HE THEREFORE ADVOCATES THAT**  
13 **THE COMMISSION ADOPT A SLOWER APPROACH TO IMPLEMENT DISTRICT-**  
14 **SPECIFIC RATES BASED ON THE COST OF PROVIDING SERVICE IN THE**  
15 **INDIVIDUAL DISTRICTS. PLEASE COMMENT ON THIS.**

16 **A** I agree with Mr. Busch's recommendation to move toward district-specific rates based on  
17 the cost of providing service within the individual districts. However, I have some  
18 disagreement with the method of implementing district-specific rates and the degree to  
19 which class rates should be increased or decreased as set forth in Mr. Busch's exhibits.

20 **Q PLEASE EXPLAIN.**

21 **A** While I appreciate Mr. Busch's attempt to mitigate rate shock in the movement toward  
22 district-specific rates, I believe that the Joplin district, in particular, should either receive

1 a rate decrease, or at a very minimum, no increase at all. All the evidence filed thus far  
2 in this case supports a rate decrease for the Joplin District. Nonetheless, Mr. Busch  
3 recommends a 10% increase in rates. I believe this perpetuates an injustice to Joplin  
4 ratepayers that has endured for several years.

5 Second, the quantitative increases shown in Mr. Busch's exhibits depends on  
6 cost of service studies filed by OPC in Case No. WR-98-204 and this case. As I have  
7 previously discussed, these cost studies utilize an economies of scale factor which  
8 distorts the allocation of peaking costs among the various customer classes.

9 **Q MR. BUSCH PROPOSES THAT RATES APPROACH COST OF SERVICE IN THE**  
10 **VARIOUS DISTRICTS OVER MULTI-YEAR PERIODS. DO YOU HAVE ANY**  
11 **OBJECTION TO SUCH AN APPROACH?**

12 **A** No, I do not, provided that a series of rates increases (except for Joplin), to take effect  
13 on predetermined dates, is approved by the Commission.

14 **Testimony of Dr. Janice A. Beecher**

15 **Q PLEASE COMMENT ON THE TESTIMONY SPONSORED BY DR. BEECHER IN THIS**  
16 **PROCEEDING.**

17 **A** At Page 9 of her testimony, Dr. Beecher states that STP is a public policy issue because  
18 it involves tradeoffs among competing policy objectives. For example, the goals of  
19 small-system viability and affordability may appear to be incompatible with economic  
20 efficiency and rates based on the cost of providing service.

21 Dr. Beecher also notes at pages 10 and 11 of her direct testimony that STP has  
22 emerged in the regulatory context because it has been placed on the regulatory policy  
23 agenda by the investor-owned water industry.



1   **Q     WHAT ARE SOME OF THE ASPECTS OF STP AS A POLICY ISSUE WHICH A**  
2   **REGULATORY BODY SHOULD CONSIDER?**

3   **A**     First and foremost, regulators should consider the justification for creating regulation in  
4           the first place and the context in which regulation occurs. Certain industries, such as  
5           public utilities and transportation, are characterized by large initial fixed investment and  
6           the ability to achieve economies of scale in overall operations. Because competition  
7           would create wasteful duplicative facilities, such enterprises are granted monopoly  
8           status. In return for this status, the enterprise is limited to a reasonable return on its  
9           investment as determined by the appropriate regulatory body. This reflects the  
10          underlying philosophy that a public utility should not be allowed to abuse its monopoly  
11          position by extracting an unreasonable level of profit from customers who have no  
12          alternative suppliers.

13                 However, STP can produce rates which violate this principle. In order for a  
14          water utility to earn an overall return on its investment which is considered reasonable, it  
15          must charge STP rates that can be very high relative to cost in some districts, while  
16          selling its product at rates below cost in others. The result is that the regulatory  
17          agreement, as it pertains to a reasonable return, is applied to some customers but not  
18          to others. Thus, they are treated unequally and inequitably.

19   **Q     DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

20   **A**     Yes, it does.

**MISSOURI - AMERICAN WATER COMPANY  
ST. JOSEPH DISTRICT**

**Comparison of Class Cost of Service Results  
and Revenues Produced by Present Rates**

<u>Line</u>	<u>Description</u>	<u>Present Revenues</u> (1)	<u>Cost of Service</u> (2)	<u>Increase</u>	
				<u>Amount</u> (3)	<u>Percent</u> (4)
1	Residential	\$5,593,027	\$6,088,777	\$495,750	8.9%
2	Commercial	1,896,607	2,136,138	239,531	12.6%
3	Industrial	1,226,652	1,407,191	180,539	14.7%
4	Other Public Authority	279,760	386,129	106,369	38.0%
5	Sales for Resale	647,465	911,322	263,857	40.8%
6	Fire	<u>181,203</u>	<u>122,719</u>	<u>(58,484)</u>	-32.3%
7	Total	\$9,824,714	\$11,052,276	\$1,227,562	12.5%