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Case Nos.:

Class Cost of Service, Rates

Hubbs, Wendell R.

MoPSC Staff

WR-2000-281 & SR-2000-282

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

MISSOURI-AMERICAN WATER COMPANY

WATER & SEWER RATE CASE

CASE NOS. WR-2000-281

& SR-2000-282

SURREBUTTAL TESTIMONY

OF

WENDELL R. HUBBS

Jefferson City, Missouri

May, 2000

1 Mower and Machine Company; Missouri Industrial Energy Consumers and St.
2 Joseph Industrial Water Users witness Ernest Harwig.

3 I will address these testimonies by the general issues of Single Tariff
4 Pricing, Cost Allocation to Customer Classes and Rate Design.

5
6 **SINGLE TARIFF PRICING**

7 Q. Regarding the issue of single tariff pricing (STP), Mr. Stout states on page
8 8 of his rebuttal testimony that you have not considered any rate design factors other than
9 cost. Is this a true statement?

10 A. Mr. Stout is incorrect with regard to whether or not I considered any rate
11 design factors other than cost, in the proposals contained in my direct testimony. I also
12 considered the political, social, economic and environmental issues. At the time I
13 developed my direct testimony, I did not have information regarding the impact of the
14 updated plant and expense adjustments, including the St. Joseph treatment plant, that
15 greatly affected the results of the cost of service studies in this proceeding.

16 Mr. Stout would be correct in stating that with regard to the rates and their
17 development as contained in my direct testimony, I did not present testimony that takes
18 into consideration rate design factors other than cost.

19 With the resources available to me, I strove to present the Commission
20 with an example of a district specific pricing (DSP) scenario using the base-extra
21 capacity method of cost allocations. I was relatively certain that no other party to this

1 case would present such a scenario. I presented the Commission with this scenario since
2 one of the main issues in this case is DSP vs. STP. My direct testimony was also
3 presented to provide the other parties with detail on the allocations I would be presenting
4 in my rebuttal testimony. The most valid information available is not that which is
5 presented in my direct testimony, but that which I developed and included as schedules to
6 my rebuttal testimony. My rebuttal testimony was updated to incorporate the changes in
7 the Staff's cost of service that occurred as a result of the Prehearing Conference in this
8 case. These changes included the estimated true-up of additional plant (i.e. St. Joseph
9 treatment plant) being incorporated into the computations. If the Commission decides to
10 go to DSP in this proceeding, my testimony should give them an idea of where they are
11 headed and what the impacts are likely to be.

12 One of the main reasons I did not present definitive social, political,
13 economic or environmental recommendations is that I am of the opinion that such
14 recommendations should be made separate and apart from the Commission's decision
15 regarding the appropriate class cost-of-service allocations. In other words, the
16 determination of the appropriate class cost-of-service should be made, and the results of
17 that determination should then be modified to incorporate any other decisions that the
18 Commission makes regarding rates. Determinations on cost-of-service allocations are
19 difficult enough without throwing non-cost modifications into the mix. Without the
20 substantial plant additions being contained in the rate design runs, one cannot accurately
21 assess the relative needs of these other non-cost factors.

1 What my direct testimony does show is the effect that DSP has on rates as
2 compared to STP.

3 Q. Continuing on page 8 of his rebuttal testimony, Mr. Stout states that your
4 proposed rates are beyond the bounds of gradualism. How do you respond to this
5 statement?

6 A. Mr. Stout is correct. For example, the allocated cost of service for the
7 Brunswick District is extremely out of the bounds of gradualism. The Brunswick rates
8 that result from this allocated cost of service are also extremely beyond the bounds of
9 gradualism. The impact problems with the Brunswick system do not stem totally from
10 the DSP rates that were developed using the base-extra capacity method. These impact
11 problems exist because the Company has made investments in the community of
12 Brunswick, where the cost to serve customers is at least two and one-half times higher
13 than the most expensive rates of the other districts (see Hubbs; Rebuttal Testimony,
14 Schedule 4, for each district). To address the customer impact problems that will result
15 in Brunswick if the Commission implements rates of the basis of DSP-allocated costs, I
16 recommend that Brunswick's commodity rates be set equal to the highest commodity
17 rates of the other districts, and that the differential of DSP-allocated costs no recovered
18 by the application of this rate be applied to the Joplin District classes.

19 Also, as Mr. Stout states, the allocated cost of service for many customer
20 classes in my study results in rate increases in excess of 100%. I agree with Mr. Stout
21 that a one-time move to these levels of rates is out of the bounds of gradualism. If the

1 Commission institutes DSP rates, the principle of gradualism should be implemented
2 through the phase-in of rates. In fact, though this was not discussed in my direct
3 testimony, this matter was discussed in the direct testimony of Staff witness Steve
4 Rackers. I would also recommend that whatever appropriate cost-of-service level the
5 Commission determines to implement for Brunswick also be phased into rates with in the
6 bounds of gradualism.

7 Q. Mr. Stout also states that your rate changes do not recognize the "value of
8 Service" principle. Do you agree with this assessment?

9 A. If he is speaking about the rates I generated which would be required to
10 recover the Brunswick cost of service, he is correct. I am of the opinion that the value of
11 the service is not equal to the extremely high level of the cost of service for this
12 community.

13 With no explanation in his rebuttal regarding value of service related to
14 my testimony, I have no idea about any other value of service problems he is speaking to.

15 Q. Mr. Stout, again on page 8 of his rebuttal testimony, states that your rate
16 changes are confusing in that there would be over 30 rate schedules for MAWC. Do you
17 agree with that assessment?

18 A. No, I do not. Each class of customer for each district will have its own
19 rate tariff sheet with rates designed to recover its allocated cost of service. The rates
20 contained on each of these tariff sheets should be designed to recover the cost of service
21 determined appropriate by the Commission. A residential customer in St. Charles will be

1 served off the District Specific rate tariff sheet for residential service. A tariff sheet
2 serving a class of customer for each district should not be that difficult to find.

3 I am recommending that rates be designed for each district to recover the
4 Commission-determined allocated cost of service using a different tariff sheet for each
5 class of service. This should be accomplished regardless of whether the Commission
6 adopts DSP or STP.

7 Q. Mr. Hubbs, have you reviewed Mr. Stout's rebuttal testimony regarding
8 his "Capital Addition Surcharge Proposal"?

9 A. Yes, I have. On pages 17 through 19 of his rebuttal testimony, Mr. Stout
10 proposes a modification to his STP proposal. This proposal uses STP rates for all
11 districts with a surcharge applicable only to the St. Joseph district customers.

12 Q. What is your opinion on this proposal?

13 A. It is a proposal that is between STP and DSP. If the Commission
14 approves STP, I am of the opinion that Mr. Stout's cost-of-service allocations contained
15 in his direct testimony proposal should be phased-in and that his rebuttal proposal should
16 not be adopted. If DSP is approved as the appropriate method of rate making, this
17 proposal is not valid. The Commission should decide on one method of rate design or
18 the other and phase in the changes consistent with that decision.

19
20 **COST ALLOCATION TO CUSTOMER CLASSES**

21 Q. Mr. Hubbs, have you reviewed the rebuttal testimony of Hong Hu of the

1 Office of the Public Counsel?

2 A. Yes, I have.

3 Q. Please summarize her opinion regarding the allocation of costs contained
4 on pages 8 through 16 of her rebuttal testimony.

5 A. Ms. Hu states, on page 16 of her rebuttal testimony, that the allocation
6 method used by the Staff and the Company, the base-extra capacity method, is not
7 appropriate for the allocation of capacity-related costs. She states that the base-extra
8 capacity method allocates too much cost to low load factor groups, such as the residential
9 class, and too little cost to high load factor groups, such as the industrial class. She states
10 the reason for this overallocation is that the base-extra capacity method of allocation
11 produces peak responsibility allocation factors.

12 Q. Please comment on her recommendation and allocation method.

13 A. Ms. Hu is correct that the base-extra capacity method of allocation does
14 utilize peak usage to allocate capacity-related facilities and that the results of the method
15 are similar to the results of a peak usage method. The base-extra capacity method is
16 designed to allocate capacity costs based on the relative peak demands of the users.

17 Ms. Hu is incorrect where she states that the base-extra capacity method is
18 not appropriate for the allocation of capacity-related (peak-related) costs. The base-extra
19 capacity method allocates appropriate costs based on the peak use of the system. The
20 peaking requirements for each class of service represent that portion of the costs that are
21 needed to provide service for peak usage. The base-extra capacity allocates these costs

1 based on their capacity needs (peak usage). Therefore, the base-extra capacity method
2 will allocate the costs of system facilities between the classes based upon the capacity
3 usage of the separate classes. Low load factor customers require more capacity to be
4 served, and they therefore use a greater proportion of the capacity-related facilities than
5 high load factor customers do; therefore, they should pay the costs associated with the
6 capacity-related facilities they use. There is no reason for a more efficient, high load
7 factor customer class (i.e. industrial customers) to pay for the costs of that portion of the
8 capacity-related facilities they do not use - facilities that the low load factor class (i.e.
9 residential customers) need and use.

10 In my opinion, allocation of capacity-related facilities based on a method
11 that does not assign capacity-related costs on a capacity or peaking basis is not
12 appropriate.

13 Q. On page 10 of her rebuttal testimony, Ms. Hu states that the base-extra
14 capacity method is a pure peak responsibility allocation. Do you agree with this
15 statement?

16 A. No, I do not. The cost allocations to low load factor customers (i.e.
17 residential customers) should result in a slightly greater allocation of capacity-related
18 costs than would result from a pure peak responsibility allocation.

19 Q. Also on page 10 of her rebuttal testimony, Ms. Hu states that the
20 Commission should reject any CCOS (class cost of service) study that relies on this kind

1 of allocation method, unless it is modified to better reflect the cost causation
2 responsibility associated with different usage patterns. Do you agree with this statement?

3 A. No, I do not agree. The base-extra capacity method properly reflects the
4 cost causation responsibility associated with the different usage patterns of the classes.
5 The base-extra capacity method allocates costs based on average use and on capacity use
6 over average use. Base capacity is allocated based on class average use and extra
7 capacity (that is, that use which exceeds average use) is allocated based on peak use. The
8 base-extra capacity method allocates costs related to the capacity of the system based on
9 each specific class use. I am of the opinion that a better reflection of the class use of the
10 system does not exist. Ms. Hu, on page 9 of her rebuttal testimony, correctly states that a
11 reasonable cost allocation methodology should give weight to both class annual water
12 consumption and class maximum water demand. This is exactly what the base-extra
13 capacity method provides.

14 Q. Ms. Hu, on page 13 of her rebuttal testimony, states that examination of
15 the formula for allocating costs by the two methods demonstrates that these two methods
16 are mathematically identical. Do you agree with this statement?

17 A. No, I do not. Comparing the district-specific class usage allocators to the
18 system peak loads does not result in mathematically identical figures.

19 Q. Mr. Hubbs have you reviewed the rebuttal testimony of Mr. Harwig?

20 A. Yes, I have.

21 Q. Please discuss his "correction" of your allocation-per-class study

1 which is contained on pages 5 and 6 of his rebuttal testimony.

2 A. Mr. Harwig states that my allocation of transmission and distribution
3 mains is incorrect. Mr. Harwig states that he has modified my study for the St. Joseph
4 District, using a more detailed functionalization of the transmission and distribution
5 mains. He states that he made the distinction between transmission mains (12" and
6 greater in diameter), and distribution mains (10" and less in diameter). Having not yet
7 received a copy of the detail of his allocation, it appears that he is assigning no
8 distribution mains to the industrial and wholesale customers. He states that smaller
9 mains are inadequate to provide service to larger customers such as industrial and
10 wholesale customers and for the provision of fire protection services. Mr. Harwig's
11 observation is incorrect; many industrial customers are small users and can be served
12 from mains smaller than 12" in diameter. In fact, approximately 85% of the industrial
13 customers are served with 2" or smaller meters and approximately 97% of the industrial
14 customers are served with 4" or smaller meters. Most industrial users can be served from
15 10", 8" and 6" mains. Industrial customers might be using a substantial portion of the
16 distribution system for their service. Mr. Harwig's allocation would erroneously allocate
17 distribution-related capital and operating costs to classes other than the industrial class.

18 I did not have the information to perform a detailed analysis of what
19 portions of the transmission and distribution system are used by the industrial, and the
20 sales-for-resale class. Nor do I have a cost detail of what portions of the transmission
21 and distribution systems are serving the industrial class and the sales-for-resale class.

1 Mr. Harwig's allocation of costs away from these customers, because some of them may
2 be served only by large mains, is not accurate, or is it a valid reason to pass all
3 distribution-related costs to other classes of customers. Again, I allocated total system
4 transmission and distribution cost based on each class's system usage and demands.

5 I also attempted to derive an allocation method that could recognize
6 system differences related to the cost of the transmission and distribution facilities by
7 class. I did not accomplish this. Absent a valid alternative allocation method, I used the
8 system use and design approach based on base-extra capacity method of allocation.

9 Q. On page 6 of his rebuttal testimony Mr. Harwig states that he has seen the
10 distinction between transmission and distribution mains used in other water cost of
11 service studies presented in water utility rate cases in Illinois, Indiana and West Virginia.
12 Please respond to this statement.

13 A. If such distinction was made on a class basis, where the greater majority
14 of the industrial customers were smaller, and were served off the distribution system,
15 then these distinctions in other states would be just as invalid as Mr. Harwig's
16 distinctions.

17 **RATE DESIGN**

18 Q. On page 3 of his rebuttal testimony, Mr. Busch states the primary
19 goal of a rate design structure should be to balance economic efficiency with equity and
20 affordability considerations. Do you agree that this is the primary goal of a rate design
21 structure?

1 A. No, I do not. The primary goal of a class rate design structure is to
2 recover costs from those who cause the costs to be incurred. Anything less promotes
3 intentional discrimination. Although there may be valid reasons for temporal intentional
4 discrimination, such as gradualism and customer impact considerations, these
5 considerations should be separate from the target rate design structure. Mr. Busch
6 appears to define economic efficiency in terms of movement toward cost-based rates.
7 Since he is arguing for DSP allocations, achievement of economic efficiency would
8 therefore be effected by the total movement to the target rate design structure.

9 I also have a concern with Mr. Busch's promotion of what he calls
10 "fairness." He appears to define "fairness" as allowing for some temporary sharing
11 (intentional discrimination) to alleviate the massive rate shock that would occur from a
12 one-time movement to DSP. I do not see this as a rate design structure goal. I do see it
13 as a reason for temporal intentional discrimination related to customer impact
14 considerations. I could not find in Mr. Busch's rebuttal testimony where he defines the
15 "affordability" aspect of his primary goal for class rate design structure, but, if it entails
16 intentional discrimination from the cost-of-service determinations to provide social or
17 political relief to one class at the expense of another class, or at the expense of the
18 Company, I disagree that it should be a primary goal for the rate design structure. Social
19 programs are usually left to the discretion of the legislature where the entire body of
20 taxpayers can subsidize the program, not just specific ratepayers.

1 Q. Mr. Busch states on page 7 of his rebuttal testimony that he is not aware
2 of any plans for phase-in for other districts besides St. Joseph. Have you made any
3 recommendations regarding any phase-in approved by the Commission?


4 A. Yes. I have recommended to Steve Rackers of the Commission's
5 Accounting Staff that any phase-in approved by the Commission start with the
6 implementation of the proposed changes to the monthly customer charge for each class;
7 then that adjustments to the commodity rates for each class be made to obtain the cost of
8 service levels approved for each class by the Commission. It would also simplify
9 implementation of the phase-in amounts if the St. Joseph District phase-in was also
10 accomplished in this manner. **It is important that the Commission approve a cost-of-**
11 **service level for each class for each district to assist in the proper setting of rates**
12 **consistent with their decisions.**

13 Q. Does this conclude your prepared surrebuttal testimony in this case?

14 A. Yes, it does.

In the Matter of Missouri-American Water Company's)	
Tariff Sheets Designed to Implement General Rate)	Case No. WR-2000-281
Increases for Water and Sewer Service provided to)	Case No. SR-2000-282
customers in the Missouri Service area of the Company)	(Consolidated)

STATE OF MISSOURI)
) ss
COUNTY OF COLE)


Wendell R. Hubbs

Sharon J. Miles
Notary Public

My commission expires _____