

Exhibit No.:
Issues: Cost Allocation/Rate Design
Witness: Paul R. Herbert
Exhibit Type: Direct
Sponsoring Party: Missouri-American Water Company
Case No.: WR-2010-XXXX
 SR-2010-XXX
Date: October 30, 2009

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2010-XXXX
CASE NO. SR-2010-XXX

DIRECT TESTIMONY

OF

PAUL R. HERBERT

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

**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-2010-XXXX CASE NO. SR-2010-XXXX
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AFFIDAVIT OF PAUL R. HERBERT

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



Paul R. Herbert

**Commonwealth of Pennsylvania
County of Cumberland
SUBSCRIBED and sworn to
Before me this 22nd day of October 2009.**



Notary Public

My commission expires: February 20, 2011

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

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**WITNESS INTRODUCTION AND
QUALIFICATIONS AND EXPERIENCE**

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1. **Q. Please state your name and address.**

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

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2. **Q. By whom are you employed?**

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A. I am employed by Gannett Fleming, Inc.

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3. **Q. Please describe your position with Gannett Fleming, Inc. and briefly state your general duties and responsibilities.**

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A. I am President of the Valuation and Rate Division. My duties and responsibilities include the preparation of accounting and financial data for revenue requirement and cash working capital claims, the allocation of cost of service to customer classifications, and the design of customer rates in support of public utility rate filings.

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4. **Q. Have you presented testimony in rate proceedings before a regulatory agency?**

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A. Yes. I have testified before the Pennsylvania Public Utility Commission, the New Jersey Board of Public Utilities, the Public Utilities Commission of Ohio, the Public Service Commission of West Virginia, the Kentucky Public Service Commission, the Iowa State Utilities Board, the Virginia State Corporation Commission, the Missouri Public Service Commission, the New Mexico Public Regulation Commission, the Public Utilities Commission of the State of California, the Illinois Commerce Commission, the Arizona Corporation

1 Commission, the Delaware Public Service Commission, and the Tennessee
2 Regulatory Authority, concerning revenue requirements, cost of service
3 allocation, rate design and cash working capital claims. A list of cases in
4 which I have testified is attached to my testimony.

5 **5. Q. What is your educational background?**

6 A. I have a Bachelor of Science Degree in Finance from the Pennsylvania State
7 University, University Park, Pennsylvania.

8 **6. Q. Would you please describe your professional affiliations?**

9 A. I am a member of the American Water Works Association and serve as a
10 member of the Management Committee for the Pennsylvania Section. I am
11 also a member of the Pennsylvania Municipal Authorities Association. In
12 1998, I became a member of the National Association of Water Companies
13 as well as a member of its Rates and Revenue Committee.

14 **7. Q. Briefly describe your work experience.**

15 A. I joined the Valuation Division of Gannett Fleming Corddry and Carpenter,
16 Inc., predecessor to Gannett Fleming, Inc., in September 1977, as a Junior
17 Rate Analyst. Since then, I advanced through several positions and was
18 assigned the position of Manager of Rate Studies on July 1, 1990. I was
19 promoted to Vice President on June 1, 1994 and Senior Vice President in
20 November 2003. On July 1, 2007, I was promoted to my current position as
21 President of the Valuation and Rate Division.

22 While attending Penn State, I was employed during the summers of
23 1972, 1973 and 1974 by the United Telephone System - Eastern Group in its

1 accounting department. Upon graduation from college in 1975, I was
2 employed by Herbert Associates, Inc., Consulting Engineers (now Herbert
3 Rowland and Grubic, Inc.), as a field office manager until September 1977.

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

5 A. The purpose of my testimony is to present and explain Missouri-American
6 Water Company's (or MAWC or Company) cost of service allocation studies
7 (sometimes called class cost of service studies) and proposed rate designs
8 set forth in Schedule PRH-1.

9 **9. Q. Was Schedule No. PRH-1 prepared by you or under your direction and
10 supervision?**

11 A. Yes, it was.
12

13 **COST OF SERVICE ALLOCATION**

14 **10. Q. Briefly describe the purpose of your cost allocation studies.**

15 A. The purpose of the studies was to allocate the district specific cost of service,
16 which is the total revenue requirement, for MAWC water operations to the
17 customer classifications in each operating district. The operating districts
18 include Brunswick (BRU), Jefferson City (JFC), Joplin (JOP), Mexico (MEX),
19 Parkville (PKW), St. Joseph (SJO), Warrensburg (WAR), Warren County
20 Water (WCW), and the St. Louis Metro Area (SLM) which includes the former
21 St. Charles (SCH) district. Cost allocation studies were not performed for the
22 sewer districts in Parkville, Cedar Hill and Warren County since these districts
23 are predominantly residential customers.

1 In the studies, the district specific costs were allocated to the
2 residential, commercial, industrial, other public authorities, sales for resale,
3 private fire protection and public fire protection classifications in accordance
4 with generally accepted principles and procedures. The cost of service
5 allocation studies results in indications of the relative cost responsibilities of
6 each class of customers in each operating district. The allocated cost of
7 service is one of several criteria appropriate for consideration in designing
8 customer rates to produce the required revenues. The results of the
9 allocation of the district specific cost of service for the test year ended June
10 30, 2009, and proposed customer rates which produce the pro forma revenue
11 requirements, are presented in the studies.

12 **11. Q. Please describe the method of cost allocation that was used in your**
13 **study.**

14 A. The base-extra capacity method, as described in 2000 and prior Water Rates
15 Manuals published by the American Water Works Association (AWWA), was
16 used to allocate the pro forma costs. Base-extra capacity is a recognized
17 method for allocating the cost of providing water service to customer
18 classifications in proportion to the classifications' use of the commodity,
19 facilities, and services. It is generally accepted as a sound method for
20 allocating the cost of water service and was used by the Company in previous
21 cases.

22 **12. Q. Please describe the procedure followed in each of the cost allocation**
23 **studies.**

24 A. Each identified classification of cost in the district specific cost of service was

1 allocated to the customer classifications through the use of appropriate
2 factors. These allocations are presented in Schedule B for each study. The
3 items of cost, which include operation and maintenance expenses, deprecia-
4 tion expense, taxes and income available for return, are identified in column 1
5 of Schedule B. The cost of each item, shown in column 3, is allocated to the
6 several customer classifications based on allocation factors referenced in
7 column 2. The development of the allocation factors is presented in Schedule
8 C. I will use some of the larger cost items to illustrate the principles and
9 considerations used in the cost allocation methodology.

10 Purchased water, purchased electric power, treatment chemicals and
11 waste disposal are examples of costs that tend to vary with the amount of
12 water consumed and are thus considered base costs. They are allocated to
13 the several customer classifications in direct proportion to the average daily
14 consumption of those classifications through the use of Factor 1. The
15 development of Factor 1 is shown in Schedule C.

16 Other source of supply, water treatment and transmission costs are
17 associated with meeting usage requirements in excess of the average,
18 generally to meet maximum day requirements. Costs of this nature were
19 allocated to customer classifications partially as base costs, proportional to
20 average daily consumption, partially as maximum day extra capacity costs, in
21 proportion to maximum day extra capacity, and, in the case of certain
22 pumping stations and transmission mains, partially as fire protection costs,
23 through the use of Factors 2 and 3. The development of the allocation
24 factors, referenced as Factors 2 and 3, is shown in Schedule C.

1 Costs associated with storage facilities and the capital costs of
2 distribution mains were allocated partly on the basis of average consumption
3 and partly on the basis of maximum hour extra demand, including the
4 demand for fire protection service, because these facilities are designed to
5 meet maximum hour and fire demand requirements. The development of the
6 factors, referenced as Factors 4 and 5, used for these allocations is shown in
7 Schedule C.

8 Fire demand costs were allocated to public and private fire protection
9 service in proportion to the relative potential demands on the system by public
10 fire hydrants and private service lines as presented in Schedule E.

11 Costs associated with pumping facilities and the operation and
12 maintenance of mains were allocated on combined bases of maximum day
13 and maximum hour extra capacity because these facilities serve both
14 functions. For pumping facilities, the relative weightings of Factor 2
15 (maximum day), Factor 3 (maximum day and fire) and Factor 4 (maximum
16 hour) were based on the horsepower of pumps serving maximum day,
17 maximum day and fire and maximum hour functions. The development of this
18 weighted factor is referenced as Factor 6.

19 For operation and maintenance of mains, the relative weightings of
20 Factor 3 (maximum day and fire) and Factor 4 (maximum hour) were based
21 on the footage of transmission and distribution mains. Generally, for cost
22 allocation purposes, mains larger than 10-inch were classified as serving a
23 transmission function and mains 10-inch and smaller were classified as
24 serving a distribution function. The development of this weighted factor is

1 referenced as Factor 7.

2 Costs associated with meters were allocated to customer
3 classifications in proportion to the relative unit costs of the sizes and
4 quantities of meters serving each classification. The development of the
5 factor for meters is referenced as Factor 9. Factor 10, Allocation of Services,
6 was developed in a similar manner as Factor 9, except that the relative unit
7 cost per foot by service size was used in order to weight the number of
8 services by classification. Costs associated with public fire hydrants were
9 assigned directly to the public fire protection class (Factor 8).

10 Costs for customer accounting, billing and collecting were allocated
11 on the basis of the number of customers for each classification, and costs for
12 meter reading were allocated on the basis of metered customers. The
13 development of these factors is referenced as Factor 13 and Factor 14.

14 Administrative and general costs were allocated on the basis of
15 allocated direct costs, excluding those costs such as purchased water, power,
16 chemicals and waste disposal, which require little administrative and general
17 expense. The development of the factor is referenced as Factor 15.

18 Cash working capital is allocated based on total operation and
19 maintenance expense. The development of the factor is referenced as Factor
20 15A.

21 Annual depreciation accruals were allocated on the basis of the
22 function of the facilities represented by the depreciation expense for each
23 depreciable plant account. The original cost less depreciation of utility plant
24 in service was similarly allocated for the purpose of developing factors,

1 referenced as Factor 18, for allocating items such as income taxes and
2 return. The development of Factor 18 is presented on the last three pages of
3 Schedule C.

4 Factors 15, 15A and 18, as well as Factors 11, 12, 16, 17 and 19, are
5 composite allocation factors. These factors are based on the result of
6 allocating other costs and are computed internally in the cost allocation
7 program. Refer to Schedule C for a description of the bases for each
8 composite allocation factor.

9 **13. Q. What was the source of the total cost of service data set forth in column
10 3 of Schedule B?**

11 A. The pro forma costs of service were furnished by the Company, and are set
12 forth in Company accounting exhibits and workpapers. The cost of service
13 by district used in my allocation studies reflects the revenue contribution
14 among districts as explained in Mr. William's testimony.

15 **14. Q. Refer to Schedule C, and explain the source of the system maximum
16 day and maximum hour ratios used in the development of factors
17 referenced as Factors 2, 3 and 4.**

18 A. The ratios were based on a review of historic Company data for each district.
19 Schedule D shows the experienced maximum day ratios for each district over
20 the last several years. The maximum hour ratios were estimated based on
21 actual data or the relationship of system maximum hour ratios compared to
22 system maximum day ratios for similar systems.

23 **15. Q. What factors were considered in estimating the maximum day extra
24 capacity and maximum hour extra capacity demands used for the**

1 **customer classifications in the development of Factors 2, 3 and 4?**

2 A. The estimated demands were based on judgment which considered field
3 studies of actual customer class demands conducted for other American
4 Water Companies, field observations of the service areas of the Company,
5 field studies of similar service areas in Pennsylvania, and generally-accepted
6 customer class maximum day and maximum hour demand ratios.

7 **16. Q. Please explain the allocation of small mains in certain districts.**

8 A. Factor 4, used to allocate distribution mains, was modified to exclude
9 consumption for certain large customers connected primarily to large mains,
10 commonly referred to as transmission mains, in Joplin, St. Joseph and St.
11 Louis Metro Area districts. This was done to recognize that certain industrial
12 and sales for resale customers are connected directly to the transmission
13 system and do not benefit from the smaller distribution mains.

14 **17. Q. How was this adjustment accomplished?**

15 A. In Joplin, five of the six largest industrial customers are connected to mains
16 12-inch and larger. The sixth customer is served from an 8-inch main, but is
17 located a short distance from 12- and 16-inch mains. The test year
18 consumption for these six customers was excluded from the industrial class
19 for the basis of developing Factor 4. In addition, all sales for resale
20 customers are served from the transmission system and therefore were
21 excluded from Factor 4.

22 In St. Joseph, the four largest industrial accounts and all sales for
23 resale accounts are served from mains 12-inch and larger. The test year
24 consumption for these customers was excluded in the development of Factor

1 4.

2 In the St. Louis Metro Area, all sales for resale customers (Rates B)
3 are served from the transmission system and therefore, were excluded from
4 Factor 4. For the industrial or Rate J classification, an analysis of the
5 customers was performed to determine the size main each Rate J customer
6 is served from. The analysis showed that out of 141 Rate J customers, 73
7 customers representing 54.2% of the Rate J consumption are connected to
8 mains 12-inch and larger. The remaining 68 customers with 45.8% of the
9 consumption are connected to mains smaller than 12-inch.

10 A further analysis of the 68 customers connected to small mains was
11 conducted to measure the length of distribution mains used to serve these
12 customers from the transmission system. This analysis showed that
13 approximately 130,000 feet of small mains are used from the transmission
14 system to the connection point of the 68 Rate J customers. The 130,000 feet
15 represents about 0.7% of the total 19.3 million feet of distribution mains. This
16 analysis clearly shows that although certain Rate J customers are connected
17 to smaller mains, the length of those mains are only a small fraction of the
18 total distribution main system. Therefore, based on this analysis, 10% of the
19 Rate J consumption was used in the development of Factor 4, to reflect that a
20 small part of the distribution mains are used by Rate J customers. This
21 results in a factor of 0.0066 for Rate J, which approximates the 0.7%.

22 **18. Q. Have you summarized the results of your cost allocation study?**

23 A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A for
24 each district. Column 2 sets forth the total allocated pro forma cost of service

1 as of June 30, 2009, for each customer classification identified in column 1.

2 Column 3 presents each customer classification's cost responsibility as a
3 percent of the total cost.

4 **19. Q. Have you compared these cost responsibilities with the proportionate**
5 **revenue under existing rates for each customer classification?**

6 A. Yes. A comparison of the allocated cost responsibilities and the percentage
7 revenue under existing rates for each district can be made by comparing
8 columns 3 and 5 of Schedule A. A similar comparison of the percentage cost
9 responsibilities (relative cost of service) and the percentage of pro forma
10 revenues (relative revenues) under proposed rates can be made by
11 comparing columns 3 and 7 of Schedule A.

12 13 **CUSTOMER RATE DESIGN**

14 **20. Q. What are the appropriate factors to be considered in the design of the**
15 **rate structure?**

16 A. In preparing a rate structure, one should consider the allocated costs of
17 service, the impact of changes from the present rate structure, the
18 understandability and ease of application of the rate structure, community and
19 social influences, and the value of service. General guidelines should be
20 developed with management to determine the extent to which each of these
21 criteria is to be incorporated in the rate structure to be designed, inasmuch as
22 the pricing of a commodity or service is a function of management.

23 **21. Q. Did management discuss rate design guidelines with you?**

24 A. Yes, they did. The guidelines were as follows: (1) Maintain district specific

1 pricing for each district's rate structure, taking into account a revenue
2 contribution for several small districts as discussed in Mr. William's testimony;
3 (2) Move toward a uniform customer charge across districts other than St.
4 Louis Metro and propose a low-income customer charge; (3) design
5 volumetric rates so that proposed revenues by customer classification move
6 toward or approximate the indicated cost of service in each district; (4) for
7 districts other than St. Louis Metro, use a one-block structure for the
8 residential class (except Parkville) and two- to four-block structures for non-
9 residential classes; and (5) determine the unit cost per public fire hydrant in
10 the St. Louis Metro Area so that public fire protection costs can be recovered
11 from each customer in a similar manner as the current practice in St. Louis
12 County.

13 **22. Q. Do you agree with these guidelines?**

14 A. Yes, I do.

15 **23. Q. Have you prepared proposed rate schedules for each classification and
16 each District?**

17 A. The Company has prepared Schedule CAS-14 which shows a comparison of
18 present and proposed rates for each district.

19 **24. Q. Please explain the proposed minimum charges.**

20 A. An analysis of the customer costs in each district was prepared to determine
21 the appropriate monthly minimum charges by meter size. For the seven
22 districts other than the St. Louis Metro Area, the pro forma customer costs for
23 a 5/8-inch meter ranged from \$20.43 to \$11.61 per month and averaged
24 \$15.35 per month. (See Schedule F for each district). Based on this

1 analysis, the 5/8-inch minimum charge was set at \$15.00 per month for each
2 of the seven districts representing increases/(decreases) ranging from (5%) in
3 Brunswick to 68% in St. Joseph District. The larger increases in certain
4 districts are a result of the existing rates being significantly below the
5 indicated cost of service. The increases to the larger sizes (3/4-inch through
6 12-inch meters) were based on the existing meter ratios by size to the 5/8-
7 inch charge.

8 For St. Louis Metro Area, the analysis of pro forma customer costs
9 resulted in a 5/8-inch meter customer cost of \$16.70 per quarter. Since these
10 unit costs would represent a 36% increase over existing rates, the minimum
11 charges were set at \$11.40 per month and \$16.70 per quarter. Minimum
12 charges for the larger meter sizes were developed in a similar manner as in
13 the other districts.

14 **25. Q. Please explain the 5/8" low income charge.**

15 A. The Company requested the implementation of a low income customer
16 charge for residential customers with a 5/8" meter. This rate was set at 65%
17 of the full customer charge for a residential 5/8" meter.

18 **26. Q. Please explain the volumetric charges.**

19 A. Generally, for the seven districts other than St. Louis Metro and Parkville
20 Water, a one-block uniform volumetric rate is maintained for the residential
21 classification in each district.

22 For non-residential customers, a two, three or four block structure is
23 proposed with the first block rate that is the same for each of the non-
24 residential classes and the remaining block rates designed to move revenues

1 toward or equal to the indicated cost of service by classification within each
2 district.

3 In St. Louis Metro Area, the same single-block rate structure for Rates
4 A through J is proposed with increases in each rate according to cost of
5 service. For Parkville, a uniform, declining block rate structure was
6 maintained for all classifications.

7 **27. Q. Please explain private fire charges.**

8 A. In most districts, the existing private fire revenues exceed the indicated cost
9 of service. Therefore, no changes to the private fire line rates are proposed
10 at this time with the exception of Warrensburg and St. Joseph Districts.
11 Private fire rates in those districts were increased in order to equal cost of
12 service.

13 **28. Q. Please explain the public fire hydrant charges.**

14 A. The cost of service for public fire protection was established only for the St.
15 Louis Metro Area. The annual unit cost was determined by dividing the cost
16 of service by the number of public hydrants for the combined service areas.
17 The public fire hydrant rates will be charged on a per customer basis in each
18 area as a separate charge in a similar manner as the existing practice in St.
19 Louis County. Public fire costs in the other districts were reallocated to the
20 general service classification to be recovered through general service rates.

21 **29. Q. Has the Company prepared proof of revenue schedules under present
22 and proposed rates?**

23 A. Yes. The proof of revenue shows that the application of the present and
24 proposed rates to the billing determinants or bill analysis produce the pro

1 forma present and proposed revenue and proves that the proposed rates filed
2 in the proposed tariffs recover the requested revenue requirements.

3 Schedule CAS-13 and 14, sponsored by Mr. Petry, sets forth the proof
4 of revenues from the application of present and proposed rates to the
5 customer consumption analysis. The revenues from these exhibits are
6 brought forward to Schedule A, columns 4 and 6, for each district.

7 **30. Q. Does this complete your testimony at this time?**

8 A. Yes, it does.

LIST OF CASES IN WHICH PAUL R. HERBERT TESTIFIED

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
1.	1983	Pa. PUC	R-832399	T. W. Phillips Gas and Oil Co.	Pro Forma Revenues
2.	1989	Pa. PUC	R-891208	Pennsylvania-American Water Company	Bill Analysis and Rate Application
3.	1991	PSC of W. Va.	91-106-W-MA	Clarksburg Water Board	Revenue Requirements (Rule 42)
4.	1992	Pa. PUC	R-922276	North Penn Gas Company	Cash Working Capital
5.	1992	NJ BPU	WR92050532J	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
6.	1994	Pa. PUC	R-943053	The York Water Company	Cost Allocation and Rate Design
7.	1994	Pa. PUC	R-943124	City of Bethlehem	Revenue Requirements, Cost Allocation, Rate Design and Cash Working Capital
8.	1994	Pa. PUC	R-943177	Roaring Creek Water Company	Cash Working Capital
9.	1994	Pa. PUC	R-943245	North Penn Gas Company	Cash Working Capital
10.	1994	NJ BPU	WR94070325	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
11.	1995	Pa. PUC	R-953300	Citizens Utilities Water Company of Pennsylvania	Cost Allocation and Rate Design
12.	1995	Pa. PUC	R-953378	Apollo Gas Company	Revenue Requirements and Rate Design
13.	1995	Pa. PUC	R-953379	Carnegie Natural Gas Company	Revenue Requirements and Rate Design
14.	1996	Pa. PUC	R-963619	The York Water Company	Cost Allocation and Rate Design
15.	1997	Pa. PUC	R-973972	Consumers Pennsylvania Water Company - Shenango Valley Division	Cash Working Capital
16.	1998	Ohio PUC	98-178-WS-AIR	Citizens Utilities Company of Ohio	Water and Wastewater Cost Allocation and Rate Design
17.	1998	Pa. PUC	R-984375	City of Bethlehem - Bureau of Water	Revenue Requirement, Cost Allocation and Rate Design
18.	1999	Pa. PUC	R-994605	The York Water Company	Cost Allocation and Rate Design
19.	1999	Pa. PUC	R-994868	Philadelphia Suburban Water Company	Cost Allocation and Rate Design
20.	1999	PSC of W.Va.	99-1570-W-MA	Clarksburg Water Board	Revenue Requirements (Rule 42) Cost Allocation and Rate Design
21.	2000	Ky. PSC	2000-120	Kentucky-American Water Company	Cost Allocation and Rate Design
22.	2000	Pa. PUC	R-00005277	PPL Gas Utilities	Cash Working Capital
23.	2000	NJ BPU	WR00080575	Atlantic City Sewerage Company	Cost Allocation and Rate Design
24.	2001	Ia. St Util Bd	RPU-01-4	Iowa-American Water Company	Cost Allocation and Rate Design
25.	2001	Va. St. Corp	PUE010312	Virginia-American Water Company	Cost Allocation and Rate Design
26.	2001	WV PSC	01-0326-W-42T	West-Virginia American Water Company	Cost Allocation And Rate Design
27.	2001	Pa. PUC	R-016114	City of Lancaster	Tapping Fee Study
28.	2001	Pa. PUC	R-016236	The York Water Company	Cost Allocation and Rate Design
29.	2001	Pa. PUC	R-016339	Pennsylvania-American Water Company	Cost Allocation and Rate Design
30.	2001	Pa. PUC	R-016750	Philadelphia Suburban Water Company	Cost Allocation and Rate Design
31.	2002	Va. St. Corp Cm	PUE-2002-00375	Virginia-American Water Company	Cost Allocation and Rate Design
32.	2003	Pa. PUC	R-027975	The York Water Company	Cost Allocation and Rate Design
33.	2003	Tn Reg. Auth	03-	Tennessee-American Water Company	Cost Allocation and Rate Design
34.	2003	Pa. PUC	R-038304	Pennsylvania-American Water Company	Cost Allocation and Rate Design
35.	2003	NJ BPU	WR03070511	New Jersey-American Water Company	Cost Allocation and Rate Design
36.	2003	Mo. PSC	WR-2003-0500	Missouri-American Water Company	Cost Allocation and Rate Design
37.	2004	Va. St. Corp Cm	PUE-200 -	Virginia-American Water Company	Cost Allocation and Rate Design
38.	2004	Pa. PUC	R-038805	Pennsylvania Suburban Water Company	Cost Allocation and Rate Design
39.	2004	Pa. PUC	R-049165	The York Water Company	Cost Allocation and Rate Design
40.	2004	NJ BPU	WRO4091064	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
41.	2005	WV PSC	04-1024-S-MA	Morgantown Utility Board	Cost Allocation and Rate Design
42.	2005	WV PSC	04-1025-W-MA	Morgantown Utility Board	Cost Allocation and Rate Design
43.	2005	Pa. PUC	R-051030	Aqua Pennsylvania, Inc.	Cost Allocation and Rate Design
44.	2006	Pa. PUC	R-051178	T. W. Phillips Gas and Oil Co.	Cost Allocation and Rate Design
45.	2006	Pa. PUC	R-061322	The York Water Company	Cost Allocation and Rate Design

LIST OF CASES IN WHICH PAUL R. HERBERT TESTIFIED

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
46.	2006	NJ BPU	WR-06030257	New Jersey American Water Company	Cost Allocation and Rate Design
47.	2006	Pa. PUC	R-061398	PPL Gas Utilities, Inc.	Cost Allocation and Rate Design
48.	2006	NM PRC	06-00208-UT	New Mexico American Water Company	Cost Allocation and Rate Design
49.	2006	Tn Reg Auth	06-00290	Tennessee American Water Company	Cost Allocation and Rate Design
50.	2007	Ca. PUC	U-339-W	Suburban Water Systems	Water Conservation Rate Design
51.	2007	Ca. PUC	U-168-W	San Jose Water Company	Water Conservation Rate Design
52.	2007	Pa. PUC	R-00072229	Pennsylvania American Water Company	Cost Allocation and Rate Design
53.	2007	Ky. PSC	2007-00143	Kentucky American Water Company	Cost Allocation and Rate Design
54.	2007	Mo. PSC	WR-2007-0216	Missouri American Water Company	Cost Allocation and Rate Design
55.	2007	Oh. PUC	07-1112-WS-AIR	Ohio American Water Company	Cost Allocation and Rate Design
56.	2007	Il. CC	07-0507	Illinois American Water Company	Customer Class Demand Study
57.	2007	Pa. PUC	R-00072711	Aqua Pennsylvania, Inc.	Cost Allocation and Rate Design
58.	2007	NJ BPU	WR07110866	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
59.	2007	Pa. PUC	R-00072492	City of Bethlehem – Bureau of Water	Revenue Requirements, Cost Allo
60.	2007	WV PSC	07-0541-W-MA	Clarksburg Water Board	Cost Allocation and Rate Design
61.	2007	WV PSC	07-0998-W-42T	West Virginia American Water Company	Cost Allocation and Rate Design
62.	2008	NJ BPU	WR08010020	New Jersey American Water Company	Cost Allocation and Rate Design
63.	2008	Va St Corp Com		Virginia American Water Company	Cost Allocation and Rate Design
64.	2008	Tn. Reg. Auth.	08-00039	Tennessee American Water Company	Cost Allocation and Rate Design
65.	2008	Mo PSC	WR-2008-0311	Missouri American Water Company	Cost Allocation and Rate Design
66.	2008	De PSC	08-96	Artesian Water Company, Inc.	Cost Allocation and Rate Design
67.	2008	Pa PUC	R-2008-2032689	Penna. American Water Co. – Coatesville Wastewater	Cost Allocation and Rate Design
68.	2008	AZ Corp. Com.	W-01303A-08-0227 SW-01303A-08-0227	Arizona American Water Co. - Water - Wastewater	Cost Allocation and Rate Design
69.	2008	Pa PUC	R-2008-2023067	The York Water Company	Cost Allocation and Rate Design
70.	2008	WV PSC	08-0900-W-42T	West Virginia American Water Company	Cost Allocation and Rate Design
71.	2008	Ky PSC	2008-00250	Frankfort Electric and Water Plant Board	Cost Allocation and Rate Design
72.	2008	Ky PSC	2008-00427	Kentucky American Water Company	Cost Allocation and Rate Design
73.	2009	PaPUC	2008-2079660	UGI – Penn Natural Gas	Cost of Service Allocation
74.	2009	PaPUC	2008-2079675	UGI – Central Penn Gas	Cost of Service Allocation
75.	2009	PaPUC	2009-2097323	Pennsylvania American Water Co.	Cost Allocation and Rate Design
76.	2009	Ia St Util Bd	RPU-09-	Iowa-American Water Company	Cost Allocation and Rate Design
77.	2009	Il CC		Illinois-American Water Company	Cost Allocation and Rate Design
78.	2009	Oh PUC	09-391-WS-AIR	Ohio-American Water Company	Cost Allocation and Rate Design