

RESPONSE TO PSC

*PSC CASE NO. 2008-00250*

ITEM 1

Frankfort Electric and Water Plant Board  
Response to PSC Order Dated: 7-2-2008  
Case No. 2008-00250

ITEM 1: Direct Testimony

Response: Ex. 1 – Warner J. Caines, General Manager

Ex. 2 – Paul Herbert, Gannett Fleming

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COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF THE FRANKFORT )  
ELECTRIC AND WATER PLANT BOARD ) CASE NO. 2008-00250  
FOR AN ADJUSTMENT OF WHOLESALE RATES )

**TESTIMONY OF WARNER J. CAINES**  
**GENERAL MANAGER OF FRANKFORT ELECTRIC**  
**AND WATER PLANT BOARD**

Q 1 Please state your name.

A. Warner J. Caines

Q 2 Where are you employed?

A. I am employed as General Manager of the Frankfort Electric and Water Plant Board. My address is 317 W. Second Street, Frankfort, KY 40601. I have been employed as General Manager of the Plant Board since April 1985.

Q 3 Explain briefly the operation of the FEWPB.

A. The Board is an independent, municipally owned utility. There are three divisions- electric, cable/telecommunications and water. Each division is operated as a separate unit and the rates for each unit are based on its revenues and expenses.

35 Q 4 As part of your duties were you responsible for the determination that a rate  
36 increase for the wholesale water customers was necessary?

37 A. Yes. In an effort to determine whether the rates were generating sufficient  
38 revenue and whether the customer classes were paying the appropriate share of  
39 the revenue requirements, the Plant Board contacted Gannett Fleming to conduct  
40 a cost-of-service study for the purpose of determining whether a rate adjustment  
41 was necessary and whether a modification of the rate design was appropriate. In  
42 February, 2008 the cost-of-service study was presented to the Board indicating  
43 that a rate increase was necessary.

44 Q 5 What did the cost-of-service study indicate that the rate for the wholesale  
45 customers should be?

46 A. The wholesale rate according to the cost-of-service study should be \$1.822 per  
47 1,000 gallons. The present rate is \$1.539 per 1,000 gallons.

48 Q 6 How many wholesale water customers does the Plant Board have and who are  
49 they?

50 A. The Plant Board has seven (7) wholesale water customers: The City of  
51 Georgetown Municipal Water System, Elkhorn Water District, Peaks Mill Water  
52 District, Farmdale Water District, North Shelby Water District, U.S. 60 Water  
53 District and South Anderson Water District.

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58 Q 7 Has notice been given to the water districts affected by this rate increase?

59 A. Yes. On March 31, 2008 letters were sent to all of the water districts affected by  
60 the rate increase notifying them of a public hearing which was to be held on April  
61 15, 2008. On April 15, 2008, a public hearing was held. On May 27, 2008, the  
62 Board authorized the proposed rate increase. On June 6, 2008, the proposed  
63 rates were submitted to the Public Service Commission and notice of the filing of  
64 those proposed rates was given to each of the water districts.

65 Q 8 What rate is the Plant Board proposing for the water districts?

66 A. \$1.822 per 1,000 gallons.

67 Q 9 In general terms, why is the additional revenue reflected in the water districts'  
68 increased rate needed by the Plant Board?

69 A. Several factors have prompted the need for a rate increase. Notably, the results  
70 of the cost of service allocation are consistent with the cost of providing service to  
71 each customer class. Using class cost of service as the guideline, the proposed  
72 rate design continues the move of each class to its relative cost of service.

73 Q 10 Are the costs discussed directly related to providing service to the wholesale  
74 customers?

75 A. Yes. The cost of service allocation distributes costs to the customer classifications  
76 in proportion to each classification's use of the facilities, commodities and  
77 services.

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79 Q 11 Based upon your knowledge of the operations of the Plant Board, are water  
80 revenues used to offset expenses for the other divisions of the Plant Board, that is, the electric  
81 department and the cable department?

82 A. No.

83 Q 12 Are water rates ever increased to offset losses in the other divisions?

84 A. No. The rates of the water division are based solely upon the revenues and  
85 expenses of the water department and have no relationship whatsoever to the  
86 revenues and expenses of either the electric or the cable division.

87 Q 13 Based on your familiarity with the financial condition of the water department, is  
88 this rate increase necessary?

89 A. Yes. The cost of service allocation demonstrates that the rate increase is  
90 necessary.

91 Q 14 Does this conclude your testimony?

92 A. Yes.

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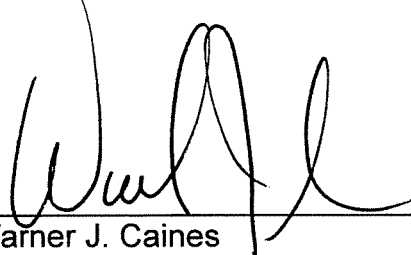
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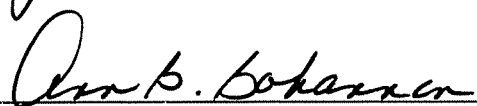
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The Affiant, Warner J. Caines, after being duly sworn, states that the foregoing answers are true and accurate to the best of his abilities.

FURTHER THE AFFIANT SAITH NOT.

  
\_\_\_\_\_  
Warner J. Caines

Subscribed and sworn to before me by Warner J. Caines this 30 day of July, 2008.

  
\_\_\_\_\_  
Notary Public

My commission expires: 11-29-08

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BEFORE THE  
KENTUCKY PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF  
PAUL R. HERBERT  
ON BEHALF OF FRANKFORT ELECTRIC AND WATER PLANT BOARD  
CASE NO. – 2008-00250

CONCERNING  
WATER UTILITY OPERATIONS  
COST OF SERVICE ALLOCATION  
AND  
CUSTOMER RATE DESIGN

AUGUST 2008



43 BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

44 RE: FRANKFORT ELECTRIC AND WATER PLANT BOARD

45 CASE NO. 2008-00250

46 DIRECT TESTIMONY OF PAUL R. HERBERT

47 Q. Please state your name and address.

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

50 Q. By whom are you employed?

51 A. I am employed by Gannett Fleming, Inc.

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

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

59 Q. Have you presented testimony in rate proceedings before a regulatory  
60 agency?

61 A. Yes. I have testified before the Pennsylvania Public Utility Commission, the  
62 New Jersey Board of Public Utilities, the Public Utilities Commission of Ohio,  
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69 the Public Service Commission of West Virginia, the Kentucky Public Service  
70 Commission, the Iowa State Utilities Board, the Virginia State Corporation  
71 Commission, the Tennessee Regulatory Authority, the California Public  
72 Utilities Commission, New Mexico Public Regulation Commission and the  
73 Missouri Public Service Commission concerning revenue requirements, cost  
74 of service allocation, rate design and cash working capital claims. A list of  
75 the cases in which I have testified is provided at the end of my direct  
76 testimony.

77 Q. What is your educational background?

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

80 Q. Would you please describe your professional affiliations?

81 A. I am a member of the American Water Works Association and served as a  
82 member of the Management Committee for the Pennsylvania Section. I am  
83 also a member of the Pennsylvania Municipal Authorities Association. In  
84 1998, I became a member of the National Association of Water Companies  
85 as well as a member of its Rates and Revenue Committee.

86 Q. Briefly describe your work experience.

87 A. I joined the Valuation Division of Gannett Fleming Corddry and Carpenter,  
88 Inc., predecessor to Gannett Fleming, Inc., in September 1977, as a Junior  
89 Rate Analyst. Since then, I advanced through several positions and was  
90 assigned the position of Manager of Rate Studies on July 1, 1990. On June  
91 1, 1994, I was promoted to Vice President of the Valuation and Rate Division  
92 and on July 1, 2007, I was promoted to my current position as President.

93           While attending Penn State, I was employed during the summers of  
94 1972, 1973 and 1974 by the United Telephone System - Eastern Group in its  
95 accounting department. Upon graduation from college in 1975, I was  
96 employed by Herbert Associates, Inc., Consulting Engineers (now Herbert  
97 Rowland and Grubic, Inc.), as a field office manager until September 1977.

98 Q. Have you previously prepared a cost of service study for a case before the  
99 Commission?

100 A. Yes, I have. I have prepared cost of service studies for Kentucky American  
101 Water Company in Case Nos. 2000-120 and 2007-00143. I have also  
102 included a list of cost of service studies that I have prepared for other utilities,  
103 located at the end of my direct testimony.

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

105 A. The purpose of my testimony is to explain Frankfort Electric and Water Plant  
106 Board's (FEWPB) cost of service allocation study for the regulated  
107 wholesale water utility operations and proposed regulated wholesale rate  
108 design.

#### 109                                   COST OF SERVICE ALLOCATION

110 Q. Briefly describe the purpose of your cost allocation study.

111 A. The purpose of the study was to allocate the total water cost of service,  
112 which is the total revenue requirement, to the several customer classifica-  
113 tions. In the study, the total costs were allocated to the residential,  
114 commercial, public authorities, sales for resale non-water producers and  
115 sales for resale water producers, private fire protection and public fire  
116 protection classifications in accordance with generally accepted principles

117 and procedures. The cost of service allocation results in indications of the  
118 relative cost responsibilities of each class of customers. The allocated cost  
119 of service is one of several criteria appropriate for consideration in designing  
120 customer rates to produce the required revenues. The results of my  
121 allocation of the pro forma cost of service as of June 30, 2007, and  
122 proposed customer rates to produce the pro forma revenue requirement as  
123 of that date are presented in the study.

124 Q. Please describe the method of cost allocation that was used in your study.

125 A. The base-extra capacity method, as described in 2000 and prior Water  
126 Rates Manuals published by the American Water Works Association  
127 (AWWA), was used to allocate the pro forma costs. Base-extra capacity is a  
128 recognized method for allocating the cost of providing water service to  
129 customer classifications in proportion to the classifications' use of the  
130 commodity, facilities, and services. It is generally accepted as a sound  
131 method for allocating the cost of water service and was used by the  
132 Company in the Company's previous studies.

133 Q. Please describe the procedure followed in the cost allocation study.

134 A. Each identified classification of cost in the pro forma cost of service was  
135 allocated to the customer classifications through the use of appropriate  
136 factors. These allocations are presented in Schedule B on pages 8 through  
137 11. The items of cost, which include operation and maintenance expenses,  
138 taxes, debt service and capital projects, are identified in column 1 of  
139 Schedule B. The cost of each item, shown in column 3, is allocated to the  
140 several customer classifications based on allocation factors referenced in

141 column 2. The development of the allocation factors is presented in  
142 Schedule C. I will use some of the larger cost items to illustrate the princi-  
143 ples and considerations used in the cost allocation methodology. Purchased  
144 electric power and treatment chemicals are examples of costs that tend to  
145 vary with the amount of water consumed and are thus considered base  
146 costs. They are allocated to the several customer classifications in direct  
147 proportion to the average daily consumption of those classifications through  
148 the use of Factor 1. The development of Factor 1 is shown in Schedule C  
149 on page 12.

150 Other source of supply, water treatment and transmission costs are  
151 associated with meeting usage requirements in excess of the average,  
152 generally to meet maximum day requirements. Costs of this nature were  
153 allocated to customer classifications partially as base costs, proportional to  
154 average daily consumption, partially as maximum day extra capacity costs,  
155 in proportion to maximum day extra capacity, and, in the case of certain  
156 pumping stations and transmission mains, partially as fire protection costs,  
157 through the use of Factors 2 and 3. The development of the allocation  
158 factors, referenced as Factors 2 and 3, is shown in Schedule C, on pages 12  
159 through 15.

160 Costs associated with storage facilities and the capital costs of  
161 distribution mains were allocated partly on the basis of average consumption  
162 and partly on the basis of maximum hour extra demand, including the  
163 demand for fire protection service, because these facilities are designed to  
164 meet maximum hour and fire demand requirements. The development of

165 the factors, referenced as Factors 4 and 5, used for these allocations is  
166 shown in Schedule C, on pages 16 through 19.

167 Factor 4, used to allocate distribution mains, is based on the same  
168 volumes used in Factors 1 through 3. Factor 5, Allocation of Storage  
169 Facilities, uses the same basic methodology as Factor 4, although the fire  
170 demand weighting is based on the storage capacity for fire service as  
171 compared to the total storage capacity.

172 Fire demand costs were allocated to public and private fire protection  
173 service in proportion to the relative potential demands on the system by  
174 public fire hydrants and private service lines as presented in Schedule C on  
175 page 31.

176 Costs associated with pumping facilities and the operation and  
177 maintenance of mains were allocated on combined bases of maximum day  
178 and maximum hour extra capacity because these facilities serve both  
179 functions. For these costs, the relative weightings of Factor 3 (maximum day  
180 and fire) and Factor 4 (maximum hour) were based on the footage of  
181 transmission and distribution mains. For cost allocation purposes, mains  
182 larger than 10-inch were classified as serving a transmission function and  
183 mains 10-inch and smaller were classified as serving a distribution function.  
184 The development of this weighted factor, referenced as Factor 6, is  
185 presented on page 20.

186 Costs associated with meters were allocated to customer  
187 classifications in proportion to the capacity requirements of the sizes and  
188 quantities of meters serving each classification. The development of the

189 factor for meters, referenced as Factor 8, is presented on page 21. Factor 9,  
190 Allocation of Services, was developed in a similar manner as Factor 8,  
191 except that the relative unit cost per foot by service size was used in order to  
192 weight the number of services by classification. Costs associated with public  
193 fire hydrants were assigned directly to the public fire protection class (Factor  
194 7), and costs associated with sales for resale non-water producers were  
195 assigned directly to the sales for resale non-water producers class (Factor  
196 11).

197 Costs for customer accounting, billing and collecting were allocated  
198 on the basis of the number of customers for each classification, and costs  
199 for meter reading were allocated on the basis of metered customers. The  
200 development of these factors, referenced as Factor 12 and Factor 13, is  
201 presented on page 26.

202 Administrative and general costs were allocated on the basis of  
203 allocated direct costs, excluding those costs such as purchased power and  
204 chemicals and waste disposal which require little administrative and general  
205 expense. The development of factors for this allocation, referenced as  
206 Factor 14, is presented on page 27.

207 The original cost less depreciation of utility plant in service was  
208 allocated on the basis of the function of the facilities for the purpose of  
209 developing Factors 16 and 17. Factor 17 was used to allocate items such as  
210 taxes, debt service and capital projects. The development of Factors 16 and  
211 17 is presented on pages 32 through 35.

212 Factors 10, 14, 15 and 18, are composite allocation factors. These  
213 factors are based on the result of allocating other costs and are computed  
214 internally in the cost allocation program. Refer to Schedule C for a  
215 description of the bases for each composite allocation factor.

216 Q. What was the source of the total cost of service data set forth in column 3 of  
217 Schedule B?

218 A. The pro forma costs of service were furnished by the FEWPB, and are set  
219 forth in various FEWPB exhibits.

220 Q. Refer to Schedule B, pages 13 and 17, and explain the source of the system  
221 maximum day and maximum hour ratios used in the development of factors  
222 referenced as Factors 2, 3 and 4.

223 A. The ratios were based on a review of historic FEWPB data. The maximum  
224 day ratio of 1.80 times the average day approximates the ratio of maximum  
225 daily send-out experienced by the FEWPB in the last nine years. The  
226 maximum hour ratio of 2.5 times the average hour was estimated based on  
227 the relationship of system maximum hour ratios compared to system  
228 maximum day ratios for other similar systems.

229 Q. What factors were considered in estimating the maximum day extra capacity  
230 and maximum hour extra capacity demands used for the customer  
231 classifications in the development of Factors 2, 3 and 4?

232 A. The estimated demands were based on judgment which considered field  
233 studies of actual customer class demands conducted for other utilities, field  
234 studies of similar service areas, and generally-accepted customer class  
235 maximum day and maximum hour demand ratios.



236 Q. Have you summarized the results of your cost allocation study?

237 A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A on  
238 page 6. Column 2 sets forth the total allocated pro forma cost of service as  
239 of June 30, 2007, for each customer classification identified in column 1.  
240 Column 3 presents each customer classification's cost responsibility as a  
241 percent of the total cost.

242 Q. Have you compared these cost responsibilities with the proportionate  
243 revenue under existing rates for each customer classification?

244 A. Yes. A comparison of the allocated cost responsibilities and the percentage  
245 revenue under existing rates can be made by comparing columns 3 and 5 of  
246 Schedule A. A similar comparison of the percentage cost responsibilities  
247 (relative cost of service) and the percentage of pro forma revenues (relative  
248 revenues) under proposed rates can be made by comparing columns 3 and  
249 7 of Schedule A .

250 **CUSTOMER RATE DESIGN**

251 Q. What are the appropriate factors to be considered in the design of the rate  
252 structure?

253 A. In preparing a rate structure, one should consider the allocated costs of  
254 service, the impact of radical changes from the present rate structure, the  
255 understandability and ease of application of the rate structure, community  
256 and social influences, and the value of service. General guidelines should  
257 be developed with management to determine the extent to which each of  
258 these criteria is to be incorporated in the rate structure to be designed,

259 inasmuch as the pricing of a commodity or service is a function of  
260 management.

261 Q. Did management discuss rate design guidelines with you?

262 A. Yes, they did. The guidelines were to increase rates to move toward the  
263 cost of service for each customer classification.

264 Q. Does the proposed rate design follow these guidelines?

265 A. Yes, it does. The revenues under proposed rates reflect increases by class  
266 moving toward the cost of service, without creating radical changes in the  
267 rate structure.

268 Q. Have you prepared comparisons of present and proposed rates for each  
269 classification?

270 A. Yes. Schedule D on page 33 of the cost allocation study presents  
271 comparisons of the present and proposed rates.

272 Q. What rate does your study indicate should be charged to the wholesale  
273 customers?

274 A. \$1.822 per 1000 gallons for purchases.

275 Q. Does this rate take into account facilities used to serve the wholesale  
276 customer class?

277 A. Yes.

278 Q. Based upon your experience, is the method used in preparing the cost-of-  
279 service study for the FEWPB a generally-accepted method in the utility  
280 industry?

281 A. Yes.

282 Q. Is it your opinion that the rate produced by this study is reasonable?

283 A. Yes.

284 Q. Does this conclude your direct testimony?

285 A. Yes, it does.

286 The Affiant, Paul R. Herbert after being duly sworn, states that  
287 the foregoing answers are true and accurate to the best of his abilities.

288 FURTHER THE AFFIANT SAITH NOT.

289 Paul R. Herbert  
290 Paul R. Herbert  
291

292 Subscribed and sworn to before me by Paul R. Herbert this  
293 29th day of July, 2008.  
294  
295  
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297 [Signature]  
298 Notary Public  
299

February 20, 2011  
My commission expires:

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

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
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

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
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
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 Alloc.
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

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
68.	2008	AZ Corp. Com.	W-01303A-08-0227 SW-01303A-08-227	Arizona American Water Company	Cost Allocation and Rate Design
69.	2008	Pa PUC	R-2008-2023067	The York Water Company	Cost Allocation and Rate Design

LIST OF COST OF SERVICE STUDIES WHICH PAUL R. HERBERT PREPARED

<u>Year</u>	<u>Client/Utility</u>	<u>Type of Service</u>	<u>Subject</u>
1992	The Atlantic City Sewerage Company	Sewer	Cost Allocation and Rate Design
1994	The York Water Company	Water	Cost Allocation and Rate Design
1994	City of Bethlehem	Sewer	Revenue Requirements, Cost Allocation, Rate Design and Cash Working Capital
1994	Roaring Creek Water Company	Water	Cash Working Capital
1994	North Penn Gas Company	Gas	Cash Working Capital
1994	The Atlantic City Sewerage Company	Sewer	Cost Allocation and Rate Design
1995	Citizens Utilities Water Company of Pennsylvania	Water	Cost Allocation and Rate Design
1995	City of Lebanon Authority	Sewer & Water	Cost Allocation and Rate Design
1996	The York Water Company	Water	Cost Allocation and Rate Design
1998	Citizens Utilities Company of Ohio	Sewer & Water	Water and Wastewater Cost Allocation and Rate Design
1998	City of Bethlehem - Bureau of Water	Water	Revenue Requirement, Cost Allocation and Rate Design
1999	The York Water Company	Water	Cost Allocation and Rate Design
1999	Philadelphia Suburban Water Company	Water	Cost Allocation and Rate Design
1999	Clarksburg Water Board	Water	Revenue Requirements (Rule 42), Cost Allocation and Rate Design
1999	Chester Water Authority	Water	Cost Allocation and Rate Design
2000	Atlantic City Sewerage Company	Sewer	Cost Allocation and Rate Design
2001	City of Lebanon Authority	Sewer & Water	Cost Allocation and Rate Design
2001	Iowa-American Water Company	Water	Cost Allocation and Rate Design
2001	Virginia-American Water Company	Water	Cost Allocation and Rate Design
2001	West-Virginia American Water Company	Water	Cost Allocation and Rate Design
2001	The York Water Company	Water	Cost Allocation and Rate Design
2001	Pennsylvania-American Water Company	Water	Cost Allocation and Rate Design
2001	Philadelphia Suburban Water Company	Water	Cost Allocation and Rate Design
2002	Virginia-American Water Company	Water	Cost Allocation and Rate Design
2002	Chester Water Authority	Water	Cost Allocation and Rate Design
2002	The Borough of Ridgway	Sewer & Water	Cost Allocation and Rate Design
2002	Schuylkill County Municipal Authority	Water	Cost Allocation and Rate Design
2002	Northampton Borough Municipal Authority	Water	Cost Allocation and Rate Design
2003	Missouri-American Water Company	Water	Cost Allocation and Rate Design
2004	Virginia-American Water Company	Water	Cost Allocation and Rate Design
2004	The York Water Company	Water	Cost Allocation and Rate Design

LIST OF COST OF SERVICE STUDIES WHICH PAUL R. HERBERT PREPARED

<u>Year</u>	<u>Client/Utility</u>	<u>Type of Service</u>	<u>Subject</u>
2004	The Atlantic City Sewerage Company	Sewer	Cost Allocation and Rate Design
2004	The Borough of Ridgway	Sewer & Water	Cost Allocation and Rate Design
2005	Morgantown Utility Board	Sewer & Water	Cost Allocation and Rate Design
2005	Aqua Pennsylvania, Inc.	Water	Cost Allocation and Rate Design
2005	Northampton Borough Municipal Authority	Water	Cost Allocation and Rate Design
2006	The York Water Company	Water	Cost Allocation and Rate Design
2006	New Jersey American Water Company	Water	Cost Allocation and Rate Design
2006	PPL Gas Utilities, Inc.	Gas	Cost Allocation and Rate Design
2006	Tennessee American Water Company	Water	Cost Allocation and Rate Design
2006	The Borough of Ridgway	Sewer & Water	Cost Allocation and Rate Design
2007	San Jose Water Company	Water	Water Conservation Rate Design
2007	Pennsylvania American Water Company	Water	Cost Allocation and Rate Design
2007	Kentucky American Water Company	Water	Cost Allocation and Rate Design
2007	Missouri American Water Company	Water	Cost Allocation and Rate Design
2007	Ohio American Water Company	Sewer & Water	Cost Allocation and Rate Design
2007	Illinois American Water Company	Water	Customer Class Demand Study
2007	Aqua Pennsylvania, Inc.	Water	Cost Allocation and Rate Design
2007	The Atlantic City Sewerage Company	Sewer	Cost Allocation and Rate Design
2007	City of Bethlehem – Bureau of Water	Water	Revenue Requirements, Cost Alloc.
2007	Clarksburg Water Board	Water	Cost Allocation and Rate Design
2007	West Virginia American Water Company	Water	Cost Allocation and Rate Design
2007	Chester Water Authority	Water	Cost Allocation and Rate Design
2008	Virginia American Water Company	Water	Cost Allocation and Rate Design
2008	Tennessee American Water Company	Water	Cost Allocation and Rate Design
2008	Missouri American Water Company	Water	Cost Allocation and Rate Design
2008	Artesian Water Company, Inc.	Water	Cost Allocation and Rate Design
2008	Penna. American Water Co. – Coatesville Wastewater	Sewer	Cost Allocation and Rate Design
2008	Arizona American Water Company	Water	Cost Allocation and Rate Design
2008	The York Water Company	Water	Cost Allocation and Rate Design