

ILLINOIS COMMERCE COMMISSION

IAWC EXHIBIT NO. 11.00

DIRECT TESTIMONY OF

PAUL R. HERBERT

ILLINOIS-AMERICAN WATER COMPANY

I.	WITNESS INTRODUCTION AND QUALIFICATIONS AND EXPERIENCE	1
II.	EXPLANATION OF IAWC EXHIBIT NO. 11.01	2
III.	SUMMARY OF RESULTS.....	5

1 **I. WITNESS INTRODUCTION AND QUALIFICATIONS AND EXPERIENCE**

2 **Q1. Please state your name and address.**

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

5 **Q2. By whom are you employed?**

6 **A.** I am employed by Gannett Fleming, Inc.

7 **Q3. Please describe your position with Gannett Fleming, Inc., and briefly state**
8 **your general duties and responsibilities.**

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

14 **Q4. Have you presented testimony in rate proceedings before a regulatory**
15 **agency?**

16 **A.** Yes. I have testified before the Pennsylvania Public Utility Commission, the New
17 Jersey Board of Public Utilities, the Public Utilities Commission of Ohio, the
18 Public Service Commission of West Virginia, the Kentucky Public Service
19 Commission, the Iowa State Utilities Board, the Virginia State Corporation
20 Commission, the Tennessee Regulatory Authority, the California Public Utilities
21 Commission, New Mexico Public Regulation Commission and the Missouri Public
22 Service Commission concerning revenue requirements, cost of service
23 allocation, rate design and cash working capital claims.

24 A list of the cases in which I have testified is provided at the end of my
25 direct testimony.

26 **Q5. What is your educational background?**

27 **A.** I have a Bachelor of Science Degree in Finance from the Pennsylvania State
28 University, University Park, Pennsylvania.

29 **Q6. Would you please describe your professional affiliations?**

30 **A.** I am a member of the American Water Works Association and serve as a
31 member of the Management Committee for the Pennsylvania Section. I am also
32 a member of the Pennsylvania Municipal Authorities Association. In 1998, I
33 became a member of the National Association of Water Companies as well as a
34 member of its Rates and Revenue Committee.

35 **Q7. Briefly describe your work experience.**

36 **A.** I joined the Valuation Division of Gannett Fleming Corddry and Carpenter, Inc.,
37 predecessor to Gannett Fleming Valuation and Rate Consultants, Inc., in
38 September 1977, as a Junior Rate Analyst. Since then, I advanced through
39 several positions and was assigned the position of Manager of Rate Studies on
40 July 1, 1990. On June 1, 1994, I was promoted to Vice President and on
41 November 1, 2003, I was promoted to my current position as Senior Vice
42 President.

43 While attending Penn State, I was employed during the summers of 1972,
44 1973 and 1974 by the United Telephone System - Eastern Group in its
45 accounting department. Upon graduation from college in 1975, I was employed
46 by Herbert Associates, Inc., Consulting Engineers (now Herbert Rowland and
47 Grubic, Inc.), as a field office manager until September 1977.

48 **II. EXPLANATION OF IAWC EXHIBIT NO. 11.01**

49 **Q8. What is the subject of your direct testimony?**

50 **A.** The purpose of my direct testimony is to explain the methods and procedures
51 used for conducting the customer class demand study and discuss the results as
52 set forth in IAWC Exhibit 11.01.

53 **Q9. What is the purpose of a customer class demand study?**

54 **A.** A customer class demand study establishes a basis for selecting maximum day
55 and maximum hour ratios for each classification served by a water system.
56 These ratios may be used for the purposes of allocating extra capacity costs to
57 the various classes of users in the next cost of service allocation study.

58 **Q10. How would the ratios be selected without a demand study?**

59 **A.** Without a class demand study, a rate analyst would use his judgment based on
60 several factors, such as the system peak demands, the fluctuations of monthly
61 usage, the actual use of certain large customers, demographics of the customer
62 base, results of other studies and generally accepted ratios found in publications

63 **Q11. Have you prepared an exhibit presenting the results of your study?**

64 **A.** Yes, I have prepared IAWC Exhibit No. 11.01, which sets forth the results of the
65 study as well as a detailed listing of the data collected and the analysis of the
66 coincident and non-coincident peak demands.

67 **Q12. Did the Company experience peak demands during the study period?**

68 **A.** Yes, it did. The system delivery on August 8, 2007, was 59.9 mgd. Only one
69 day in 2005 has exceeded this amount since 2002.

70 **Q13. Is the Company continuing to record data?**

71 **A.** Yes, the Company will continue to record data.

72 **Q14. Please describe the contents of IAWC Exhibit No. 11.01.**

73 **A.** IAWC Exhibit No. 11.01 sets forth the plan of the report, the basis of the study,
74 the methods and procedures employed, and the results.

75 **Q15. What customer classes were monitored?**

76 **A.** The Company placed recording devices on residential, commercial, industrial,
77 public and sales for resale customers. An explanation of the methods and
78 procedure employed, the equipment used, and the monitoring sites selected are
79 provided in IAWC Exhibit No. 11.01.

80 For residential, recording devices were placed at high, medium and low
81 density neighborhoods in order to record a wide range of residential usage.
82 Residential consumption often varies by lot size and income level. The water
83 consumption data was recorded for the April 25 to August 14, 2007 period and
84 summarized on an hourly basis. The data was analyzed to determine the
85 coincident and non-coincident demand ratios by dividing the peak day and hour
86 usage recorded during the period by the average usage for each location.

87 For commercial, approximately 14 customers were monitored representing
88 a cross-section of various types of commercial establishments, such as
89 restaurants, a hair salon, hotel, car wash, gas station, medical offices, health club,
90 and various retail businesses. Data was recorded and analyzed for each
91 customer in a similar manner as the residential data.

92 For Industrial, the goal was to monitor large customers representing
93 various manufacturing processes. A total of 6 customers were monitored. Data
94 was collected and analyzed in a similar manner.

95 Four public authority customers and two sales for resale customers were
96 also selected for monitoring. The public class includes a hospital, a prison, a
97 municipal office, and a housing authority. The two sales for resale customers
98 included Bond Madison County and the City of Waterloo.

III. SUMMARY OF RESULTS

100 **Q16. How did you select the maximum day and hour ratios for each**
101 **classification?**

102 **A.** The data was summarized for each classification for coincident and non-
103 coincident peak demands. The coincident peak demand represents the single
104 day or hour that all the customers within the class peaked together. The non-
105 coincident peak is the sum of each individual customer’s peak day or hour within
106 the class regardless of when each individual peak occurred.

107 For maximum day ratios, more weight was given to the coincident peak
108 demand because maximum day facilities such as treatment plants can be
109 designed to meet peak demands of several distribution areas. For maximum
110 hour ratios, more weight was given to non-coincident demands because
111 maximum hour facilities such as distribution mains must be sized to meet the
112 localized peak demands of the customers.

113 After reviewing the data and the coincident and non-coincident ratios, I
114 used my judgment to select the maximum day and hour ratios within each
115 classification. The selected maximum day and hour ratios by classification are
116 provided below:

Customer <u>Classification</u>	Maximum Day <u>Ratio</u>	Maximum Hour <u>Ratio</u>
Residential	2.2	6.0
Commercial	1.5	4.3
Industrial	1.7	3.0
Public	1.4	2.8
Sales for Resale	1.3	2.0

117 **Q17. Do you have any observations with regard to the ratios selected?**

118 **A.** In my experience, these ratios are within the typical range of those observed
119 from other demand studies I have conducted with the exception of the Public
120 Authority class. The Public Authority class ratios are lower than what I have
121 observed since they tend to be similar to those experienced by the commercial
122 class.

123 **Q18. What are the updated demand factors you recommend in this proceeding?**

124 **A.** Based on the customer class demand study set forth in IAWC Exhibit No. 11.01, I
125 recommend that the maximum day and hour ratios set forth above, be used as
126 the updated demand factors in this proceeding.

127 **Q19. Does this conclude your testimony?**

128 **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

LIST OF CASES IN WHICH PAUL R. HERBERT TESTIFIED, cont.

24.	2001	Ia. St Util Bd	RPU-01-4	Iowa-American Water Company	Cost Allocation and Rate Design
25.	2001	Va. St. Corp Cm	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-2002-0375	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	Tenn 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	Tenn. 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