ILLINOIS COMMERCE COMMISSION

IAWC EXHIBIT NO. 9.00

DIRECT TESTIMONY

OF

PAUL R. HERBERT

ILLINOIS AMERICAN WATER COMPANY

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DIRECT TESTIMONY OF PAUL R. HERBERT **EXHIBIT NO. 9.00**

I. WITNESS QUALIFICATIONS AND EXPERIENCE

Q1. Please state your name and address.

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

Q2. By whom are you employed?

A. I am employed by Gannett Fleming, Inc.

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

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.

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

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 Delaware Public Service Commission, the Arizona Corporation Commission and the Tennessee

Regulatory Authority, concerning revenue requirements, cost of service allocation, rate design and cash working capital claims. A list of cases in which I have testified is attached to my testimony.

Q5. What is your educational background?

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

Q6. Would you please describe your professional affiliations?

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

Q7. Briefly describe your work experience.

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

While attending Penn State, I was employed during the summers of 1972, 1973 and 1974 by the United Telephone System - Eastern Group in its accounting department. Upon graduation from college in 1975, I was employed

by Herbert Associates, Inc., Consulting Engineers (now Herbert Rowland and Grubic, Inc.), as a field office manager until September 1977.

Q8. What is the purpose of your testimony in this proceeding?

A. On July 30, 2008, the Illinois Commerce Commission ("Commission") entered an Initiating Order in Docket 08-0463 (the "Initiating Order"): (i) requiring IAWC to provide updated demand factors for each rate area in which a rate increase was proposed in IAWC's prior rate case, Docket 07-0507, and to provide a cost of service study ("COSS"), and (ii) initiating an investigation into all aspects of the rate design of for all service areas of IAWC (water and sewer). On January 30, 2009, the Company submitted direct testimony and exhibits in compliance with the Commission Order at Docket 08-0463.

In its direct evidence in Docket 08-0463, the Company proposed rates based on the revenue requirements authorized by the Commission in its Docket 07-0507 order. The Company also addressed the rate design matters referenced by the Commission in the Docket 07-0507 Order and made related rate design proposals. I will refer to the Company's rate design proposals in Docket 08-0463 as the "Docket 08-0463 Proposals".

In this case, for each of IAWC's rate areas, I have prepared an update of the cost allocation studies that were submitted in Docket 08-0463 (which were based on the revenue requirements approved in Docket 07-0507) to reflect the revenue requirements proposed in this case ("Proposed Revenue Requirement"). I refer to the updated cost allocation studies for the rate areas collectively as the "Updated COSS". As discussed below, IAWC is maintaining the Docket 08-0463

Proposals in this case, but has updated them in light of the Updated COSS. As also discussed below, IAWC's rate design proposals in this case address the Commission's requirements regarding rate design set forth in the Docket 07-0507 Order and the Initiating Order.

The purpose of my testimony in this case is to discuss the Updated COSS, and proposals for rate design based on the results of the Updated COSS. The Updated COSS is attached hereto as IAWC Exhibit 9.01, and includes Schedules A through E for each rate area.

Q9. Was IAWC Exhibit 9.01 prepared by you or under your direction and supervision?

A. Yes.

II. COST OF SERVICE ALLOCATION

Q10. Briefly describe the purpose of the Updated COSS.

A. The Updated COSS allocates the rate area specific cost of service, which is the total proposed revenue requirement, for rate area water or wastewater operations as determined by the Company, to the customer classifications in each rate area. The rate areas for which updated cost allocation studies have been prepared include Champaign, Chicago Metro Water, Lincoln, Pekin, SPSPSB (including Sterling, now referred to as "Zone 1"), and Chicago Metro Wastewater. An additional cost allocation study combining Zone 1 and the Champaign rate area is also provided.

In the Updated COSS, the rate area specific costs were allocated to the residential, commercial (including large commercial), industrial (including large

industrial and competitive industrial), other public authorities (including large public authorities), sales for resale (including large sales for resale), private fire protection and public fire protection classifications in accordance with generally accepted principles and procedures. The Updated COSS results in indications of the relative cost responsibilities of each class of customers in each rate area. The allocated cost of service is one of several criteria appropriate for consideration in designing customer rates to produce the required revenues. The results of the allocation of the rate area specific cost of service for the test year ended December 31, 2010, and customer rates which produce the allowable revenue requirements, are presented in the studies.

Q11. Please describe the method of cost allocation that was used in the Updated COSS.

A. The methodology is that approved by the Commission for use in the rate investigation (Docket 08-0463) in its October 15, 2008 Order. That method is the base-extra capacity method, as described in 2000 and prior Water Rates Manuals published by the American Water Works Association (AWWA). Base-extra capacity is a recognized method for allocating the cost of providing water service to customer classifications in proportion to the classifications' use of the commodity, facilities, and services. It is generally accepted as a sound method for allocating the cost of water service and was used by the Company in previous cases.

Q12. Please describe the procedures followed in the Updated COSS.

A. Each identified classification of cost in the cost allocation study for a given rate area was allocated to the customer classifications through the use of appropriate factors. These allocations are presented in Schedule B of Exhibit 9.01 for each cost allocation study. The items of cost, which include operation and maintenance expenses, depreciation expense, taxes and income available for return, are identified in column 1 of Schedule B. The cost of each item, shown in column 3, is allocated to the several customer classifications based on allocation factors referenced in column 2. The development of the allocation factors is presented in Schedule C of Exhibit 9.01. I will use some of the larger cost items to illustrate the principles and considerations used in the cost allocation methodology.

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

Other source of supply, water treatment and transmission costs are associated with meeting usage requirements in excess of the average, generally to meet maximum day requirements. Costs of this nature were allocated to customer classifications partially as base costs, proportional to average daily consumption, partially as maximum day extra capacity costs, in proportion to maximum day extra capacity, and, in the case of certain pumping stations and

transmission mains, partially as fire protection costs, through the use of Factors 2 and 3. The development of the allocation factors, referenced as Factors 2 and 3, is shown in Schedule C.

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

Fire demand costs were allocated to public and private fire protection service in proportion to the relative potential demands on the system by public fire hydrants and private service lines as presented in Schedule D of Exhibit 9.01.

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

For operation and maintenance of mains, the relative weightings of Factor 3 (maximum day and fire) and Factor 4 (maximum hour) were based on the inch feet of transmission and distribution mains. Generally for cost allocation

purposes, mains larger than 10-inch were classified as serving a transmission function and mains 10-inch and smaller were classified as serving a distribution function. The development of this weighted factor is referenced as Factor 7.

Costs associated with meters were allocated to customer classifications in proportion to the meter equivalents of the sizes and quantities of meters serving each classification. The development of the factor for meters is referenced as Factor 9. Factor 10, Allocation of Services, was developed in a similar manner as Factor 9, except that the service equivalents were used in order to weight the number of services by classification. Costs associated with public fire hydrants were assigned directly to the public fire protection class (Factor 8).

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

Administrative and general costs were allocated on the basis of allocated direct costs, excluding those costs such as purchased water, power, chemicals and waste disposal, which require little administrative and general expense. The development of the factor is referenced as Factor 15. Cash working capital, an item of rate base, was allocated on the basis of allocated direct costs, including purchased water, power, chemicals and waste disposal since these items would effect the calculation of cash working capital. The development of the factor is referenced as Factor 15A.

Annual depreciation accruals were allocated on the basis of the function of the facilities represented by the depreciation expense for each depreciable plant account. The original cost less depreciation of utility plant in service was similarly allocated for the purpose of developing factors, referenced as Factor 18, for allocating items such as income taxes and return. The development of Factor 18 is presented on the last three pages of Schedule C.

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

Q13. What was the source of the total cost of service data set forth in column 3 of Schedule B of Exhibit 9.01?

A. The cost of service data furnished by the Company is based on Proposed Revenue Requirement.

Q14. For Schedule C of Exhibit 9.01, explain the source of the system maximum day and maximum hour ratios used in the development of factors referenced as Factors 2, 3 and 4.

A. The ratios were based on IAWC Exhibit 13.01, which is the demand factor study sponsored by Mr. McKinley of Black & Veatch in his direct testimony (IAWC Exhibit 13.00).

Q15. Please explain the allocation of small mains in certain rate areas.

A. Factor 4, used to allocate distribution mains, was modified to exclude consumption for certain large customers connected primarily to large mains,

commonly referred to as transmission mains, in Champaign, Chicago Metro Water, Pekin, Zone 1 and for the combined Zone 1 and Champaign. This was done to recognize that certain industrial customers, large other public authorities, and sales for resale customers are connected directly to the transmission system and do not benefit from the smaller distribution mains.

Q16. How was this adjustment accomplished?

A. In Champaign, the large other public authority and sales for resale customer classes' test year consumption was excluded in calculating Factor 4. In addition, the test year consumption for the six of the largest customers in the industrial customer class, was excluded from the industrial class for the basis of developing Factor 4. These customers are served from mains 12 inches and larger.

In Chicago Metro Water, the sales for resale customer class test year consumption was excluded from the basis of developing Factor 4.

In Pekin, two of the largest industrial customers are connected to 12-inch mains. The test year consumption for these two customers was excluded from the industrial class for the basis of developing Factor 4.

In Zone 1 (which includes the Southern, Peoria, Streator, Pontiac, South Beloit and Sterling districts), all large industrial, competitive industrial, large other public authority, sales for resale customers, and large sales for resale customers, are served from the transmission system and, therefore, were excluded from Factor 4. For the industrial classification, an analysis of the customers was performed to determine the size main each customer is served from. The test

year consumption of three of the industrial customers served from 12-inch main were excluded from Factor 4. For the combined Zone 1 and Champaign study, the same customers excluded in the stand alone studies were excluded in the combined study.

Q17. Have you summarized the results of the Updated COSS?

A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A of Exhibit 9.01 for each rate area. Column 2 sets forth the total allocated pro forma cost of service as of December 31, 2010, for each customer classification identified in Column 1. Column 3 presents each customer classification's cost responsibility as a percent of the total cost.

Q18. Have you compared these cost responsibilities with the proportionate revenue under existing rates for each customer classification?

A. Yes. A comparison of the allocated cost responsibilities and the percentage revenue under existing rates for each district can be made by comparing columns 3 and 5 of Schedule A of Exhibit 9.01. A similar comparison of the percentage cost responsibilities (relative cost of service) and the percentage of revenues (relative revenues) under proposed Alternateves 3 and 3A rates can be made by comparing columns 3 and 7 of Schedule A of Exhibit 9.01.

III. CUSTOMER RATE DESIGN

Q19. Please summarize the rate design considerations IAWC has reviewed for this proceeding.

A. The rate design considerations included:

1. Movement of the Zone 1 and other rate areas towards single tariff pricing ("STP").

2. Study of customer charges to assess the recovery of a greater portion of fixed costs for each rate area through the customer charge.

3. Design of alternative inclining-block rate structures for each rate area.

4. Analysis of potential rate structures for non-residential customers that would include the use of demand charges in addition to customer charges and volumetric charges.

5. Study of the cost to provide public fire service for each municipality or fire district based on the cost of service allocation studies within each rate area.

6. For the Chicago Metro District – Sewer - determination of the appropriate unit rate for collection and treatment customers and collection-only customers using less than 1,000 gallons per month.

Q20. Please describe the alternative rate designs considered.

A. I have considered four alternative rate designs: Alternative 1 (rates based on cost of service, with revised customer charges and declining block, shown on IAWC Exhibit 9.05); Alternative 1A (similar to Alternative 1 with single block structure for residential, shown on IAWC Exhibit 9.06); Alternative 2 (inclining block, shown on IAWC Exhibit 9.07); Alternative 3 (similar to Alternative 1A, with inclusion of minimum system costs in fixed customer charge, shown on IAWC Exhibit 9.08); and Alternative 3A (similar to Alternative 3, but combines Zone 1 and Champaign, shown on IAWC Exhibit 9.09).

Q21. What is your recommendation with respect to the alternatives?

A. I recommend adoption of Alternative 3A for water rates. Alternative 3A includes steps towards STP, including moving Sterling and Champaign into Zone 1 and implementing uniform customer charges, block structures and usage charges in Zone 1. The only exception to equalized rates for Zone 1 (including Champaign) is that the 5/8-inch customer charges for Champaign and South Beloit are less than the Zone 1 rate. These lower customer charges were set to mitigate the

level of the rate increase to small volume users. All other rates in the Zone 1 districts are the same.

Alternative 3A also includes moving additional fixed costs into the customer charge for all rate areas (as shown on IAWC Exhibit 9.03) through a phase in process and adopting a one-block structure for the residential class, which would replace the present declining block structure for that class. I also recommend setting cost-based public fire charges for all areas except Chicago Metro - Water, and new sewer rates as shown in IAWC Exhibit 9.05 (Alt 1). The recommended Alternative 3A water rates are shown on IAWC Exhibit 9.09.

Q22. Please describe Alternative 1.

A. Alternative 1 rate design (shown on IAWC Exhibit 9.05) incorporates the result of the revised cost allocations using the demand factors discussed earlier and in Mr. McKinley's testimony. Alternative 1 rates incorporate revised customer charges to reflect the customer charge analysis set forth in each cost allocation study. The customer charge analysis is summarized in IAWC Exhibit 9.02. The exhibit shows the range of customer costs among districts from $14.11 per month for a 5/8-inch meter to $21.61 per month. The aggregated state-wide customer costs would result in an $18.14 per month customer charge for a 5/8-inch meter. Based on this analysis, I recommend movement towards a uniform customer charge as follows: a $16.00 per month charge for Zone 1, including Sterling, and Pekin, a $14.00 per month charge for Champaign, a $13.50 per month charge for Chicago Metro - Water, a $10.50 per month charge for Lincoln and a $10.40 per month charge for South Beloit. Where the proposed customer

charge is less than $16.00, the proposed charge reflects consideration of the potential size of the increase to customer charges, especially for small volume users, that would have been required to move the customer charge all the way to the $16.00 Zone 1 rate at this time.

Consumption charges for Alternative 1 used the same basic declining block-rate design that exists for each district. Rates were adjusted to move revenues generally toward the indicated cost of service.

Q23. Did you consider the recovery of a greater portion of fixed costs in the customer charge?

A. Yes. I will address that consideration in the discussion of the Alternative 3 rate design.

Q24. Were further steps toward STP considered, such as moving Sterling to Zone 1?

A. Yes. The unit cost of service for Sterling is reasonably comparable to that of Zone 1 as a whole. The average monthly bill (at 7 ccf per month) in Zone 1 ($33.77) differs only slightly from the Sterling average monthly bill ($34.58). Accordingly, I recommend that Sterling move to Zone 1. Rates were designed to produce the combined revenue requirement for Zone 1 (including Sterling).

Q25. What is proposed for South Beloit?

A. South Beloit was retained in Zone 1 and all consumption rates were consolidated, except that an adjustment was made to reflect the fact that South Beloit, unlike other Zone 1 areas, utilizes a purchased water supply. The purchased water rates for South Beloit customers include a $0.80 monthly fixed

charge for a 5/8-inch meter, and a $1.04 per ccf consumption charge. For South Beloit, the purchased water consumption rate is deducted from the Zone 1 usage rates to reflect application of the purchased water charge for these customers. South Beloit customer charges will also remain below Zone 1 customer charges as explained earlier.

Q26. Please explain what you recommend for Private Fire and Public Fire Protection rates.

A. Generally, except for Chicago Metro - Water District, the private fire revenues do not sufficiently recover the cost of providing private fire protection. Therefore, I recommend increasing private fire rates in all other districts to move revenue toward the cost of providing service. Private fire rates for Chicago Metro were left unchanged. I will address Public Fire Protection rates later in my testimony.

Q27. Please explain the next alternative rate design, Alternative 1A.

A. Alternative 1A (shown on IAWC Exhibit 9.06) is similar to Alternative 1 with one exception. Instead of a declining block rate structure for residential customers, a single block rate was used and applied to all residential usage. All other customer charges and consumption charges for all other classes were left as shown in Alternative 1.

Q28. How was the single block rate determined for the residential class?

A. I divided the total residential consumption related revenue in Alternative 1 by the total residential consumption in each district. This is the average consumption rate for the residential class. When this average rate is applied to all rate blocks

in Alternative 1 (or to the total usage), it produces the same level of revenue for the residential class.

Q29. What is the advantage of having a single block rate for residential usage?

A. Large usage residential customers are likely using water for discretionary purposes such as watering lawns or other outdoor use. This class of customers has a poor load factor and uses water at times of high peak demands when supplies may be near capacity. Such usage should not be priced at a lower block rate than small users that use water for basic needs. With a single block structure, all residential usage is priced at the same rate.

For non-residential customers, a declining block rate structure reflects that larger customers generally have better load factors and such usage can be appropriately priced at a lower rate. This is why the declining block structure was retained for non-residential customers.

Q30. Please explain the rate design for Alternative 2.

A. Alternative 2 (shown on IAWC Exhibit 9.07) addresses the requirement that inclining block rate designs be presented. I used a three tier inclining block rate design for the residential class and a two block design for non-residential classes.

For residential, I set the first block at 4 ccf per month or 3,000 gallons or about 100 gallons per day. This covers a typical household's basic needs. This usage is priced at about a 15% discount from the proposed second block rate. Using Zone 1 as an example, this block includes about 43.5% of customer's bills and approximately 50.6% of the total consumption.

The second block is for the next 8 ccf (6,000 gallons) or up to 12 ccf per month (9,000) gallons. This block covers about twice the average residential use, includes 91.3% of the bills and about 86% of the total usage.

The third block is for usage above 12 ccf per month or 9,000 gallons. The remaining 8.7% of customers bills fall into this block and the remaining 14% of the consumption. This block is priced at about 10% higher than the proposed second block rate.

For non-residential customers, I developed two-block inclining structures for each classification with rates relatively flat between the blocks for cost of service considerations. This acknowledges that larger customers generally have better load factors and therefore should not pay higher rates with increased usage.

As with Alternative 1, South Beloit (excluding customer charges) and Sterling were merged into Zone 1 for the purposes of the Alternative 2 rate design.

Q31. Please describe Alternative 3 rate design.

A. Alternative 3, shown on IAWC Exhibit 9.08, is similar to Alternative 1A, except that a greater portion of fixed costs is recovered in the customer charge.

Q32. How did you determine the additional amount of fixed costs that should be recovered in the customer charge?

A. The customer charges, as determined in Alternative 1 rate design and IAWC Exhibit 9.02, recover the operation and maintenance expenses and capital costs associated with meters and service lines and the operating costs to read a

customer's meter and render and collect a bill. These are the costs that are typically recovered in customer charges for water utilities.

In the energy utility industry, a common practice is to determine what portion of the distribution system results from connecting additional customers to the system regardless of the level of usage. This is commonly referred to as a minimum system analysis. In other words, what would be the cost of the distribution system if all you needed to do was connect everyone so that they could receive a unit of service? This minimum system is considered a customer cost and allocated to each customer based on the number of customers.

For IAWC, the smallest size main that had a significant length of pipe was a 2-inch main. I applied the current cost of installing each size main to the footage of mains by size to determine the current cost of the actual distribution system. Then I applied the unit cost of the 2-inch main to the entire system and divided this result by the actual current cost. This ratio was 38.3%, representing the portion of the distribution system assigned as the minimum system and allocated to the number of customers. I then applied the 38.3% factor to the revenue requirement associated with mains – operation and maintenance expenses, depreciation and return and taxes. The revenue requirement associated with the customer portion of the distribution system was divided by the number of customers and twelve months to produce a monthly minimum system cost of $4.67 per customer, as shown on IAWC Exhibit 9.03.

Q33. How do you propose to recover the minimum system cost?

A. Since the $4.67 amount of minimum system cost represents an additional 29.2% increase to the proposed $16.00 customer charge, I recommend recovering the minimum system cost in phased-in steps. In this case, the first step increase to the customer charge would be $1.75 per month. The Alternative 3 and 3A rate designs show the inclusion of the first step in the customer charge and the resulting decrease to consumption charges from Alternative 1 and 1A, in order to recover the same proposed revenue requirement.

Q34. Did you analyze the recovery of fixed costs through demand charges for non-residential customers?

A. Yes. A review of the 25 highest usage customers in IAWC's service areas was conducted to identify customers for which a demand charge-based rate structure may be appropriate, and the rate areas for these 25 customers reside were identified. The rate areas included Zone 1 (including Sterling), Champaign, Pekin and Lincoln. Example demand charges were then developed for these selected rate areas. IAWC Exhibit No. 9.04 shows the calculation of sample demand charges using the cost of service allocated to the Competitive Industrial class in Zone 1 and the Industrial classes in Champaign, Pekin and Lincoln. The demand charge recovers the fixed costs of providing service based on a customer's maximum day requirement. Actual usage would be priced at the variable rate. A customer charge would also apply, plus any costs associated with special metering equipment.

Q35. What are the advantages and disadvantages of demand based rate structures?

A. An advantage of demand rates is that, as compared to a more traditional rate design, demand rates can better track cost causation and enable the utility to recover its fixed costs (which are not affected by water usage) through the demand charge rather than a usage charge. Under the more traditional rates, a significant portion of the utility fixed cost is recoverable through charges that are based on usage. This is not an appropriate price signal in that fixed capacity cost does not vary with the amount of non-peak water used. A demand rate assigns all or a portion of the recovery of peak capacity cost to the demand charge and not to the usage charge. The customer has the incentive to control its cost of service by minimizing the peak use and the demand charge that would result. This potential reduction in peak use is an advantage to all customers that can provide extra capacity for other customers.

The disadvantages of demand rates include the administrative costs to monitor and keep track of daily readings and billing each customer on a separate basis. As Mr. Grubb notes, the Company has utilized water demand metering technology to apply its Standby Rate (under which one customer is served), and in connection with a 2007 demand factor study. As Mr. Grubb explains, problems were experienced with the reliability of the meters. Also, although I set forth estimated bills on the example demand rate calculations in Exhibit 9.04, these bills are based on estimates of customer peak demand, and not on actual demand data. Thus, as Mr. Grubb indicates, additional billing data would be required to support a proposed level of demand based charges. Because the Company has not yet determined the availability of adequate demand metering

technology, I have not calculated an addition to the customer charge component of the demand rate to reflect the use of demand metering. For these reasons, I do not propose that a demand rate be implemented at this time.

Q36. Please describe Alternative 3A rate design.

A. Alternative 3A, shown on IAWC Exhibit 9.09, is similar to Alternative 3, except that Champaign has been moved into Zone 1 and uniform customer charges, block structures and usage charges have been implemented in Zone 1 (as discussed above, the only exception is that the 5/8-inch customer charges for Champaign and South Beloit are less than the Zone 1 customer charge rate, in order to mitigate the level of the rate increase to small volume users). All other proposed rates are the same in Districts within Zone 1.

Alternative 3A also includes moving additional fixed costs into the customer charge for all rate areas through the phase-in discussed above (as shown on IAWC Exhibit 9.03) and adopting a one-block structure for the residential class, which would replace the present declining block structure for that class. As discussed above, I am recommending that Alternative 3A rate design be adopted.

Q37. Please describe the analysis of public fire charges.

A. An analysis of the public fire costs per customer by municipality for the Chicago Metro area and per hydrant by municipality in all other rate areas was prepared and is presented in IAWC Exhibit 9.10. For Champaign, I recommend public fire charges that would recover the updated cost of service, which is approximately $2,141,332. For Sterling and other Zone 1 areas, I recommend that the public

fire rates increase 23.7% to move revenues toward the updated cost of service for the total Zone 1 rate area. The public fire charges in the Pekin and Lincoln rate areas were increased 32.2% and 35.5%, respectively, to move toward cost of service levels.

For the Chicago Metro – Water District, I recommend increasing the uniform public fire charge by 75% per month. The 75% increase represents less than half of the updated cost of service for this rate area as shown in IAWC Exhibit 9.01. IAWC Exhibit 9.10, page 3, shows a comparison of the calculated rate per customer per month based on the number of hydrants and customers within each municipality. The comparison shows that the proposed uniform public fire charge of $7.86 per month in Chicago Metro recovers a reasonable portion of the cost based on the calculated rate.

For the remaining districts, pages 1 and 2 of Exhibit 9.10 shows that the proposed public fire revenues per hydrant by municipality for Zone 1, Pekin and Lincoln recover a reasonable level of the cost to provide public fire protection.

Q38. Please explain the rate design proposed for Chicago Metro Wastewater.

A. The rate design for Chicago Metro - Wastewater relied upon the results of the cost of service allocation presented in Exhibit 9.01. The cost allocation shows the cost of service attributable to Collection Only customers, Collection and Treatment customers, and Treatment Only customers. The cost allocation results show that under the allowed rates in the last case, the Collection Only customers are contributing revenues in excess of their costs and the Collection

and Treatment and Treatment Only customers are contributing revenues far less than their costs.

The proposed rate design begins to realign the revenues with the cost of service and is presented in IAWC Exhibit 9.05 – CMWW. For Collection Only customers, the proposed rates were left unchanged from existing rates (consisting of a fixed charge and a single block consumption charge.) The residential fixed charge for Collection Only customers includes an allowance of 1.33 ccf or 1,000 gallons.

For Collection and Treatment customers, the proposed rates begin to move toward the cost for providing such service and also include a fixed charge, a single-block consumption charge for residential and a two-block consumption charge for non-residential. The residential fixed charge also includes an allowance of 1.33 ccf or 1,000 gallons.

For Treatment Only (wholesale) customers, the Tinley Park rate was set at $38.38 per Tinley Park user per month, based on the difference between an average collection and treatment bill and an average collection only bill. The Tinley Park West monthly fee, covering a multi-unit development, was set at one-half of the Tinley Park rate or $19.19 per user per month, in accordance with the agreement between IAWC and Tinley Park.

Q39. Does this complete your testimony at this time?

A. Yes, it does.

LIST OF CASES IN WHICH PAUL R. HERBERT HAS TESTIFIED

	Year	Jurisdiction	Docket No.	Client/Utility	Subject
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

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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	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

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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