

RECEIVED

Commonwealth of Kentucky  
Before the Public Service Commission

JUL 30 2007  
PUBLIC SERVICE  
COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY-AMERICAN )  
WATER COMPANY FOR A CERTIFICATE OF ) Case No. 2007-00134  
CONVENIENCE AND NECESSITY AUTHORIZING )  
THE CONSTRUCTION OF KENTUCKY RIVER )  
STATION II, ASSOCIATED FACILITIES AND )  
TRANSMISSION MAIN )

ATTORNEY GENERAL'S PRE-FILED DIRECT TESTIMONY  
WITH NOTICE OF FILING OF  
HIS WITNESS PRESENTING TESTIMONY

The Attorney General submits his Pre-filed Direct Testimony, and he provides notice that Scott J. Rubin is presenting testimony.

Respectfully submitted,

GREGORY D. STUMBO  
ATTORNEY GENERAL

*David Edward Spenard*

David Edward Spenard  
Dennis G. Howard II  
Assistant Attorneys General  
1024 Capital Center Drive, Suite 200  
Frankfort, KY 40601-8204  
T 502 696-5457  
F 502-573-8315

*Notice of Filing and Certificate of Service*

Counsel gives notice that the original and ten photocopies were filed by hand delivery to Beth O'Donnell, Executive Director, Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601 on this 30<sup>th</sup> day of July, 2007.

Counsel also certifies service of this document by mailing a true and correct photocopy of the same, first class postage prepaid, to the following (all on this 30<sup>th</sup> day of July, 2007). (Counsel is also transmitting an electronic version of this document (in PDF format) to the parties of record.)

Lindsey W. Ingram, Jr.  
Lindsey W. Ingram III  
Stoll Keenon Ogden  
300 West Vine Street, Suite 2100  
Lexington, Kentucky 40507-1801  
(Counsel for Kentucky-American Water);

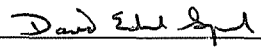
Damon R. Talley  
P. O. Box 150  
Hodgenville, Kentucky 42748  
(Counsel for Bluegrass Water Supply Commission);

David Jeffrey Barberie  
Lexington-Fayette Urban County Government, Department of Law  
200 East Main Street  
Lexington, Kentucky 40507  
(Counsel for LFUCG);

David F Boehm  
Michael L. Kurtz  
Boehm, Kurtz & Lowry  
36 East Seventh Street  
2110 CBLD Building  
Cincinnati, Ohio 45202  
(Counsel for KIUC);

Thomas J FitzGerald  
Kentucky Resources Council, Inc.  
Post Office Box 1070  
Frankfort, Kentucky 40602  
(Counsel for Citizens for Alternative Water Solutions – CAWS); and

Kentucky River Authority  
ATTN: Stephen Reeder, Director  
70 Wilkinson Boulevard  
Frankfort, Kentucky 40601

  
Assistant Attorney General

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:	:	
THE APPLICATION OF KENTUCKY-AMERICAN	:	
WATER COMPANY FOR A CERTIFICATE OF	:	
CONVENIENCE AND NECESSITY AUTHORIZING	:	CASE NO. 2007-00134
THE CONSTRUCTION OF KENTUCKY RIVER	:	
STATION II, ASSOCIATED FACILITIES AND	:	
TRANSMISSION MAIN	:	

Direct Testimony of  
**Scott J. Rubin**

on Behalf of  
the Office of the Attorney General

July 30, 2007

---

## Introduction

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

A. My name is Scott J. Rubin. My business address is 333 Oak Lane, Bloomsburg, Pennsylvania 17815.

**Q. By whom are you employed and in what capacity?**

A. I am an independent consultant and an attorney. My practice is limited to matters affecting the public utility industry.

**Q. What is the purpose of your testimony in this case?**

A. I have been asked by the Office of the Attorney General (AG) to review the Application filed by Kentucky-American Water Company (KAWC or Company). I also have been asked to offer an opinion concerning whether the Public Service Commission should grant KAWC a certificate of convenience and necessity for the proposed project (and, if so, under what conditions). The proposed project would involve the construction of a new treatment plant, intake, pipeline, and related facilities that would bring water from Pool 3 of the Kentucky River to the greater Lexington area for servicing KAWC's entire service area. For ease of reference, I will call this the "Pool 3 Project."

**Q. What are your qualifications to provide this testimony in this case?**

A. I have testified as an expert witness before utility commissions or courts in the District of Columbia and in the states of Arizona, Delaware, Kentucky, Illinois, Maine, Maryland, New Jersey, New York, Ohio, Pennsylvania, and West Virginia. I also have testified as an expert witness before two committees of the U.S. House of Representatives and one committee of the Pennsylvania House of Representatives. In addition, I have served as a

1 consultant to the staffs of the Connecticut Department of Public Utility Control and the  
2 Delaware Public Service Commission, as well as several national utility trade  
3 associations, and state and local governments throughout the country. Prior to  
4 establishing my own consulting and law practice, I was employed by the Pennsylvania  
5 Office of Consumer Advocate from 1983 through January 1994 in increasingly  
6 responsible positions. From 1990 until I left state government, I was one of two senior  
7 attorneys in that Office. Among my other responsibilities in that position, I had a major  
8 role in setting its policy positions on water and electric matters. In addition, I was  
9 responsible for supervising the technical staff of that Office. I also testified as an expert  
10 witness for that Office on rate design and cost of service issues.

11 Throughout my career, I developed substantial expertise in matters relating to the  
12 economic regulation of public utilities. I have published articles, contributed to books,  
13 written speeches, and delivered numerous presentations, on both the national and state  
14 level, relating to regulatory issues. I have attended numerous continuing education  
15 courses involving the utility industry. I also periodically participate as a faculty member  
16 in utility-related educational programs for the Institute for Public Utilities at Michigan  
17 State University, the American Water Works Association, and the Pennsylvania Bar  
18 Institute. Appendix A to this testimony is my curriculum vitae.

19 **Q. Do you have any experience that is particularly relevant to the issues in this case?**

20 A. Yes, I do. I have worked with the Kentucky AG since 1994 on cases involving KAWC's  
21 source of supply situation. I testified on behalf of the AG in cases involving the  
22 Company's source of supply in 1994 (Case No. 93-434), 1997 (Phase II of Case No.  
23 93-434), and 2002 (Case No. 2001-00117). As a result, I am very familiar with the

1 history of KAWC's activities regarding the identification and planned remediation of its  
2 source of supply deficit. These include its earlier investigation of solutions based on  
3 augmenting supplies from the Kentucky River, as well as earlier plans to construct a  
4 finished-water pipeline that would connect to the Louisville Water Company.

## 5 Summary

6 **Q. Please summarize your findings and conclusions.**

7 A. Based on my review of the Application and the documents provided by the Company  
8 during the discovery process, I find that the proposed Pool 3 Project is a reasonable,  
9 least-cost solution to KAWC's source of supply deficit.

10 I also find that KAWC undertook reasonable (but by no means extraordinary)  
11 efforts to attempt to develop a regional water supply project that would minimize costs to  
12 its customers and maximize the beneficial use of the Kentucky River's resources  
13 throughout Central Kentucky. Unfortunately, those efforts have failed to result in a  
14 viable regional project at this time. Given the severity of KAWC's supply deficit (which  
15 is primarily the result of economic development and population expansion in Central  
16 Kentucky), I do not believe it is reasonable for KAWC to wait any longer to significantly  
17 enhance its supply resources.

18 I also find that the water use patterns of KAWC's customers are fairly typical for  
19 water consumers in climates similar to Central Kentucky. I find that average residential  
20 water consumption within KAWC's system has declined since 1994. This is consistent  
21 with national trends and appears to be driven largely by more efficient plumbing fixtures  
22 that were mandated by a 1992 federal law, and by demographic trends that have resulted

1 in a reduction in the average number of people living in each household. While it should  
2 be possible to further reduce water consumption (particularly outdoor water use) through  
3 aggressive conservation and leak detection programs, it is my opinion that such efforts  
4 would not eliminate KAWC's source of supply deficit.

5 I recommend, therefore, that the Commission grant a certificate of convenience  
6 and necessity for the project, with certain conditions.

7 **Q. Please summarize the conditions you recommend.**

8 **A.** I recommend three conditions:

- 9 • To ensure that the Pool 3 Project is the reasonable least-cost option for  
10 KAWC, the Commission should impose a condition that limits the costs  
11 that KAWC can recover through its retail rates (a "cost cap"). A cost cap  
12 places the burden on KAWC to use contracting, construction, and  
13 procurement practices that minimize the cost of the project. It also  
14 ensures that the Pool 3 Project becomes the least-cost option in fact, and  
15 not just on paper.
- 16 • To ensure that the Pool 3 Project can meet Central Kentucky's needs well  
17 into the future, KAWC should be required to hire a qualified conservation  
18 consultant to develop a conservation program consistent with best  
19 practices in the water industry, including an aggressive program to reduce  
20 non-revenue water. A great deal has been learned about water  
21 conservation since 1994, and it is important for Central Kentucky to take  
22 steps now to improve the efficiency of water consumption in ways that do  
23 not adversely affect the quality of life, economic development, or the  
24 scenic beauty of the region.
- 25 • To ensure that Central Kentucky does not face a similar decades-long  
26 water supply deficit in the future, KAWC should be required to file with  
27 the Commission a new supply and demand management plan within six  
28 months of the date on which utilization of the new plant reaches 80% of  
29 capacity for one day (unless such utilization is the result of a temporary  
30 outage at KAWC's Richmond Road Station, or other short-term  
31 emergency such as a serious fire). For example, if the new plant has a  
32 capacity of 20 million gallons per day (MGD), then KAWC would be  
33 required to file a plan once the plant produces 16 million gallons in one  
34 day.



---

## The Source of Supply Deficit

1 **Q. KAWC claims that there is a water supply deficit in its service area. Do you agree?**

2 A. Yes, I do. The demand for water by KAWC's customers already exceeds the safe yield  
3 of KAWC's supplies during non-drought conditions, and is nearly twice as high as the  
4 safe yield during drought conditions. According to the Company's data, KAWC's  
5 maximum day demand reached 66.4 MGD in 2000 and 67.2 MGD in 2006, compared  
6 with a safe yield of 65 MGD, and a drought-restricted safe yield of between 30 and 35  
7 MGD. Direct testimony of Linda Bridwell, Tables 1 and 2. The Company projects  
8 maximum day demand reaching 71 MGD, or perhaps as much as 75 MGD (depending on  
9 weather conditions), by 2010.  
10

11 **Q. What does this mean?**

12 A. This means that KAWC's customers already are demanding more water than KAWC can  
13 reliably produce. Water demands are projected to continue growing as the population  
14 and economy of the region continue to expand, which will only exacerbate the problem.

15 **Q. What has caused the supply deficit?**

16 A. The supply deficit is primarily the result of population growth and economic expansion in  
17 the greater Lexington area. According to the U.S. Census Bureau, the population in  
18 Fayette County was 204,165 in 1980.<sup>1</sup> By 2005, it had increased by more than 30% to  
19 267,929.<sup>2</sup> As Ms. Bridwell shows in Exhibit B to her testimony, the average person in  
20 KAWC's service area uses approximately the same amount of water today as he or she

---

<sup>1</sup> U.S. Census Bureau, Population and Housing Unit Counts, 1990 CPH-2-1, Table 30 (data for 1940-1990).

<sup>2</sup> U.S. Census Bureau, Annual Estimates of the Population for Incorporated Places Over 100,000, Ranked by July 1, 2006 Population: April 1, 2000 to July 1, 2006, SUB-EST2006-01.

1 did in 1986 (about 80 gallons per person per day). Thus, just through population growth,  
2 KAWC's average daily consumption has increased by more than 5 MGD since 1980.

3 Moreover, during this time period, the average household size has been declining  
4 (as I discuss below), which means that the number of KAWC customers has increased by  
5 an even larger percentage than the population in the region. Indeed, since 1990, KAWC  
6 has added more than 47,000 residential customers to its system, representing a 70%  
7 increase in its customer base.<sup>3</sup>

8 In addition, though, we know that consumption during peak periods (hot, dry  
9 weather) is significantly more than average daily consumption. In its current rate case,  
10 KAWC estimates that residential customers use 1.9 times as much water on a peak day as  
11 they do on an average day.<sup>4</sup> Thus, in terms of KAWC's peak-day requirements, I would  
12 expect population growth since 1980 to account for an increase of between 9 and 10  
13 MGD in KAWC's treatment plant capacity requirements. (Treatment plants typically are  
14 designed to meet peak day requirements.)

15 Finally, we also know that this dramatic increase in population has not occurred in  
16 a vacuum. The increase in population goes hand-in-hand with an increase in economic  
17 activity – manufacturing, retail, and other types of businesses also have increased  
18 significantly in the greater Lexington area since the mid-1980s. For example, the U.S.  
19 Census Bureau reports that employment in the four major sectors of the economy  
20 (manufacturing, wholesale, retail, and services) increased from 76,911 people to 116,024

---

<sup>3</sup> KAWC response to AG First Data Request No. 24, p. 4.

<sup>4</sup> Case No. 2007-00143, KAWC Exh. 36, p. 13 of 45.

1 people in Fayette County between 1992 and 2002.<sup>5</sup> Without knowing more information  
2 about the types of businesses that were created or expanded, it is not feasible to develop  
3 an accurate projection of increased water consumption from this new economic activity.  
4 But there is no question that new businesses and new jobs also translate into increased  
5 water consumption. Of course, there also has been significant expansion outside of  
6 Fayette County within KAWC's service area.

7 **Q. What did KAWC do to meet this increased demand for water?**

8 A. During this time period, KAWC did not increase its ability to provide water during peak  
9 periods. In essence, KAWC served these new customers and new water demands by  
10 eating into the margin of safety that was built into its existing facilities. The effect is  
11 that, as I discussed above, by 2000 KAWC's maximum daily demand exceeded the safe  
12 yield of its facilities, and was nearly twice as high as its safe yield during drought  
13 conditions.

14 **Q. Are you suggesting that KAWC acted imprudently?**

15 A. I have very little interest in assessing blame; I am much more interested in correcting  
16 problems and focusing on what can be done in the future to prevent similar occurrences.  
17 Therefore, I have not made a determination of KAWC's prudence during this time  
18 period. For at least part of this period, KAWC was actively engaged in attempting to  
19 develop long-term solutions for the supply deficit. As Ms. Bridwell discusses in her  
20 testimony, early on there was some dispute about the magnitude of the deficit and about

---

<sup>5</sup> U.S. Census Bureau, 1992 Economic Census – Area Profile, Fayette County, KY; U.S. Census Bureau, 2002 Economic Census, Summary Statistics by 2002 NAICS – Fayette County, KY.

whether conservation could make a significant contribution in closing the gap. Until recently, I would characterize KAWC as lacking a sense of urgency in dealing with this problem.

**Q. What do you conclude about KAWC's source of supply deficit?**

A. I conclude that the source of supply deficit is real and must be addressed as soon as possible. Action must be taken to address the current inadequacy of KAWC's water supply and treatment facilities.

### **Regional Solutions**

**Q. Should KAWC act by itself to resolve its source of supply deficit?**

A. Ultimately, it is KAWC's responsibility to provide safe and reliable service to customers within its service area. I am a strong proponent of regional solutions to the provision of water service, but if a regional solution cannot be developed each water supplier still must meet its obligations to its customers and service area.

**Q. Did KAWC attempt to work with neighboring water suppliers to develop a regional solution?**

A. Yes, although I did not participate in any of the discussions, it appears from documents provided in discovery that KAWC worked with water suppliers throughout Central Kentucky for several years to try to develop a regional water supply and transmission project. It appears that the other suppliers had difficulty obtaining funding for the network of water transmission mains and related facilities that would be required to move water throughout the region. It also appears that, at least so far, none of them have committed to provide funding for a treatment plant. It appears that a regional solution

1 becomes more complicated because KAWC is an investor-owned company, but the other  
2 suppliers in the region are owned or operated by local governments. Because of the  
3 different ownership structures, there are constraints on the types of joint planning and  
4 funding that can be undertaken. This does not make a regional project impossible, but it  
5 does make it more complicated to plan and implement.

6 **Q. What should the Company do?**

7 A. Given the magnitude of KAWC's supply deficit, and the prospects for continued growth  
8 within the region, it is reasonable for KAWC to undertake its own project to augment its  
9 source of supply. KAWC's service area is at risk for a serious water shortage, and  
10 KAWC has the responsibility to alleviate that risk.

### 11 **Demand Management and Non-Revenue Water**

12 **Q. In your opinion, could demand management eliminate KAWC's source of supply**  
13 **deficit?**

14 A. No, I do not think demand management could eliminate the deficit. As I mentioned  
15 earlier, KAWC's per capita consumption has been essentially flat for the past 20 years.  
16 Further, because the average number of people in each household continues to decline,  
17 the average consumption for a residential customer continues to decline. For example,  
18 according to the U.S. Census Bureau, in 1980 there were an average of 2.5 people for

1 each housing unit in Fayette County. By 2005, that figure had fallen to 2.1 people per  
2 housing unit.<sup>6</sup>

3 From the data I have seen, most water utilities have experienced a decline in per  
4 household water consumption during the past 10 or 15 years. This is generally attributed  
5 to the combination of smaller household size and the use of more efficient plumbing  
6 fixtures that were mandated by federal law in the mid-1990s. Certainly, further demand  
7 reductions for KAWC are possible, particularly by reducing outdoor water use. But  
8 KAWC faces a deficit of more than 20 MGD under drought conditions. To put that in  
9 perspective, in the Company's current rate case, it shows average consumption of about  
10 36 MGD. Recall that KAWC's safe yield during drought conditions is between 30 and  
11 35 MGD. This means that in order for KAWC to avoid a supply project, a conservation  
12 program would need to not only completely eliminate peak demand (in excess of 30  
13 MGD) but also reduce average demand. I am not aware of any conservation program that  
14 can accomplish that type of result cost effectively.

15 In other words, I believe that a conservation program could help prolong the life  
16 of a new supply project, including the Pool 3 Project. But I do not believe it is reasonable  
17 to assume that conservation could avoid the need for the project entirely.

---

<sup>6</sup> U.S. Census Bureau, Population and Housing Unit Counts, 1990 CPH-2-1; U.S. Census Bureau, Annual Estimate of Housing Units for Counties in Kentucky: April 1, 2000 to July 1, 2005, HU-EST2005-04-21; U.S. Census Bureau, Annual Estimates of the Population for Incorporated Places Over 100,000, Ranked by July 1, 2006 Population: April 1, 2000 to July 1, 2006, SUB-EST2006-01.

1 **Q. Did you analyze conservation options in the earlier source of supply investigations?**

2 A. Yes, I did. If I remember correctly, at that time we concluded that conservation could  
3 delay the construction of a supply augmentation project. We believed that this would  
4 provide time for the Kentucky River Authority to upgrade facilities on the Kentucky  
5 River to augment the supply available to KAWC, and that would obviate the need for  
6 KAWC to construct a pipeline to Louisville (or at least make such construction  
7 uneconomical due to the low level of purchases that would be needed to augment local  
8 supplies).

9 I continue to believe that we were correct in our assessment at that time.  
10 Unfortunately, the supply augmentation projects on the Kentucky River have not all been  
11 undertaken and there is now no question that KAWC must build something new in order  
12 to assure its customers of a safe and reliable supply of water.

13 **Q. Does KAWC have a significant problem with water losses, and would controlling**  
14 **that have an impact on the need for the project?**

15 A. KAWC does have a significant problem with what is generally characterized as  
16 “non-revenue water” – that is, water that does not make it to a customer’s water meter.  
17 This term is becoming the preferred term in the water industry for what has been known  
18 as “unaccounted-for water.” The latter term will be falling into disuse because the best  
19 practice in the industry is to account for all water through a water auditing process. Some  
20 non-revenue water is for legitimate, unavoidable purposes, such as flushing fire hydrants,  
21 fighting fires, and backwashing filters in a treatment plant. Other causes of non-revenue  
22 water, such as leakage and faulty water meters, are avoidable but can be costly to identify  
23 and fix. Reducing non-revenue water involves economic trade-offs between the cost of

1 producing and distributing the water versus the cost of locating and eliminating the  
2 source of water loss.

3 Whatever term is used, I have serious concerns with KAWC's existing level of  
4 non-revenue water. The Company shows that in 2006, it had non-revenue water of 10.06  
5 MGD, or more than 3.6 billion gallons per year.<sup>7</sup> The Company indicates that  
6 approximately 20% of that amount is for "public" use, which would include uses such as  
7 fire fighting, street cleaning, and so on. The remainder, however, is largely lost. When  
8 compared to the Company's average daily production of 45.19 MGD<sup>8</sup>, it means that  
9 KAWC is producing about 45 MGD in order to sell about 36 or 37 MGD to its  
10 customers. Stated differently, KAWC has to produce about 120 gallons of water for  
11 every 100 gallons that reaches the customer.

12 **Q. Would eliminating this non-revenue water eliminate the need for the Pool 3 Project?**

13 A. First, it must be understood that non-revenue water cannot be completely eliminated. As  
14 I mentioned, some of it is necessary for system operations. Further, water systems leak  
15 and water meters age. Non-revenue water can never be completely eliminated, but  
16 utilities have been successful in controlling it to levels below 10%. Of course, that comes  
17 at a cost, and the cost of controlling non-revenue water needs to be compared to the costs  
18 that will be avoided.

19 Second, in my opinion we are past the time when controlling non-revenue water  
20 would have an impact on the supply project. Like conservation, controlling non-revenue

---

<sup>7</sup> KAWC response to LFUCG First Data Request No. 5.

<sup>8</sup> Direct Testimony of Linda Bridwell, Table 1.



1 water could have delayed the date by which additional supply is needed. But that time is  
2 past. Even if KAWC's non-revenue water were zero (which, as I said, is not possible),  
3 the Company still would need about 37 MGD on an average day, and in the range of 70  
4 MGD on a peak day, to serve its customers. The safe yield of the system in a drought is  
5 only 30-35 MGD, and the total safe yield under normal conditions is 65 MGD.  
6 Therefore, even if non-revenue water were completely eliminated, KAWC still would  
7 need to augment its supply.

8 In addition, of course, Central Kentucky's economy continues to grow.  
9 Population is projected to increase significantly over the next 20 years. According to the  
10 Kentucky State Data Center, Fayette County's population is projected to increase by  
11 more than 52,000 people between 2005 and 2025, an increase of about 20%.<sup>9</sup> At 80  
12 gallons per person per day, population growth alone would be expected to increase  
13 KAWC's average residential demand by an additional 4 MGD, and peak demand by  
14 almost 8 MGD, by 2025.

15 I conclude, therefore, that while it is imperative for KAWC to more aggressively  
16 control its non-revenue water, doing so will not eliminate the need for it to augment its  
17 source of supply.

---

<sup>9</sup> Kentucky State Data Center, Historical and Projected Populations for State of Kentucky, Area Development Districts, and Counties, released November 2004 (2005 population of 269,333; 2025 population of 322,194).

## Reasonableness of the Pool 3 Project

**Q. You said that KAWC must build something to augment its supply. Based on your review, is it reasonable for KAWC to build the Pool 3 Project at this time?**

**A.** Yes, it is. Based on my review, it appears that the Pool 3 Project is the only feasible option available to KAWC at this time. It also appears that the Pool 3 Project would be a lower cost option for KAWC and its customers than a finished-water pipeline to Louisville Water Company (LWC) – assuming that such a pipeline could be sited and built within a reasonable period of time (which is far from certain).

**Q. Assuming hypothetically that a pipeline to LWC could be built, how would the cost of the Pool 3 Project compare to such a pipeline?**

**A.** That is difficult to assess with any accuracy because it is unclear exactly where a pipeline to LWC would be located, and therefore how to evaluate the cost of the pipeline. Constructing a pipeline is expensive. For example, KAWC projects that its roughly 30-mile pipeline from Pool 3 to its system will cost more than \$76 million to plan, site, and construct.<sup>10</sup> Seemingly small deviations in the route of a pipeline can translate into significant increases in costs.

But assuming that a pipeline from LWC's system to KAWC's system could be constructed, I would expect the cost per mile to be similar to the cost projected by KAWC for the pipeline from Pool 3 to KAWC's system. That cost is approximately \$2.5 million per mile. In Case No. 93-434 when such a pipeline was considered, the length was estimated to be at least 50 miles. If we assume a 50-mile length for the

---

<sup>10</sup> Pipeline length from Exh. H to KAWC's Application; pipeline cost from KAWC answer to AG First Data Request No. 9, p. 1.

1 pipeline and a capital cost of \$2.5 million per mile, that results in a capital cost of \$125  
2 million, just for the pipeline.

3 That needs to be compared to the \$158 million capital cost of entire the Pool 3  
4 Project (assuming a 20 MGD plant is built initially).<sup>11</sup> So the initial savings in capital  
5 costs would be on the order of \$33 million. In developing an annual cost estimate, the  
6 capital cost is multiplied by the pre-tax cost of capital, and added to the amount of  
7 depreciation. The pre-tax cost of capital assumed in KAWC's analysis in AG First Data  
8 Request No. 9 is 10.78%, and the depreciation rate on the pipeline is 1.18%. So the  
9 hypothetical \$125 million pipeline to LWC would result in an annual cost to KAWC's  
10 customers of 11.96% of that amount (10.78% + 1.18%), or \$14.95 million. This  
11 compares to the \$18.90 million projected capital-related cost of the Pool 3 Project, or a  
12 savings of \$3.95 million in the first year.

13 You would then have to consider differences in annual expenses. KAWC  
14 projects annual operating and maintenance expenses for the Pool 3 project to be \$6.02  
15 million.<sup>12</sup> But that amount includes depreciation, which already was considered in the  
16 capital cost calculation. Removing that item results in an operating and maintenance  
17 expense estimate for the Pool 3 Project of \$3.08 million.<sup>13</sup> So the total first-year cost of  
18 the Pool 3 Project would be approximately \$21.98 million.

19 On May 15, 2007, LWC made a presentation to the Frankfort Plant Board where  
20 LWC stated that it would sell water at a wholesale rate of \$1.71 per thousand gallons, in

---

<sup>11</sup> KAWC answer to AG First Data Request No. 9, p. 1.

<sup>12</sup> Direct Testimony of Linda Bridwell, Table 3.

<sup>13</sup> \$6,024,957 less \$2,943,666 for depreciation.

1 addition to the capital cost of a pipeline to connect the two systems.<sup>14</sup> Assuming a first-  
2 year average level of production of 6 MGD (as assumed by KAWC), the cost for water  
3 purchases would be \$3.74 million in the first year.<sup>15</sup> So the first-year cost of the LWC  
4 pipeline would be approximately \$18.69 million.

5 **Q. That cost appears to be less than the Pool 3 Project. Why do you favor the Pool 3**  
6 **Project?**

7 A. There are two reasons. First, it is not at all clear that LWC could either construct the  
8 pipeline or sell water at the price of \$1.71 per 1000 gallons. On July 9, 2003, LWC made  
9 a proposal to the Bluegrass Water Supply Consortium in which it proposed selling water  
10 at its variable cost of production (then equal to \$0.54 per 1000 gallons) plus a charge for  
11 reserving plant capacity. The estimated annual cost in that proposal would have resulted  
12 in a rate of \$2.33 per 1000 gallons.<sup>16</sup> If that higher rate is used, the annual cost increases  
13 by \$1.4 million, or within \$2 million of the Pool 3 Project in the first year.

14 Second, the LWC pipeline becomes considerably more expensive as KAWC uses  
15 more water. At 10 MGD, LWC would charge at least \$6.2 million (assuming \$1.71 per  
16 1000 gallons) per year for purchased water, while KAWC's costs would increase by less  
17 than \$1 million for production costs.

18 Third, and by far the most important, LWC has not made a current proposal to  
19 KAWC. At this point, it is unknown whether a pipeline connecting the two systems  
20 could be sited and constructed in a reasonable period of time. KAWC had tried several

---

<sup>14</sup> KAWC answer to CAWS First Supplemental Data Request No. 3, p. 24.

<sup>15</sup> \$1.71 per 1000 gallons x 6,000 1000 gallons per day x 365 days per year.

<sup>16</sup> KAWC response to Staff First Data Request No. 6.

1 years ago to obtain approval to run a pipeline within the interstate highway right-of-way,  
2 and that permission was denied. Thus, it is not clear whether and how such a pipeline  
3 could be built in a cost-effective manner at the present time. Also, as I mentioned, it is  
4 far from clear what LWC would charge in purchased water costs for a firm reservation of  
5 capacity for KAWC, in addition to production costs.

6 I conclude, therefore, that it is not possible to accurately assess whether the Pool 3  
7 Project is more expensive than the LWC pipeline option. There is a great deal of  
8 uncertainty about the actual cost and feasibility of an LWC pipeline. It appears, however,  
9 that the Pool 3 Project and LWC pipeline are likely to be fairly close in cost in the early  
10 years, with the LWC pipeline becoming more expensive as KAWC needs more water.  
11 Given the need for KAWC to do something immediately, it is my opinion that it is  
12 reasonable for KAWC to undertake the Pool 3 Project, so long as certain conditions are  
13 met.

## 14 Conditions and Conclusion

15 **Q. What conditions do you believe are necessary in order for KAWC to be given**  
16 **permission to undertake the Pool 3 Project?**

17 **A.** I recommend that KAWC should have to agree to three conditions before it is given  
18 approval for the Pool 3 Project.

19 First, as I discussed above, it is not clear that the Pool 3 Project is actually lower  
20 in cost than a pipeline to LWC. I already explained the uncertainties with the LWC  
21 pipeline (both its cost and feasibility). The cost of the Pool 3 Project appears that it could  
22 be more expensive than the LWC pipeline, at least in the early years when the full

capacity of the projects would not be needed. In order to ensure that the Pool 3 Project remains a reasonable least-cost option for KAWC, the Company should agree to limit the amount that it can include in its retail rate base for the capital costs of the project (which would include a limitation on the amount it can recover in depreciation expense). I recommend setting this cost cap equal to KAWC's current projection for the capital cost of the project, which is approximately \$158 million. A cost cap places the burden on KAWC to use contracting, construction, and procurement practices that minimize the cost of the project. Absent a cost cap, neither the Commission nor KAWC's customers have any ability to control those costs, and it would be extremely difficult to audit the Company's construction and procurement practices after the fact to see if it, in fact, acted prudently to minimize the costs of the project. Rather than engage in such "Monday morning quarterbacking," I think it is reasonable for the Commission to impose a cost cap prior to construction. The Company then would know what is expected of it and it would be up to the Company to take whatever actions it can to keep the cost of the project within its estimate. If KAWC cannot do so, then the Company – not its customers – should be responsible for any additional amounts. This condition also ensures that the Pool 3 Project becomes a reasonable least-cost option in fact, and not just on paper.

**Q. What is your second condition?**

A. My second condition is designed to ensure that the Pool 3 Project meets the needs of Central Kentucky well into the future. I am very concerned about KAWC's failure to even attempt to evaluate and implement serious conservation programs, including programs to control its growing non-revenue water problem. I recommend, therefore, that KAWC should be required to retain a qualified conservation consultant to develop a

1 conservation program consistent with best practices in the water industry, including an  
2 aggressive program to cost-effectively reduce non-revenue water. A great deal has been  
3 learned about water conservation since 1994, and it is important for Central Kentucky to  
4 take steps now to improve the efficiency of water consumption in ways that do not  
5 adversely affect the quality of life, economic development, or the scenic beauty of the  
6 region. In the last few years, best practices also have changed significantly regarding  
7 non-revenue water, and KAWC should be required to join those industry leaders in cost-  
8 effectively reducing waste on its system. The Pool 3 Project is an expensive undertaking,  
9 and KAWC must ensure that it meets the needs of Central Kentucky for a very long time.  
10 The next supply project after this one is likely to be extremely costly and even more  
11 difficult to site, plan, and implement. I would expect KAWC to file annual reports with  
12 the Commission, the AG, and other interested parties detailing the efforts undertaken and  
13 the results achieved.

14 **Q. What is your final condition?**

15 A. My third and final condition is designed to ensure that Central Kentucky does not face a  
16 similar decades-long water supply deficit in the future. I recommend, therefore, that  
17 KAWC should be required to file with the Commission a new supply and demand  
18 management plan within six months of the date on which utilization of the new plant  
19 reaches 80% of capacity for one day (unless such utilization is the result of a temporary  
20 outage at KAWC's Richmond Road Station, or other short-term emergency such as a  
21 serious fire). For example, if the new plant has a capacity of 20 MGD, then KAWC  
22 would be required to file a plan once the plant produces 16 million gallons in one day.  
23 That would help avoid the situation we find ourselves in now, where KAWC has

1           effectively used up the margin of safety built into its existing plants in order to serve  
2           average demands, leaving insufficient capacity to serve peak demands.

3   **Q.     What do you conclude?**

4   A.     I conclude that if the Company agrees to abide by the conditions I recommend, it would  
5           be in the public interest for KAWC to construct and operate the Pool 3 Project.

6   **Q.     Does this conclude your direct testimony?**

7   A.     Yes, it does.



## Scott J. Rubin

Attorney + Consultant

333 Oak Lane • Bloomsburg, PA 17815

### **Current Position**

---

Public Utility Attorney and Consultant, Selinsgrove, PA. 1994 to present. I provide legal, consulting, and expert witness services to various organizations interested in the regulation of public utilities.

### **Previous Positions**

---

Lecturer in Computer Science, Susquehanna University, Selinsgrove, PA. 1993 to 2000.

Senior Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1990 to 1994.

I supervised the administrative and technical staff and shared with one other senior attorney the supervision of a legal staff of 14 attorneys.

Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1983 to 1990.

Associate, Laws and Staruch, Harrisburg, PA. 1981 to 1983.

Law Clerk, U.S. Environmental Protection Agency, Washington, DC. 1980 to 1981.

Research Assistant, Rockville Consulting Group, Washington, DC. 1979.

### **Current Professional Activities**

---

Member, American Bar Association, Public Utility Law Section.

Member, American Water Works Association.

Admitted to practice law before the Supreme Court of Pennsylvania, the New York State Court of Appeals, the United States District Court for the Middle District of Pennsylvania, the United States Court of Appeals for the Third Circuit, and the Supreme Court of the United States.

### **Previous Professional Activities**

---

Member, American Water Works Association, Rates and Charges Subcommittee, 1998-2001.

Member, Federal Advisory Committee on Disinfectants and Disinfection By-Products in Drinking Water, U.S. Environmental Protection Agency, Washington, DC. 1992 to 1994.

Chair, Water Committee, National Association of State Utility Consumer Advocates, Washington, DC. 1990 to 1994; member of committee from 1988 to 1990.

Member, Board of Directors, Pennsylvania Energy Development Authority, Harrisburg, PA. 1990 to 1994.

Member, Small Water Systems Advisory Committee, Pennsylvania Department of Environmental Resources, Harrisburg, PA. 1990 to 1992.

Member, Ad Hoc Committee on Emissions Control and Acid Rain Compliance, National Association of State Utility Consumer Advocates, 1991.

Member, Nitrogen Oxides Subcommittee of the Acid Rain Advisory Committee, U.S. Environmental Protection Agency, Washington DC. 1991.

---

**Education**

---

J.D. with Honors, George Washington University, Washington, DC. 1981.

B.A. with Distinction in Political Science, Pennsylvania State University, University Park, PA. 1978.

---

**Publications and Presentations**

---

“Quality of Service Issues,” a speech to the Pennsylvania Public Utility Commission Consumer Conference, State College, PA. 1988.

K.L. Pape and S.J. Rubin, “Current Developments in Water Utility Law,” in *Pennsylvania Public Utility Law* (Pennsylvania Bar Institute). 1990.

Presentation on Water Utility Holding Companies to the Annual Meeting of the National Association of State Utility Consumer Advocates, Orlando, FL. 1990.

“How the OCA Approaches Quality of Service Issues,” a speech to the Pennsylvania Chapter of the National Association of Water Companies. 1991.

Presentation on the Safe Drinking Water Act to the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Seattle, WA. 1991.

“A Consumer Advocate's View of Federal Pre-emption in Electric Utility Cases,” a speech to the Pennsylvania Public Utility Commission Electricity Conference. 1991.

Workshop on Safe Drinking Water Act Compliance Issues at the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Washington, DC. 1992.

Formal Discussant, Regional Acid Rain Workshop, U.S. Environmental Protection Agency and National Regulatory Research Institute, Charlotte, NC. 1992.

S.J. Rubin and S.P. O'Neal, “A Quantitative Assessment of the Viability of Small Water Systems in Pennsylvania,” *Proceedings of the Eighth NARUC Biennial Regulatory Information Conference*, National Regulatory Research Institute (Columbus, OH 1992), IV:79-97.

“The OCA's Concerns About Drinking Water,” a speech to the Pennsylvania Public Utility Commission Water Conference. 1992.

Member, Technical Horizons Panel, Annual Meeting of the National Association of Water Companies, Hilton Head, SC. 1992.

M.D. Klein and S.J. Rubin, “Water and Sewer -- Update on Clean Streams, Safe Drinking Water, Waste Disposal and Pennvest,” *Pennsylvania Public Utility Law Conference* (Pennsylvania Bar Institute). 1992.

Presentation on Small Water System Viability to the Technical Assistance Center for Small Water Companies, Pa. Department of Environmental Resources, Harrisburg, PA. 1993

- “The Results Through a Public Service Commission Lens,” speaker and participant in panel discussion at Symposium: “Impact of EPA's Allowance Auction,” Washington, DC, sponsored by AER\*X. 1993.
- “The Hottest Legislative Issue of Today -- Reauthorization of the Safe Drinking Water Act,” speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, San Antonio, TX. 1993.
- “Water Service in the Year 2000,” a speech to the Conference: “Utilities and Public Policy III: The Challenges of Change,” sponsored by the Pennsylvania Public Utility Commission and the Pennsylvania State University, University Park, PA. 1993.
- “Government Regulation of the Drinking Water Supply: Is it Properly Focused?,” speaker and participant in panel discussion at the National Consumers League's Forum on Drinking Water Safety and Quality, Washington, DC. 1993. Reprinted in *Rural Water*, Vol. 15 No. 1 (Spring 1994), pages 13-16.
- “Telephone Penetration Rates for Renters in Pennsylvania,” a study prepared for the Pennsylvania Office of Consumer Advocate. 1993.
- “Zealous Advocacy, Ethical Limitations and Considerations,” participant in panel discussion at “Continuing Legal Education in Ethics for Pennsylvania Lawyers,” sponsored by the Office of General Counsel, Commonwealth of Pennsylvania, State College, PA. 1993.
- “Serving the Customer,” participant in panel discussion at the Annual Conference of the National Association of Water Companies, Williamsburg, VA. 1993.
- “A Simple, Inexpensive, Quantitative Method to Assess the Viability of Small Water Systems,” a speech to the Water Supply Symposium, New York Section of the American Water Works Association, Syracuse, NY. 1993.
- S.J. Rubin, “Are Water Rates Becoming Unaffordable?,” *Journal American Water Works Association*, Vol. 86, No. 2 (February 1994), pages 79-86.
- “Why Water Rates Will Double (If We're Lucky): Federal Drinking Water Policy and Its Effect on New England,” a briefing for the New England Conference of Public Utilities Commissioners, Andover, MA. 1994.
- “Are Water Rates Becoming Unaffordable?,” a speech to the Legislative and Regulatory Conference, Association of Metropolitan Water Agencies, Washington, DC. 1994.
- “Relationships: Drinking Water, Health, Risk and Affordability,” speaker and participant in panel discussion at the Annual Meeting of the Southeastern Association of Regulatory Commissioners, Charleston, SC. 1994.
- “Small System Viability: Assessment Methods and Implementation Issues,” speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, New York, NY. 1994.

S.J. Rubin, "How much should we spend to save a life?," *Seattle Journal of Commerce*, August 18, 1994 (Protecting the Environment Supplement), pages B-4 to B-5.

S. Rubin, S. Bernow, M. Fulmer, J. Goldstein, and I. Peters, *An Evaluation of Kentucky-American Water Company's Long-Range Planning*, prepared for the Utility and Rate Intervention Division, Kentucky Office of the Attorney General (Tellus Institute 1994).

S.J. Rubin, "Small System Monitoring: What Does It Mean?," *Impacts of Monitoring for Phase II/V Drinking Water Regulations on Rural and Small Communities* (National Rural Water Association 1994), pages 6-12.

"Surviving the Safe Drinking Water Act," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Reno, NV. 1994.

"Safe Drinking Water Act Compliance -- Ratemaking Implications," speaker at the National Conference of Regulatory Attorneys, Scottsdale, AZ. 1995. Reprinted in *Water*, Vol. 36, No. 2 (Summer 1995), pages 28-29.

S.J. Rubin, "Water: Why Isn't it Free? The Case of Small Utilities in Pennsylvania," *Utilities, Consumers & Public Policy: Issues of Quality, Affordability, and Competition, Proceedings of the Fourth Utilities, Consumers and Public Policy Conference* (Pennsylvania State University 1995), pages 177-183.

S.J. Rubin, "Water Rates: An Affordable Housing Issue?," *Home Energy*, Vol. 12 No. 4 (July/August 1995), page 37.

Speaker and participant in the Water Policy Forum, sponsored by the National Association of Water Companies, Naples, FL. 1995.

Participant in panel discussion on "The Efficient and Effective Maintenance and Delivery of Potable Water at Affordable Rates to the People of New Jersey," at The New Advocacy: Protecting Consumers in the Emerging Era of Utility Competition, a conference sponsored by the New Jersey Division of the Ratepayer Advocate, Newark, NJ. 1995.

J.E. Cromwell III, and S.J. Rubin, *Development of Benchmark Measures for Viability Assessment* (Pa. Department of Environmental Protection 1995).

S. Rubin, "A Nationwide Practice from a Small Town in Pa.," *Lawyers & the Internet – a Supplement to the Legal Intelligencer and Pa. Law Weekly* (February 12, 1996), page S6.

"Changing Customers' Expectations in the Water Industry," speaker at the Mid-America Regulatory Commissioners Conference, Chicago, IL. 1996, reprinted in *Water* Vol. 37 No. 3 (Winter 1997), pages 12-14..

"Recent Federal Legislation Affecting Drinking Water Utilities," speaker at Pennsylvania Public Utility Law Conference, Pennsylvania Bar Institute, Hershey, PA. 1996.

"Clean Water at Affordable Rates: A Ratepayers Conference," moderator at symposium sponsored by the New Jersey Division of Ratepayer Advocate, Trenton, NJ. 1996.

“Water Workshop: How New Laws Will Affect the Economic Regulation of the Water Industry,” speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, San Francisco, CA. 1996.

E.T. Castillo, S.J. Rubin, S.K. Keefe, and R.S. Raucher, “Restructuring Small Systems,” *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 65-74.

J.E. Cromwell III, S.J. Rubin, F.C. Marrocco, and M.E. Leevan, “Business Planning for Small System Capacity Development,” *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 47-57.

“Capacity Development – More than Viability Under a New Name,” speaker at National Association of Regulatory Utility Commissioners Winter Meetings, Washington, DC. 1997.

E. Castillo, S.K. Keefe, R.S. Raucher, and S.J. Rubin, *Small System Restructuring to Facilitate SDWA Compliance: An Analysis of Potential Feasibility* (AWWA Research Foundation, 1997).

H. Himmelberger, *et al.*, *Capacity Development Strategy Report for the Texas Natural Resource Conservation Commission* (Aug. 1997).

Briefing on Issues Affecting the Water Utility Industry, Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.

“Capacity Development in the Water Industry,” speaker at the Annual Meeting of the National Association of Regulatory Utility Commissioners, Boston, MA. 1997.

“The Ticking Bomb: Competitive Electric Metering, Billing, and Collection,” speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.

Scott J. Rubin, “A Nationwide Look at the Affordability of Water Service,” *Proceedings of the 1998 Annual Conference of the American Water Works Association*, Water Research, Vol. C, No. 3, pages 113-129 (American Water Works Association, 1998).

Scott J. Rubin, “30 Technology Tips in 30 Minutes,” *Pennsylvania Public Utility Law Conference*, Vol. I, pages 101-110 (Pa. Bar Institute, 1998).

Scott J. Rubin, “Effects of Electric and Gas Deregulation on the Water Industry,” *Pennsylvania Public Utility Law Conference*, Vol. I, pages 139-146 (Pa. Bar Institute, 1998).

Scott J. Rubin, *The Challenges and Changing Mission of Utility Consumer Advocates* (American Association of Retired Persons, 1999).

“Consumer Advocacy for the Future,” speaker at the Age of Awareness Conference, Changes and Choices: Utilities in the New Millennium, Carlisle, PA. 1999.

Keynote Address, \$1 Energy Fund, Inc., Annual Membership Meeting, Monroeville, PA. 1999.

Scott J. Rubin, "Assessing the Effect of the Proposed Radon Rule on the Affordability of Water Service," prepared for the American Water Works Association. 1999.

Scott J. Rubin and Janice A. Beecher, The Impacts of Electric Restructuring on the Water and Wastewater Industry, *Proceedings of the Small Drinking Water and Wastewater Systems International Symposium and Technology Expo* (Phoenix, AZ 2000), pp. 66-75.

American Water Works Association, *Principles of Water Rates, Fees, and Charges, Manual M1 – Fifth Edition* (AWWA 2000), Member, Editorial Committee.

Janice A. Beecher and Scott J. Rubin, presentation on "Special Topics in Rate Design: Affordability" at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.

Scott J. Rubin, "The Future of Drinking Water Regulation," a speech at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.

Janice A. Beecher and Scott J. Rubin, "Deregulation Impacts and Opportunities," a presentation at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.

Scott J. Rubin, "Estimating the Effect of Different Arsenic Maximum Contaminant Levels on the Affordability of Water Service," prepared for the American Water Works Association. 2000.

Janice A. Beecher and Scott J. Rubin, *Deregulation! Impacts on the Water Industry*, American Water Works Association Research Foundation, Denver, CO. 2000.

Scott J. Rubin, Methods for Assessing, Evaluating, and Assisting Small Water Systems, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.

Scott J. Rubin, Consumer Issues in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.

"Be Utility Wise in a Restructured Utility Industry," Keynote Address at Be UtilityWise Conference, Pittsburgh, PA. 2000.

Scott J. Rubin, Jason D. Sharp, and Todd S. Stewart, "The Wired Administrative Lawyer," *5<sup>th</sup> Annual Administrative Law Symposium*, Pennsylvania Bar Institute, Harrisburg, PA. 2000.

Scott J. Rubin, "Current Developments in the Water Industry," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2000.

Scott J. Rubin, "Viewpoint: Change Sickening Attitudes," *Engineering News-Record*, Dec. 18, 2000.

Janice A. Beecher and Scott J. Rubin, "Ten Practices of Highly Effective Water Utilities," *Opflow*, April 2001, pp. 1, 6-7, 16; reprinted in *Water and Wastes Digest*, December 2004, pp. 22-25.

Scott J. Rubin, "Pennsylvania Utilities: How Are Consumers, Workers, and Corporations Faring in the Deregulated Electricity, Gas, and Telephone Industries?" Keystone Research Center. 2001.

- Scott J. Rubin, "Guest Perspective: A First Look at the Impact of Electric Deregulation on Pennsylvania," *LEAP Letter*, May-June 2001, pp. 2-3.
- Scott J. Rubin, Consumer Protection in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
- Scott J. Rubin, Impacts of Deregulation on the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
- Scott J. Rubin, "Economic Characteristics of Small Systems," *Critical Issues in Setting Regulatory Standards*, National Rural Water Association, 2001, pp. 7-22.
- Scott J. Rubin, "Affordability of Water Service," *Critical Issues in Setting Regulatory Standards*, National Rural Water Association, 2001, pp. 23-42.
- Scott J. Rubin, "Criteria to Assess the Affordability of Water Service," White Paper, National Rural Water Association, 2001.
- Scott J. Rubin, Providing Affordable Water Service to Low-Income Families, presentation to Portland Water Bureau, Portland, OR. 2001.
- Scott J. Rubin, Issues Relating to the Affordability and Sustainability of Rates for Water Service, presentation to the Water Utility Council of the American Water Works Association, New Orleans, LA. 2002.
- Scott J. Rubin, The Utility Industries Compared – Water, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Legal Perspective on Water Regulation, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Regulatory Options for Water Utilities, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Overview of Small Water System Consolidation, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
- Scott J. Rubin, Defining Affordability and Low-Income Household Tradeoffs, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
- Scott J. Rubin, "Thinking Outside the Hearing Room," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2002.
- Scott J. Rubin, "Update of Affordability Database," White Paper, National Rural Water Association. 2003.
- Scott J. Rubin, *Understanding Telephone Penetration in Pennsylvania*, Council on Utility Choice, Harrisburg, PA. 2003.

- Scott J. Rubin, *The Cost of Water and Wastewater Service in the United States*, National Rural Water Association, 2003.
- Scott J. Rubin, What Price Safer Water? Presentation at Annual Conference of National Association of Regulatory Utility Commissioners, Atlanta, GA. 2003.
- George M. Aman, III, Jeffrey P. Garton, Eric Petersen, and Scott J. Rubin, Challenges and Opportunities for Improving Water Supply Institutional Arrangements, *Water Law Conference*, Pennsylvania Bar Institute, Mechanicsburg, PA. 2004.
- Scott J. Rubin, Serving Low-Income Water Customers. Presentation at American Water Works Association Annual Conference, Orlando, FL. 2004.
- Scott J. Rubin, Thinking Outside the Bill: Serving Low-Income Water Customers. Presentation at National League of Cities Annual Congress of Cities, Indianapolis, IN. 2004.
- Scott J. Rubin, Buying and Selling a Water System – Ratemaking Implications, *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2005.
- Scott J. Rubin, *Thinking Outside the Bill: A Utility Manager's Guide to Assisting Low-Income Water Customers*, American Water Works Association. 2005.
- Scott J. Rubin, "Census Data Shed Light on US Water and Wastewater Costs," *Journal American Water Works Association*, Vol. 97, No. 4 (April 2005), pages 99-110.
- Scott J. Rubin, Review of U.S. Environmental Protection Agency Notice Concerning Revision of National-Level Affordability Methodology, National Rural Water Association. 2006.
- Robert S. Raucher, et al., *Regional Solutions to Water Supply Provision*, American Water Works Association Research Foundation, Denver, CO. 2007.
- Scott J. Rubin, Robert Raucher, and Megan Harrod, The Relationship Between Household Financial Distress and Health: Implications for Drinking Water Regulation, National Rural Water Association. 2007.

---

**Testimony as an Expert Witness**

---

- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. - Water Division*, Pa. Public Utility Commission, Docket R-00922404. 1992. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate.
- Pa. Public Utility Commission v. Shenango Valley Water Co.*, Pa. Public Utility Commission, Docket R-00922420. 1992. Concerning cost allocation, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. - Water Division*, Pa. Public Utility Commission, Docket R-00922482. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Colony Water Co.*, Pa. Public Utility Commission, Docket R-00922375. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate



*Pa. Public Utility Commission v. Dauphin Consolidated Water Supply Co. and General Waterworks of Pennsylvania, Inc.*, Pa. Public Utility Commission, Docket R-00932604. 1993. Concerning rate design and cost of service, on behalf of the Pa. Office of Consumer Advocate

*West Penn Power Co. v. State Tax Department of West Virginia*, Circuit Court of Kanawha County, West Virginia, Civil Action No. 89-C-3056. 1993. Concerning regulatory policy and the effects of a taxation statute on out-of-state utility ratepayers, on behalf of the Pa. Office of Consumer Advocate

*Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. - Water Division*, Pa. Public Utility Commission, Docket R-00932667. 1993. Concerning rate design and affordability of service, on behalf of the Pa. Office of Consumer Advocate

*Pa. Public Utility Commission v. National Utilities, Inc.*, Pa. Public Utility Commission, Docket R-00932828. 1994. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate

*An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company*, Ky. Public Service Commission, Case No. 93-434. 1994. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Utility and Rate Intervention Division.

*The Petition on Behalf of Gordon's Corner Water Company for an Increase in Rates*, New Jersey Board of Public Utilities, Docket No. WR94020037. 1994. Concerning revenue requirements and rate design, on behalf of the New Jersey Division of Ratepayer Advocate.

*Re Consumers Maine Water Company Request for Approval of Contracts with Consumers Water Company and with Ohio Water Service Company*, Me. Public Utilities Commission, Docket No. 94-352. 1994. Concerning affiliated interest agreements, on behalf of the Maine Public Advocate.

*In the Matter of the Application of Potomac Electric Power Company for Approval of its Third Least-Cost Plan*, D.C. Public Service Commission, Formal Case No. 917, Phase II. 1995. Concerning Clean Air Act implementation and environmental externalities, on behalf of the District of Columbia Office of the People's Counsel.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of the Dayton Power and Light Company and Related Matters*, Ohio Public Utilities Commission, Case No. 94-105-EL-EFC. 1995. Concerning Clean Air Act implementation (case settled before testimony was filed), on behalf of the Office of the Ohio Consumers' Counsel.

*Kennebec Water District Proposed Increase in Rates*, Maine Public Utilities Commission, Docket No. 95-091. 1995. Concerning the reasonableness of planning decisions and the relationship between a publicly owned water district and a very large industrial customer, on behalf of the Maine Public Advocate.

*Winter Harbor Water Company, Proposed Schedule Revisions to Introduce a Readiness-to-Serve Charge*, Maine Public Utilities Commission, Docket No. 95-271. 1995 and 1996. Concerning standards for, and the reasonableness of, imposing a readiness to serve charge and/or exit fee on the customers of a small investor-owned water utility, on behalf of the Maine Public Advocate.

*In the Matter of the 1995 Long-Term Electric Forecast Report of the Cincinnati Gas & Electric Company*, Public Utilities Commission of Ohio, Case No. 95-203-EL-FOR, and *In the Matter of the Two-Year Review of the Cincinnati Gas & Electric Company's Environmental Compliance Plan Pursuant to Section 4913.05, Revised Cost*, Case No. 95-747-EL-ECP. 1996. Concerning the reasonableness of the utility's long-range supply and demand-management plans, the reasonableness of its plan for complying with the Clean Air Act Amendments of 1990, and discussing methods to ensure the provision of utility service to low-income customers, on behalf of the Office of the Ohio Consumers' Counsel..

*In the Matter of Notice of the Adjustment of the Rates of Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 95-554. 1996. Concerning rate design, cost of service, and sales forecast issues, on behalf of the Kentucky Office of Attorney General.

*In the Matter of the Application of Citizens Utilities Company for a Hearing to Determine the Fair Value of its Properties for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Provide such Rate of Return*, Arizona Corporation Commission, Docket Nos. E-1032-95-417, *et al.* 1996. Concerning rate design, cost of service, and the price elasticity of water demand, on behalf of the Arizona Residential Utility Consumer Office.

*Cochrane v. Bangor Hydro-Electric Company*, Maine Public Utilities Commission, Docket No. 96-053. 1996. Concerning regulatory requirements for an electric utility to engage in unregulated business enterprises, on behalf of the Maine Public Advocate.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters*, Public Utilities Commission of Ohio, Case No. 96-106-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 96-107-EL-EFC and 96-108-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 96-101-EL-EFC and 96-102-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company (Phase II)*, Kentucky Public Service Commission, Docket No. 93-434. 1997. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Public Service Litigation Branch.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters*, Public Utilities Commission of Ohio, Case No. 96-103-EL-EFC. 1997. Concerning the costs and procedures associated with the

implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*Bangor Hydro-Electric Company Petition for Temporary Rate Increase*, Maine Public Utilities Commission, Docket No. 97-201. 1997. Concerning the reasonableness of granting an electric utility's request for emergency rate relief, and related issues, on behalf of the Maine Public Advocate.

*Testimony concerning H.B. 1068 Relating to Restructuring of the Natural Gas Utility Industry*, Consumer Affairs Committee, Pennsylvania House of Representatives. 1997. Concerning the provisions of proposed legislation to restructure the natural gas utility industry in Pennsylvania, on behalf of the Pennsylvania AFL-CIO Gas Utility Caucus.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 97-107-EL-EFC and 97-108-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*In the Matter of the Petition of Valley Road Sewerage Company for a Revision in Rates and Charges for Water Service*, New Jersey Board of Public Utilities, Docket No. WR92080846J. 1997. Concerning the revenue requirements and rate design for a wastewater treatment utility, on behalf of the New Jersey Division of Ratepayer Advocate.

*Bangor Gas Company, L.L.C., Petition for Approval to Furnish Gas Service in the State of Maine*, Maine Public Utilities Commission, Docket No. 97-795. 1998. Concerning the standards and public policy concerns involved in issuing a certificate of public convenience and necessity for a new natural gas utility, and related ratemaking issues, on behalf of the Maine Public Advocate.

*In the Matter of the Investigation on Motion of the Commission into the Adequacy of the Public Utility Water Service Provided by Tidewater Utilities, Inc., in Areas in Southern New Castle County, Delaware*, Delaware Public Service Commission, Docket No. 309-97. 1998. Concerning the standards for the provision of efficient, sufficient, and adequate water service, and the application of those standards to a water utility, on behalf of the Delaware Division of the Public Advocate.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters*, Public Utilities Commission of Ohio, Case No. 97-103-EL-EFC. 1998. Concerning fuel-related transactions with affiliated companies and the appropriate ratemaking treatment and regulatory safeguards involving such transactions, on behalf of the Ohio Consumers' Counsel.

*Olde Port Mariner Fleet, Inc. Complaint Regarding Casco Bay Island Transit District's Tour and Charter Service*, Maine Public Utilities Commission, Docket No. 98-161. 1998. Concerning the standards and requirements for allocating costs and separating operations between regulated and unregulated operations of a transportation utility, on behalf of the Maine Public Advocate and Olde Port Mariner Fleet, Inc.

*Central Maine Power Company Investigation of Stranded Costs, Transmission and Distribution Utility Revenue Requirements, and Rate Design*, Maine Public Utilities Commission, Docket No. 97-580.

1998. Concerning the treatment of existing rate discounts when designing rates for a transmission and distribution electric utility, on behalf of the Maine Public Advocate.

*Pa. Public Utility Commission v. Manufacturers Water Company*, Pennsylvania Public Utility Commission, Docket No. R-00984275. 1998. Concerning rate design on behalf of the Manufacturers Water Industrial Users.

*In the Matter of Petition of Pennsgrove Water Supply Company for an Increase in Rates for Water Service*, New Jersey Board of Public Utilities, Docket No. WR98030147. 1998. Concerning the revenue requirements, level of affiliated charges, and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.

*In the Matter of Petition of Seaview Water Company for an Increase in Rates for Water Service*, New Jersey Board of Public Utilities, Docket No. WR98040193. 1999. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 98-101-EL-EFC and 98-102-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Dayton Power and Light Company and Related Matters*, Public Utilities Commission of Ohio, Case No. 98-105-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters*, Public Utilities Commission of Ohio, Case No. 99-106-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

*County of Suffolk, et al. v. Long Island Lighting Company, et al.*, U.S. District Court for the Eastern District of New York, Case No. 87-CV-0646. 2000. Submitted two affidavits concerning the calculation and collection of court-ordered refunds to utility customers, on behalf of counsel for the plaintiffs.

*Northern Utilities, Inc., Petition for Waivers from Chapter 820*, Maine Public Utilities Commission, Docket No. 99-254. 2000. Concerning the standards and requirements for defining and separating a natural gas utility's core and non-core business functions, on behalf of the Maine Public Advocate.

*Notice of Adjustment of the Rates of Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 2000-120. 2000. Concerning the appropriate methods for allocating costs and designing rates, on behalf of the Kentucky Office of Attorney General.

*In the Matter of the Petition of Gordon's Corner Water Company for an Increase in Rates and Charges for Water Service*, New Jersey Board of Public Utilities, Docket No. WR00050304. 2000. Concerning

the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.

*Testimony concerning Arsenic in Drinking Water: An Update on the Science, Benefits, and Costs*, Committee on Science, United States House of Representatives. 2001. Concerning the effects on low-income households and small communities from a more stringent regulation of arsenic in drinking water.

*In the Matter of the Application of The Cincinnati Gas & Electric Company for an Increase in Gas Rates in its Service Territory*, Public Utilities Commission of Ohio, Case No. 01-1228-GA-AIR, *et al.* 2002. Concerning the need for and structure of a special rider and alternative form of regulation for an accelerated main replacement program, on behalf of the Ohio Consumers' Counsel.

*Pennsylvania State Treasurer's Hearing on Enron and Corporate Governance Issues*. 2002. Concerning Enron's role in Pennsylvania's electricity market and related issues, on behalf of the Pennsylvania AFL-CIO.

*An Investigation into the Feasibility and Advisability of Kentucky-American Water Company's Proposed Solution to its Water Supply Deficit*, Kentucky Public Service Commission, Case No. 2001-00117. 2002. Concerning water supply planning, regulatory oversight, and related issue, on behalf of the Kentucky Office of Attorney General.

*Joint Application of Pennsylvania-American Water Company and Thames Water Aqua Holdings GmbH*, Pennsylvania Public Utility Commission, Docket Nos. A-212285F0096 and A-230073F0004. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Pennsylvania Office of Consumer Advocate.

*Application for Approval of the Transfer of Control of Kentucky-American Water Company to RWE AG and Thames Water Aqua Holdings GmbH*, Kentucky Public Service Commission, Case No. 2002-00018. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Kentucky Office of Attorney General.

*Joint Petition for the Consent and Approval of the Acquisition of the Outstanding Common Stock of American Water Works Company, Inc., the Parent Company and Controlling Shareholder of West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 01-1691-W-PC. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Consumer Advocate Division of the West Virginia Public Service Commission.

*Joint Petition of New Jersey-American Water Company, Inc. and Thames Water Aqua Holdings GmbH for Approval of Change in Control of New Jersey-American Water Company, Inc.*, New Jersey Board of Public Utilities, Docket No. WM01120833. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.

*Illinois-American Water Company, Proposed General Increase in Water Rates*, Illinois Commerce Commission, Docket No. 02-0690. 2003. Concerning rate design and cost of service issues, on behalf of the Illinois Office of the Attorney General.

*Pennsylvania Public Utility Commission v. Pennsylvania-American Water Company*, Pennsylvania Public Utility Commission, Docket No. R-00038304. 2003. Concerning rate design and cost of service issues, on behalf of the Pennsylvania Office of Consumer Advocate.

*West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 03-0353-W-42T. 2003. Concerning affordability, rate design, and cost of service issues, on behalf of the West Virginia Consumer Advocate Division.

*Petition of Seabrook Water Corp. for an Increase in Rates and Charges for Water Service*, New Jersey Board of Public Utilities, Docket No. WR3010054. 2003. Concerning revenue requirements, rate design, prudence, and regulatory policy, on behalf of the New Jersey Division of Ratepayer Advocate.

*Chesapeake Ranch Water Co. v. Board of Commissioners of Calvert County*, U.S. District Court for Southern District of Maryland, Civil Action No. 8:03-cv-02527-AW. 2004. Submitted expert report concerning the expected level of rates under various options for serving new commercial development, on behalf of the plaintiff.

*Testimony concerning Lead in Drinking Water*, Committee on Government Reform, United States House of Representatives. 2004. Concerning the trade-offs faced by low-income households when drinking water costs increase, including an analysis of H.R. 4268.

*West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 04-0373-W-42T. 2004. Concerning affordability and rate comparisons, on behalf of the West Virginia Consumer Advocate Division.

*West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 04-0358-W-PC. 2004. Concerning costs, benefits, and risks associated with a wholesale water sales contract, on behalf of the West Virginia Consumer Advocate Division.

*Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 2004-00103. 2004. Concerning rate design and tariff issues, on behalf of the Kentucky Office of Attorney General.

*New Landing Utility, Inc.*, Illinois Commerce Commission, Docket No. 04-0610. 2005. Concerning the adequacy of service provided by, and standards of performance for, a water and wastewater utility, on behalf of the Illinois Office of Attorney General.

*People of the State of Illinois v. New Landing Utility, Inc.*, Circuit Court of the 15<sup>th</sup> Judicial District, Ogle County, Illinois, No. 00-CH-97. 2005. Concerning the standards of performance for a water and wastewater utility, including whether a receiver should be appointed to manage the utility's operations, on behalf of the Illinois Office of Attorney General.

*Hope Gas, Inc. d/b/a Dominion Hope*, West Virginia Public Service Commission, Case No. 05-0304-G-42T. 2005. Concerning the utility's relationships with affiliated companies, including an appropriate level of revenues and expenses associated with services provided to and received from affiliates, on behalf of the West Virginia Consumer Advocate Division.

*Monongahela Power Co. and The Potomac Edison Co.*, West Virginia Public Service Commission, Case Nos. 05-0402-E-CN and 05-0750-E-PC. 2005. Concerning review of a plan to finance the

construction of pollution control facilities and related issues, on behalf of the West Virginia Consumer Advocate Division.

*Joint Application of Duke Energy Corp., et al., for Approval of a Transfer and Acquisition of Control*, Case Kentucky Public Service Commission, No. 2005-00228. 2005. Concerning the risks and benefits associated with the proposed acquisition of an energy utility, on behalf of the Kentucky Office of the Attorney General.

*Commonwealth Edison Company proposed general revision of rates, restructuring and price unbundling of bundled service rates, and revision of other terms and conditions of service*, Illinois Commerce Commission, Docket No. 05-0597. 2005. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.

*Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc.*, Pennsylvania Public Utility Commission, Docket No. R-00051030. 2006. Concerning rate design and cost of service, on behalf of the Pennsylvania Office of Consumer Advocate.

*Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS, and Illinois Power Company d/b/a AmerenIP, proposed general increases in rates for delivery service*, Illinois Commerce Commission, Docket Nos. 06-0070, et al. 2006. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.

*Grens, et al., v. Illinois-American Water Co.*, Illinois Commerce Commission, Docket Nos. 5-0681, et al. 2006. Concerning utility billing, metering, meter reading, and customer service practices, on behalf of the Illinois Office of Attorney General and the Village of Homer Glen, Illinois.

*Commonwealth Edison Company Petition for Approval of Tariffs Implementing ComEd's Proposed Residential Rate Stabilization Program*, Illinois Commerce Commission, Docket No. 06-0411. 2006. Concerning a utility's proposed purchased power phase-in proposal, in behalf of the Illinois Office of Attorney General.

*Illinois-American Water Company, Application for Approval of its Annual Reconciliation of Purchased Water and Purchased Sewage Treatment Surcharges Pursuant to 83 Ill. Adm. Code 655*, Illinois Commerce Commission, Docket No. 06-0196. 2006. Concerning the reconciliation of purchased water and sewer charges, on behalf of the Illinois Office of Attorney General and the Village of Homer Glen, Illinois.

*Illinois-American Water Company, et al.*, Illinois Commerce Commission, Docket No. 06-0336. 2006. Concerning the risks and benefits associated with the proposed divestiture of a water utility, on behalf of the Illinois Office of Attorney General.

*Joint Petition of Kentucky-American Water Company, et al.*, Kentucky Public Service Commission, Docket No. 2006-00197. 2006. Concerning the risks and benefits associated with the proposed divestiture of a water utility, on behalf of the Kentucky Office of Attorney General.

*Aqua Illinois, Inc. Proposed Increase in Water Rates for the Kankakee Division*, Illinois Commerce Commission, Docket No. 06-0285. 2006. Concerning various revenue requirement, rate design, and tariff issues, on behalf of the County of Kankakee.

*Housing Authority for the City of Pottsville v. Schuylkill County Municipal Authority*, Court of Common Pleas of Schuylkill County, Pennsylvania, No. S-789-2000. 2006. Concerning the reasonableness and uniformity of rates charged by a municipal water authority, on behalf of the Pottsville Housing Authority.

*Application of Pennsylvania-American Water Company for Approval of a Change in Control*, Pennsylvania Public Utility Commission, Docket No. A-212285F0136. 2006. Concerning the risks and benefits associated with the proposed divestiture of a water utility, on behalf of the Pennsylvania Office of Consumer Advocate.

*Application of Artesian Water Company, Inc., for an Increase in Water Rates*, Delaware Public Service Commission, Docket No. 06-158. 2006. Concerning rate design and cost of service, on behalf of the Staff of the Delaware Public Service Commission.

*Central Illinois Light Company, Central Illinois Public Service Company, and Illinois Power Company: Petition Requesting Approval of Deferral and Securitization of Power Costs*, Illinois Commerce Commission, Docket No. 06-0448. 2006. Concerning a utility's proposed purchased power phase-in proposal, on behalf of the Illinois Office of Attorney General.

*Petition of Pennsylvania-American Water Company for Approval to Implement a Tariff Supplement Revising the Distribution System Improvement Charge*, Pennsylvania Public Utility Commission, Docket No. P-00062241. 2007. Concerning whether a utility should be permitted to increase the amount of its distribution system investment that could be recovered through an automatic adjustment surcharge, on behalf of the Pennsylvania Office of Consumer Advocate.



Commonwealth of Kentucky  
Before the Public Service Commission

IN THE MATTER OF: :  
THE APPLICATION OF KENTUCKY-AMERICAN :  
WATER COMPANY FOR A CERTIFICATE OF :  
CONVENIENCE AND NECESSITY AUTHORIZING : CASE NO. 2007-00134  
THE CONSTRUCTION OF KENTUCKY RIVER :  
STATION II, ASSOCIATED FACILITIES AND :  
TRANSMISSION MAIN :

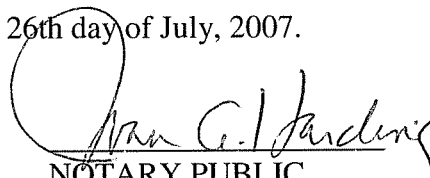
AFFIDAVIT OF SCOTT J. RUBIN

District of Columbia )  
City of Washington )

Scott J. Rubin, being first duly sworn, states the following: The prepared Pre-filed Direct Testimony constitutes the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his belief and knowledge, his statements made are true and correct. Further, Affiant saith not.

  
Scott J. Rubin

SUBSCRIBED AND SWORN to before me this 26th day of July, 2007.

  
NOTARY PUBLIC

My Commission Expires: 4-30-2009