

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF: :
APPLICATION OF WATER SERVICE :
CORPORATION OF KENTUCKY FOR A : CASE NO. 2015-00382
GENERAL ADJUSTMENT IN EXISTING :
RATES :

Direct Testimony of
Scott J. Rubin

on Behalf of
the Kentucky Office of the Attorney General

February 22, 2016

Introduction

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Q. Please state your name and business address.

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

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 cost of service study and proposed rate design filed by Water Service Corporation of Kentucky (“WSCK” or “Company”).

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; the province of Nova Scotia; and the states of Alaska, Arizona, California, Connecticut, Delaware, Illinois, Kentucky, Maine, Maryland, Mississippi, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, and West Virginia. I also have testified as an expert witness before various legislative committees. I also have served as a consultant to the staffs of state utility commissions, as well as to national utility trade associations, and state and local governments throughout the country. Prior to establishing my own consulting and law practice, I was employed by the Pennsylvania Office of Consumer Advocate from 1983 through January 1994 in increasingly responsible positions. From 1990 until I left state government, I was one of two senior attorneys in that Office. Among my other responsibilities in that position, I had a major

1 role in setting its policy positions on water and electric matters. In addition, I was
2 responsible for supervising the technical staff of that Office. I also testified as an expert
3 witness for that Office on rate design and cost of service issues.

4 Throughout my career, I developed substantial expertise in matters relating to the
5 economic regulation of public utilities. I have published articles, contributed to books,
6 written speeches, and delivered numerous presentations, on both the national and state
7 level, relating to regulatory issues. I have attended numerous continuing education
8 courses involving the utility industry. I also have participated as a faculty member in
9 utility-related educational programs for the Institute for Public Utilities at Michigan State
10 University, the American Water Works Association, and the Pennsylvania Bar Institute.
11 Attached as Appendix A is a copy of my curriculum vitae.

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

13 A. Yes, I do. I have testified on numerous occasions as a rate design and cost of service
14 expert. I also have worked as a consultant to local government entities on rate design
15 issues – both to assist government-owned utilities in designing rates and to help
16 government agencies obtain reasonable rates from their utility. I also served on the
17 editorial committee for the preparation of the major rate design manual for the water
18 utility industry, the American Water Works Association’s Manual M1: *Principles of*
19 *Water Rates, Fees, and Charges* (fifth edition published in 2000).

20 In the water sector, I testified on rate design and cost of service issues in several
21 rate cases during the past three years, including cases in California (Apple Valley
22 Ranchos and California Water Service), Connecticut (Aquarion), New Hampshire

1 (Aquarion), Nova Scotia (Halifax Regional Water), and Pennsylvania (City of
2 Bethlehem, Borough of Hanover, City of Lancaster, Pennsylvania-American, and United
3 Water).

4 Summary

5 **Q. What is the primary focus of your direct testimony?**

6 A. My testimony focuses on two issues: (1) evaluating the usefulness of the cost-of-service
7 study ("COSS") filed by the Company; and (2) critiquing the Company's rate design,
8 including the movement toward unified rates between its two service areas. In order to
9 understand these issues, I reviewed the relevant Company testimony, exhibits,
10 workpapers (including electronic spreadsheet files), and responses to data requests, as
11 well as the Company's existing and proposed tariffs.

12 **Q. Please summarize your conclusions and recommendations.**

13 A. My conclusions and recommendations can be summarized as follows:

- 14 • I recommend that the Commission give no weight to the so-called COSS
15 presented by the Company in this case. It is not consistent with standard
16 practice in the water utility industry and it is not a real study of the cost of
17 providing service to different types of customers in different service areas.
- 18 • In my opinion, it would be reasonable for the Commission to begin the
19 process of moving toward consolidated rates in Clinton and Middlesboro,
20 but any such movement toward consolidation should be done with a
21 careful evaluation of the impact on customers' bills.
- 22 • The Company's proposed rate design places excessive increases on more
23 than 1,500 customers in Middlesboro (annual increases of 50% or more
24 which are more than two times the system-average increase of 24.6%).
25 Increases of this magnitude are neither necessary nor reasonable.
- 26 • I have developed a rate design, and a procedure for adjusting that rate
27 design for a lower revenue requirement, that alleviates the problems with

1 the Company's proposal. I recommend that the Commission adopt my
2 proposal.

3 **Cost-of-Service Study**

4 **Q. Did you review WSCK's cost of service study (part of WSCK Exh. 4, beginning on**
5 **p. w/p [t-1])?**

6 A. Yes, I did.

7 **Q. Do you have any concerns with this study?**

8 A. Yes. I find that what the Company calls a cost-of-service study ("COSS") is not really a
9 COSS at all. A standard COSS contains three steps: assignment of components of the
10 revenue requirement to functional costs (for example, water treatment, distribution,
11 storage); allocating functional costs to cost components (such as peak day demand,
12 average demand, fire protection), then distributing those costs to each customer class.
13 Each step of the process is performed using a particular methodology designed to
14 estimate with reasonable precision the reasons why each type of cost is incurred and
15 which types of customers should pay the cost.

16 What the Company calls a COSS does not contain these steps and does not follow
17 any recognized methodology for preparing a COSS. Indeed, the Company's study is
18 really driven by one major assumption that has nothing to do with the actual cost of
19 providing service: the percentage of costs the Company would like to collect through
20 fixed charges.

21 **Q. What is the source of the computer model used by the Company for its COSS?**

22 A. The model was created by the Staff of the Illinois Commerce Commission for a case
23 involving the potential rate consolidation of more than two dozen subsidiaries of WSCK's

1 sister company in that state. I consulted with the Illinois Office of Attorney General on
2 certain aspects of that case, though I did not testify. As I understand it, the purpose of the
3 model was to estimate how potential rate consolidation proposals might relate to rough
4 approximations of the rates that would be in effect on a stand-alone basis for the utilities.
5 The model was not designed to be a full COSS and does not contain many of the
6 assumptions and analyses that would be present in a full COSS. Essentially, the model
7 was prepared for a special purpose and, in my judgment, should not be used in another
8 case for a different purpose.

9 **Q. What do you recommend?**

10 A. I recommend that the Commission give no weight to the so-called COSS presented by the
11 Company in this case. It is not a real study of the cost of providing service to different
12 types of customers in different service areas.

13 **Rate Consolidation**

14 **Q. How should the Commission proceed in the absence of a COSS?**

15 A. The Commission can make certain judgments about the relative level of rates in the two
16 service areas (Clinton and Middlesboro) from the revenue requirements exhibits of the
17 Company and other parties. If it appears that the cost to serve customers (on a per-gallon
18 basis) are similar in the two service areas, then steps should be taken to move toward
19 consolidated rates. Of course, the Commission may decide to move toward consolidated
20 rates even if the cost to serve the two areas are not similar, but there would need to be
21 significant policy justifications for doing so.

1 **Q. Based on your review of the Company's filing, are the costs to provide service**
 2 **similar in the two service areas?**

3 A. No. In response to data request AG 1-23, the Company provided an analysis of the
 4 separate revenue requirements in each service area. Further, Schedule D of the
 5 Company's filing shows the amount of water sold in each service area. Using that
 6 information, I have prepared the following tables to show the cost to provide 1,000
 7 gallons of water in each service area (accepting for the sake of this illustration all aspects
 8 of the Company's claims in this case), as compared to existing revenues in each area.

Service Area	Cost of Service	1,000 Gallons Sold	Cost per 1,000 Gal.
Clinton	\$ 314,656	30,101	\$ 10.45
Middlesboro	\$ 2,277,055	379,960	\$ 5.99
Consolidated	\$ 2,591,711	410,061	\$ 6.32

Service Area	Present Revenues	1,000 Gallons Sold	Revenues per 1,000 Gal.
Clinton	\$ 279,781	30,101	\$ 9.29
Middlesboro	\$ 1,893,683	379,960	\$ 4.98
Consolidated	\$ 2,173,464	410,061	\$ 5.30

9 **Q. What conclusions do you draw from the data in these tables?**

10 A. I conclude that it costs about 75% more to provide service (on a per-gallon basis) in
 11 Clinton than it does in Middlesboro (\$10.45 per 1,000 gallons in Clinton compared to
 12 \$5.99 in Middlesboro). The Company's existing rates mirror this cost difference with
 13 Clinton's rates producing approximately 87% more revenues, on a per-gallon basis, than
 14 Middlesboro (\$9.29 per 1,000 gallons in Clinton compared to \$4.98 in Middlesboro).

1 **Q. Are there reasons other than the cost of service that might support moving toward**
2 **rate consolidation?**

3 A. Yes. Other state utility commissions have found public policy reasons may support
4 moving toward rate consolidation even if the costs of providing service are significantly
5 different. Among those policy reasons are simplification of administration, both for the
6 utility and for regulators (a single set of books and records, one tariff, one annual report,
7 and so on). In addition, when a smaller utility is merged with a larger utility, customers
8 of the smaller utility essentially receive the benefits of the economies of scale of
9 providing utility service by the larger entity. Using the figures in the tables above, for
10 example, consolidating the smaller service area (Clinton) with the larger area reduces
11 Clinton's rates by more than \$4.00 per 1,000 gallons (a 40% reduction) while increasing
12 Middlesboro's rates by \$0.33 per 1,000 gallons (approximately a 5.5% increase). Some
13 regulators believe that consolidation is of sufficient benefit to the customers of the
14 smaller utility that it justifies the paying of a slightly higher rate by the customers of the
15 larger utility.

16 **Q. Do you have a general opinion about the reasonableness of rate consolidation?**

17 A. Yes. I generally support rate consolidation in principle because of the benefits it can
18 provide to the customers of the smaller utility. There are two important caveats,
19 however. First, any consolidation must be undertaken with an in-depth understanding of
20 the impacts on the bills of customers from all affected service areas. Second,
21 consolidation is much easier to justify when one service area is substantially larger than
22 the other. When this is the case, the cost per 1,000 gallons to customers of the larger
23 service area may be just a small fraction of a cent, while the benefits to the customers of

1 the small service area may be measured in dollars per 1,000 gallons. When the two
2 service areas are closer in size, however, the impact on the larger service area may be
3 much higher, making it more difficult to justify consolidation.

4 **Q. Do you have an opinion about the reasonableness of rate consolidation in this case?**

5 A. In my opinion this is a very close case. The two service areas are much closer in size
6 than I would like to see in a consolidation scenario. As I showed above, consolidation
7 would cause the revenues in Middlesboro to be about 5-6% in excess of the cost of
8 service. While the benefits to customers in Clinton would be substantial, it is difficult to
9 justify complete consolidation at this time. In my judgment, though, it would be
10 reasonable to make some movement toward consolidation in this case, so that some
11 benefit can be provided to customers in Clinton while reducing somewhat the effect of
12 consolidation on the rates in Middlesboro. The consolidation recommended by the
13 company, however, is unreasonable and should not be adopted.

14 **Rate Design**

15 **Q. Has the Company proposed any changes in the design of its rates?**

16 A. Yes. In addition to consolidating the rates in Clinton and Middlesboro, the Company also
17 proposes a significant re-design of those rates. At the present time, the rates consist of a
18 minimum charge that varies with meter size and a series of six consumption blocks with
19 declining block rates. That is, the more water a customer uses, the lower the charge per
20 1,000 gallons. Further, the block sizes are not identical between the two service areas.
21 For example, in Clinton the minimum usage allowance for a customer with a 1-inch

1 meter is 5,300 gallons per month, while in Middlesboro the minimum allowance for a
2 1-inch customer is 6,000 gallons per month.

3 WSCCK is proposing to make the minimum allowances the same in both service
4 areas and to eliminate the declining block rates entirely, so that all water consumption is
5 charged at the same rate per 1,000 gallons.

6 **Q. Did the Company evaluate the effect of its rate consolidation and rate design
7 proposals on customers of both service areas?**

8 A. No. The Company only looked at the effect on the average customer in each service area.
9 The Company has more than 7,000 customers, but it did not evaluate the effects of its
10 proposals on a wide range of customers.

11 **Q. Have you analyzed the effect of the Company's proposal on its customers?**

12 A. Yes. Using data provided by the Company in response to data request Staff 1.1, I
13 analyzed the effect of the Company's rate design and consolidation proposal on each of
14 its more than 7,000 customers. For each customer, I calculated the annual bill under
15 present rates and WSCCK-proposed rates. I then calculated the percentage increase in the
16 annual cost of water service for each customer and compiled the results. I present the
17 results graphically on Schedule SJR-1.

18 **Q. Please describe how to interpret the graph on Schedule SJR-1.**

19 A. The left (or y) axis is the percent of customers in each service area. The bottom (or x)
20 axis is the annual percent change in the bill under the Company's proposed rates. The
21 graph shows two lines that are often referred to as distribution curves. The dashed line
22 shows Clinton customers; the solid line shows Middlesboro customers.

1 To illustrate how to interpret this graph, I would suggest starting on the left axis
2 and going up to 70%. Following this line across the graph will let us see the maximum
3 rate impact on 70% of customers in each service area. If we follow across until we hit
4 the dashed (Clinton) line, we see that it intersects the bottom axis at 0%. This means that
5 70% of Clinton customers will have a rate reduction or no change in their annual water
6 bill under the Company's proposal. The remaining 30% of customers (the dashed line
7 continues up and to the right) in Clinton will see their annual bills increase as a result of
8 the Company's proposal, even though consolidation is supposed to reduce the bills of
9 customers in the smaller, higher-cost service area.

10 If we continue along the 70% line until it hits the solid (Middlesboro) graph, we
11 see that it intersects the bottom axis at about 45%. This means that 70% of Middlesboro
12 customers will have annual increases of 45% or less under the Company's proposal. The
13 other 30% of customers will have their bills go up by more than 45%.

14 As we continue to review the graph, two other important points emerge:

- 15 • About 10% of Clinton customers will have increases of 20% or more in
16 their annual bills under the Company's proposal;
- 17 • Almost 25% of Middlesboro customers will have increases of 50% or
18 more in their annual bills, compared to a system-average increase of
19 24.6%, or more than twice the average increase;

20 In short, these are the kinds of problems created when there is a significant change in the
21 rate design without evaluating customer impacts over a wide range of usage patterns.

22 **Q. What are the specific aspects of the Company's rate design proposal that are of**
23 **greatest concern to you?**

1 A. The most significant problems are those I listed above: Clinton customers who see their
2 bills increase (especially those whose bills would increase by 20% or more) when rates
3 are supposed to be going down; and Middlesboro customers whose bills increase by more
4 than 50% (twice the system-average increase).

5 **Q. What types of customers in Clinton would have increases of 20% or more under the**
6 **Company's proposal?**

7 A. There are 80 customers in Clinton who are in this category. They are all customers with
8 smaller meters (5/8-inch or 3/4-inch) who use water near the minimum of 1,000 gallons
9 each month. The Company is proposing to increase the minimum charge for these
10 customers in Clinton from \$12.47 per month currently to \$15.53 per month under
11 proposed rates. For the average customer, this increase is offset by a significant decrease
12 in the rate per 1,000 gallons. For customers who use near the minimum, however, there
13 is no offset and their bills would go up almost 25%.

14 **Q. What types of customers in Middlesboro would have their bills increase by 50% or**
15 **more under the Company's proposal?**

16 A. More than 1,500 customers in Middlesboro would see their bills increase by 50% or more
17 under the Company's proposed rate design. Most of these are customers with smaller
18 meters who use near the minimum allowance of 1,000 gallons per month. In
19 Middlesboro, the minimum charge would increase from \$9.42 presently to \$15.53. For
20 customers who rarely use more than the minimum, their bills would increase significantly
21 without receiving the benefit of a lower price per 1,000 gallons for water. In addition,
22 there are 26 government and small business accounts with 2-inch meters who would see
23 their bills increase by about 55%. Accounts of this size have a minimum allowance of

1 21,400 gallons per month and these heavily impacted customers typically use close to
2 that minimum amount. The Company is proposing to increase their minimum charge
3 from \$84.14 per month to \$130.83 per month (an increase of 55%).

4 **Q. Is there a better way to design rates to move toward consolidated pricing?**

5 A. Yes. I have designed a set of rates that moves close to consolidated pricing while
6 minimizing the types of unreasonable results I discussed above. I show these rates on
7 Schedule SJR-2. The important aspects of this rate design are as follows:

- 8 • Minimum usage allowances are eliminated and replaced with customer
9 charges (also known as meter charges) that vary by meter size;
10 consequently customers pay for each 1,000 gallons of water they use;
- 11 • As a transitional measure, I have used meter size ratios that are
12 approximately one-half of the meter capacity ratios developed by the
13 American Water Works Association;
- 14 • In Clinton, all consumption is billed at the rate of \$4.58 per 1,000 gallons,
15 which is the lowest existing consumption rate in Clinton (currently
16 available only to customers who use more than 100,000 gallons in a
17 month);
- 18 • In Middlesboro, consumption in excess of 100,000 gallons per month is
19 charged at a rate of \$3.439 per 1,000 gallons, which is a 24.6% increase
20 over the existing rate (that is, an average increase);
- 21 • All other consumption in Middlesboro is charged at a rate of \$4.454 per
22 1,000 gallons, which is about 12 cents per 1,000 gallons less than the
23 Clinton rate.

24 **Q. Why do you prefer the rate design in Schedule SJR-2 to the rates proposed by the**
25 **Company?**

26 A. My proposed rate design is much fairer to customers and moves toward consolidated
27 rates in a manner that avoids some of the extreme bill impacts of achieving consolidated
28 rates immediately. For many years the water industry has been moving away from

1 minimum allowances which customers can perceive as being unfair to lower-use
2 customers. Indeed, minimum allowances can give customers the perception that a certain
3 amount of water is "free" which is inconsistent not only with the facts, but also with the
4 need to use water resources wisely and efficiently. In addition, my proposal collects
5 slightly more revenues than the Company proposed from Clinton customers.

6 **Q. Did you analyze the bill impacts associated with your rate design proposal?**

7 A. Yes, I did. Schedule SJR-3 shows a graph similar to Schedule SJR-1, but using my
8 proposed rate design. It can be seen from that graph that my proposal essentially
9 eliminates bill increases of more than 50% in Middlesboro. It also essentially eliminates
10 bill increases of more than 10% in Clinton. Further, my proposal is fairer in that a few
11 customers who do not use the minimum allowance would see their bills decline, since
12 they would no longer be paying for water that they do not use.

13 **Q. What do you recommend?**

14 A. I recommend that the Commission begin moving toward consolidated rates by adopting
15 my proposed rate design.

16 **Q. If the Commission determines that the Company's revenue requirement is less than
17 the Company has proposed, how would you design rates?**

18 A. I would recommend that the Commission design rates to collect a lesser revenue
19 requirement by using the following procedure. First, all Clinton rates should remain as I
20 propose. Most Clinton customers are receiving significant rate reductions under this
21 proposal and I would not lower those rates further. Second, in Middlesboro, I would use
22 the customer charges I proposed and reduce both consumption charges by equal

1 percentages to achieve the revenue requirement. Middlesboro customers are bearing the
2 entire rate increase plus they are paying an additional amount to move toward
3 consolidation with Clinton. It is only fair, therefore, that Middlesboro customers should
4 receive the entire benefit of any reduction in the revenue requirement from the level
5 proposed by the Company.

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

7 A. Yes, it does.