

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF CANNONSBURG WATER DISTRICT FOR RATE ADJUSTMENT FOR SMALL UTILITIES PURSUANT TO 807 KAR 5:076	)	CASE NO.
	)	2018-00376

CANNONSBURG WATER DISTRICT'S UNACCOUNTED-FOR WATER LOSS REDUCTION PLAN, SURCHARGE AND MONITORING	)	CASE NO.
	)	2014-00267

ORDER

On November 13, 2018, Cannonsburg Water District (Cannonsburg District) filed an application (Application) requesting to adjust its monthly water service rates pursuant to the procedures set forth in 807 KAR 5:076. The case is docketed as Case No. 2018-00376. To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated December 19, 2018, which among other things required the Commission Staff (Staff) to file a report containing its findings regarding Cannonsburg District's Application. In its February 25, 2019 Order, the Commission amended the procedural schedule to permit Cannonsburg District additional time to submit documentation<sup>1</sup> required for Staff to complete its review and to formulate its findings. An evidentiary hearing was held on April 25, 2019, to collect evidence

---

<sup>1</sup> The fiscal court minutes authorizing Cannonsburg to pay compensation of \$6,000 per month to its commissioners and the actual amortization schedule for the Kentucky Infrastructure Authority loan that was authorized in Case No. 2018-00247, *Electronic Application of Cannonsburg Water District to Issue Securities Pursuant to KRS 278.300* (Ky. PSC Aug. 15, 2018).

concerning Cannonsburg District's water loss reduction plans and procedures, including but not limited to, its responses to Commission Staff's Third Request for Information issued on April 4, 2019, in Case No. 2014-00267.<sup>2</sup>

In its Application, Cannonsburg District provided a revenue requirement schedule showing that it could justify a revenue increase of \$240,921, or 11.01 percent.<sup>3</sup> The rates requested by Cannonsburg District would increase the monthly bill of a typical residential customer using 4,000 gallons per month by \$4.70, from \$42.68 to \$47.38, or approximately 11.01 percent.<sup>4</sup> On March 19, 2019, Staff issued a report (Staff Report) summarizing its findings regarding Cannonsburg District's requested rate adjustment. In its Staff Report, Staff applied an 88 percent operating ratio to Cannonsburg District's pro forma operating expenses and calculated Cannonsburg District's Overall Revenue Requirement of \$2,465,955. A revenue increase of \$93,534, or 4.08 percent is necessary to generate the Overall Revenue Requirement.

On March 29, 2019, Cannonsburg District filed with the Commission its comments on Staff's report, wherein it accepted Staff's findings and agreed that it would implement the increase to the wholesale water rate. With its comments, Cannonsburg District waived its right to a formal hearing be held.<sup>5</sup> On April 1, 2019, Cannonsburg District filed copies of the customer notification letters informing the city of Greenup and Big Sandy Water District of the increase in the wholesale water rate. According to Cannonsburg

---

<sup>2</sup> Case No. 2014-00267, *Cannonsburg Water District's Unaccounted-for Water Loss Reduction Plan, Surcharge and Monitoring* (Ky. PSC Order to establish case Aug. 7, 2014).

<sup>3</sup> Case No. 2018-00376, Application, Attachment 4, Revenue Requirement.

<sup>4</sup> *Id.* at Attachment 1, Customer Notice.

<sup>5</sup> *Id.*, Cannonsburg District's comments to the Staff Report filed March 29, 2019.

District, the customer notice letters were hand-delivered to the two wholesale water customers on March 27, 2019.

On April 22, 2019, Cannonsburg District filed its motion for surcharge requesting the Commission approve a new monthly water loss reduction surcharge of \$4.00 per active meter to be effective for four years. Cannonsburg District asked the Commission to base its decision on the evidence in the record of Case No. 2018-00376 and Case No. 2014-00267, and the evidence to be presented at the hearing scheduled for April 25, 2019.

On April 25, 2019, the Commission heard testimony and took evidence from Cannonsburg District in support of its motion for a surcharge that outlined its plan to generate approximately \$170,000 per year. This surcharge revenue will allow Cannonsburg District to implement its Phase I-Zone Metering Project. The Phase I-Zone Metering Project, estimated by Bell Engineering to cost approximately \$987,000, would include installing 36 to 43 new zone meters and replacing the 10 existing zone meters.<sup>6</sup>

#### BACKGROUND

Cannonsburg District is a water district organized pursuant to KRS Chapter 74, provides water service to approximately 3,947 residential, commercial, and industrial customers located in Boyd and Greenup counties, Kentucky.<sup>7</sup> Cannonsburg District's last general rate adjustment occurred in 2012.<sup>8</sup> In its Order entered June 4, 2012, the

---

<sup>6</sup> Case No. 2018-00376, Cannonsburg Motion for Surcharge, (filed Apr. 19, 2019); April 25, 2019, H.V.T. 1:04:32-1:14:15; Exhibit 6: 1:17:50-1:30:30.

<sup>7</sup> *Annual Report of Cannonsburg Water District to the Public Service Commission for the Calendar Year Ended December 31, 2017* (2017 Annual Report) at pp. 12 and 48 of 66.

<sup>8</sup> Case No. 2011-00217, *Application of Cannonsburg Water District for (1) Approval of Emergency Rate Relief and (2) Approval of the Increase in Nonrecurring Charges* (Ky. PSC June 4, 2012).

Commission approved a water loss surcharge in Case No. 2011-0021, in which it also ordered Cannonsburg District to file a comprehensive unaccounted-for water loss reduction plan.<sup>9</sup> The Commission rejected the initial proposed plan filed by Cannonsburg District on September 21, 2012.<sup>10</sup> The Commission ultimately accepted a series of filings, including Cannonsburg District's filings on June 6, 2014, June 25, 2014, and July 17, 2014, as a sufficient water loss detection plan (2014 Plan) that was described as a required step to gather the necessary information to eventually file the required comprehensive unaccounted-for water loss reduction plan.<sup>11</sup> On August 7, 2014, the Commission approved the water loss detection plan or 2014 Plan in its opening Order for Case No. 2014-00267, which was established to monitor the use of the surcharge funds collected for water loss efforts.<sup>12</sup> The 2014 Plan consisted of installing 10 zone meters and 14 bypass meters and Cannonsburg District was ordered to file monthly reports on the status of installation and the use of surcharge funds. However, Cannonsburg District did not timely file the required reports and did not update the Commission on the status

---

<sup>9</sup> *Id.*, (June 4, 2012)

<sup>10</sup> *Id.*, (Sept. 21, 2012).

<sup>11</sup> *Id.*, (Filings on June 6, 2014, June 25, 2014, and July 17, 2014).

<sup>12</sup> Case No. 2014-00267, (August 7, 2014).

of the installation of the 10 zone meters from the 2014 Plan.<sup>13</sup> Tim Webb became the general manager of Cannonsburg District in January 2016.<sup>14</sup> At the hearing on April 25, 2019, Mr. Webb testified to the initiatives he undertook as general manager at Cannonsburg District, including the steps that he has taken to improve the system and improve the amount of water loss. Mr. Webb has filed reports on behalf of Cannonsburg District and has remained in compliance with the monthly reporting requirements of the August 7, 2014 and December 12, 2014 Orders since the time he was hired as general manager.<sup>15</sup> Mr. Webb testified to the improvement in water loss, decreasing from approximately 55 percent in January 2017, to approximately 27 percent in January 2019.<sup>16</sup>

#### WATER LOSS

Pursuant to 807 KAR 5:066, Section 6(3), water loss is limited to 15 percent for ratemaking purposes. As noted in the Staff Report, Cannonsburg District's actual test-

---

<sup>13</sup> *Id.*, (Dec. 12, 2014) Order compelling Cannonsburg to file the required monthly reports and report on the status of meter installation and comprehensive unaccounted-for water loss reduction plan.; (January 6, 2015), Cannonsburg District reported on installation of meters in November 2014; (March 23, 2015), Staff's 2<sup>nd</sup> DR Responses: Cannonsburg District reported to the Commission that the meters installed in November 2014 were defective and Cannonsburg District knew in early January 2015 that the meters were defective and would not be replaced until April 2015; (April 13, 2015), The Commission filed an Order compelling Cannonsburg District to comply with Orders of August 2014 and December 2014 and denied a motion for extension. The Order clarified that the Commission should be notified within 5 days of meter installation and that Cannonsburg District should be reading the replacement meters during the reading cycle immediately following their installation. The Order also clarified that Cannonsburg District should file a Surcharge Report, Water Loss Report and report on comprehensive unaccounted-for water loss reduction plan. (July 31, 2015), Cannonsburg District reported that CI Thornburg replaced the defective meters but they were not working.

<sup>14</sup> April 25, 2019, H.V.T. 5:00-5:31.

<sup>15</sup> *Id.*, H.V.T. 10:54-12:30.

<sup>16</sup> *Id.*, H.V.T. 12:30-17:11.

year water loss was 39.19 percent or 24.19 percent above the allowable limit. Accordingly, Staff reduced test-year expenses by \$373,853.<sup>17</sup>

The Commission places greater emphasis on monitoring utilities that consistently exceed the fifteen 15 percent unaccounted-for water loss threshold.<sup>18</sup> The Commission recognizes the actions taken to reduce Cannonsburg District's unaccounted-for water loss that Mr. Webb testified to at the hearing on April 25, 2019, decreasing from approximately 55 percent in January 2017, to approximately 27 percent in January 2019.<sup>19</sup> Additionally, the Commission is encouraged by the proposal for the Phase-I Zone Metering Project filed to address Cannonsburg District's unaccounted-for water loss and awaits the revised and updated plans to be filed as the estimates are refined.<sup>20</sup>

In Case No. 2011-00217, the Commission found that Cannonsburg District's unaccounted-for water loss was 29.91 percent, which was 14.91 percent above the 15 percent allowable limit established in Section 6(3) of 807 KAR 5:066.<sup>21</sup> In that proceeding, the Commission reduced Cannonsburg District's purchased water expense by \$221,348

---

<sup>17</sup> Staff Report, page 15.

<sup>18</sup> See Case No. 2019-00041, *Electronic Investigation into Excessive Water Loss by Kentucky's Jurisdictional Water Utilities* (Ky. PSC Mar. 12, 2019) (investigating jurisdictional water utilities that report over 35 percent water loss in their annual reports on file with the Commission).

<sup>19</sup> April 25, 2019, H.V.T. 12:30-17:11.

<sup>20</sup> Case No. 2018-00376, Cannonsburg Motion for Surcharge, (filed Apr. 19, 2019); April 25, 2019, H.V.T. 1:04:32-1:14:15; Exhibit 6: 1:17:50-1:30:30.

<sup>21</sup> Unaccounted-for water loss. Except for purchased water rate adjustments for water districts and water associations, and rate adjustments pursuant to KRS 278.023(4), for ratemaking purposes a utility's unaccounted-for water loss shall not exceed fifteen (15) percent of total water produced and purchased, excluding water used by a utility in its own operations. Upon application by a utility in a rate case filing or by separate filing, or upon motion by the commission, an alternative level of reasonable unaccounted-for water loss may be established by the commission. A utility proposing an alternative level shall have the burden of demonstrating that the alternative level is more reasonable than the level prescribed in this section.

to comply with 15 percent limitation. Finding that the water loss expense reduction would severely restrict cash flow, and would impair Cannonsburg District's ability to take the necessary action to focus on its leak detection and repair, the Commission authorized the assessment of a monthly water-loss surcharge of \$5.53. The surcharge was assessed to each customer for a period of 36 months or until \$700,875 was collected<sup>22</sup> and its use was restricted to fund Cannonsburg District's water loss reduction efforts.<sup>23</sup>

Upon its own motion, the Commission established Case No. 2014-00267 to monitor Cannonsburg District's utilization of the line-loss surcharge proceeds. To date, the Commission has authorized Cannonsburg District to spend \$133,562 of its surcharge proceeds to zone its system with ten master meters and fourteen bypass meters to allow Cannonsburg District to gather the information necessary to develop its comprehensive unaccounted-for water loss reduction plan.<sup>24</sup> The assessment of the surcharge granted in Case No. 2011-00217 concluded in 2015. As of February 28, 2019, Cannonsburg District reported a balance of \$521,035 in the separate interest-bearing surcharge account.<sup>25</sup> The Commission finds that Cannonsburg District's motion for surcharge filed on April 22, 2019, should be granted. The Commission finds that Cannonsburg District should be permitted to assess a surcharge over a 48-month period as a reasonable means of funding its continuing unaccounted-for water loss reduction efforts. Further,

---

<sup>22</sup> Case No. 2011-00217, Order dated June 4, 2012 at 9, Ordering Paragraph 4.

<sup>23</sup> *Id.* at 7, Finding Paragraph 5.

<sup>24</sup> Case No. 2014-00267, Order dated Aug. 7, 2014, at 4, Ordering Paragraph 1.

<sup>25</sup> *Id.*, February 2019 Surcharge Report filed March 27, 2019.

Cannonsburg District should be permitted to assess a surcharge to fund its unaccounted-for water loss reduction efforts subject to it filing with the Commission an updated and revised estimate and plan for the Phase-I Zone Metering Project created by a certified engineer.

TEST PERIOD

The calendar year ended December 31, 2017, was used as the test year to determine the reasonableness of Cannonsburg District’s existing and proposed water rates, as required by 807 KAR 5:076, Section 9.

SUMMARY OF REVENUE AND EXPENSES

The Staff Report summarizes Cannonsburg District’s pro forma income statement as follows:

	<u>2017 Annual Report</u>	<u>Pro Forma Adjustments</u>	<u>Pro Forma Operations</u>
Operating Revenues:			
Revenues from Water Sales:	\$ 305,513	\$ 6,017	\$ 311,530
Other Water Revenues:	155	0	155
	<u>305,668</u>	<u>6,017</u>	<u>311,685</u>
Total Operating Revenues			
Operating Expenses:			
Operation & Maintenance:	280,806	271	281,077
Depreciation	27,804	(15,479)	12,325
Amortization	0	1,000	1,000
	<u>308,610</u>	<u>(14,209)</u>	<u>294,402</u>
Utility Operating Expenses			
Net Utility Operating Income	<u>\$ (2,942)</u>	<u>\$ 20,226</u>	<u>\$ 17,284</u>

REVENUE REQUIREMENTS

In its report, Staff determined that Cannonsburg District’s pro forma operating revenues and expenses for its water division support an increase in revenues from water sales of \$93,534, or 4.08 percent, as shown below.

Pro Forma Operating Expenses	\$ 2,124,633
Divide by: Operating Ratio	<u>88%</u>
Subtotal	2,414,356
Add: Average Annual Interest Expense	<u>51,599</u>
Total Revenue Requirement	2,465,955
Less: Interest Income	(2,973)
Other Operating Revenue	<u>(78,088)</u>
Revenue Required from Rates	2,384,894
Less: Normalized Revenues from Water Sales	<u>(2,291,360)</u>
Required Revenue Increase/(Decrease)	<u>\$ 93,534</u>
Percentage Increase	<u>4.08%</u>

#### RATE DESIGN

The Commission finds that, in the absence of a cost-of-service study, the across-the-board method as proposed by Cannonsburg District and modified by Staff in its report is an appropriate and equitable method to allocate the increased cost to Cannonsburg District's customers. The Commission is applying the across-the-board increase to the following rates: retail, wholesale, and Leak Adjustment. The Commission agrees with Staff that Cannonsburg District should be required to evaluate the rates it charges for fire sprinkler service prior to filing its next rate case, to ensure that these rates generate the revenue necessary to cover the cost of providing the fire sprinkler services.

The rates in the Appendix attached to this Order will produce water rate revenues of approximately \$2,384,894, the revenue from water sales determined to be reasonable by the Commission herein. These rates will increase a typical residential customer bill that uses an average 4,000 Gallons per month from \$42.68 to \$44.41, an increase of \$1.73, or approximately 4.05 percent.

The Commission, after consideration of the evidence of record and being otherwise sufficiently advised, finds that:

1. The findings contained in the Staff Report are supported by the evidence of record and are reasonable.
2. The water service rates proposed by Cannonsburg District should be denied.
3. The water service rates set forth in the Appendix to this Order are fair, just, and reasonable and should be approved.
4. Prior to filing its next rate application, Cannonsburg District should prepare an analysis that evaluates the fire sprinkler rates to ensure that they generate the revenue necessary to cover the cost of providing the fire sprinkler services.
5. Cannonsburg should record its current policies and procedures for leak detection and file it with the Commission as its leak detection plan.
6. Cannonsburg should file its current map of zones, meters and bypass meters with the Commission.
7. Cannonsburg District should be granted an interim surcharge of \$4.00, subject to it filing an updated and amended report on the Phase-I Zone Metering Project to combat water loss.
8. Cannonsburg District should be authorized to assess a monthly surcharge of \$4.00 that will continue for a period of 48 months or until the total amount of the surcharge assessed equals \$680,000, whichever occurs first subject to the following conditions:

a. Within 90 days of the entry of this Order, Cannonsburg District should file with the Commission an updated and revised estimate for the Phase-I Zone Metering Project from a certified engineer.

b. Cannonsburg District should deposit surcharge collections in a separate interest-bearing account. It may use the account established for the surcharge granted in Case No. 2011-00217.

c. Cannonsburg District should continue to comply with Orders filed in Case No. 2011-00217 and Case No. 2014-00267, requiring it to file the three monthly reports: for the billing activity and requests for disbursements from the surcharge account/accounts, the activity report on operations to reduce water loss, and the water loss report.

d. Cannonsburg District's failure to comply with any conditions attached to its assessment of the surcharge should result in termination of the surcharge and the refund of all surcharge proceeds previously collected.

9. Cannonsburg District should record its decisions and the outcomes, both positive and negative, with regard to the Phase-I Zone Metering Project. It should include its efforts in its monthly reports to the Commission because Cannonsburg District's success in reducing its unaccounted-for water loss could potentially be applied to help other water systems in Kentucky with similar concerns.

10. Cannonsburg District should file updates to its contracts with the City of Ashland, Big Sandy, and the City of Greenup.

IT IS THEREFORE ORDERED that:

1. The findings contained in the Staff Report are adopted and incorporated by reference into this Order as if fully set out herein.

2. The water rates proposed by Cannonsburg District are denied.

3. The water rates set forth in the Appendix to this Order are approved for services rendered by Cannonsburg District on and after the date of this Order.

4. Prior to filing its next rate application, Cannonsburg District shall prepare an analysis that evaluates the fire sprinkler rates to ensure that they generate the revenue necessary to cover the cost of providing the fire sprinkler services.

5. Cannonsburg District is authorized to assess a monthly surcharge of \$4.00 that will continue for a period of 48 months or until the total amount of the surcharge assessed equals \$680,000, whichever occurs first subject to the following conditions:

a. Within 90 days of the entry of this Order, Cannonsburg District shall file with the Commission an updated and revised estimate for the Phase-I Zone Metering Project from a certified engineer.

b. Cannonsburg District shall deposit surcharge collections in a separate interest-bearing account.

c. Cannonsburg District shall not withdraw any surcharge proceeds from the separate interest-bearing account prior to the Commission's approval the disbursement.

d. Cannonsburg District shall continue to comply with Orders filed in Case No. 2011-00217 and Case No. 2014-00267, requiring it to file the three monthly reports for: the billing activity and requests for disbursements from the surcharge

account/accounts, the activity report on operations to reduce water loss, and the water loss report.

e. Cannonsburg District has represented to the Commission it will seek financing from Kentucky Infrastructure Authority to complete the funding efforts of its proposed Phase-I Zone Metering Project and shall inform the Commission in writing of the status of its efforts to that end as part of its monthly activity report on operations to reduce water loss.

f. Cannonsburg District shall record its steps with regard to the Phase-I Zone Metering Project and include its efforts in its monthly reports to the Commission in Case No. 2014-00267 to inform the Commission of potential methods that could combat unaccounted-for water loss in other water systems in Kentucky.

g. Cannonsburg District's failure to comply with any conditions attached to its assessment of the surcharge will result in termination of the surcharge and the refund of all surcharge proceeds previously collected.

6. Cannonsburg shall record its current policies and procedures for leak detection and file it with the Commission as its leak detection plan within 90 days of the date of filing of this Order.

7. Cannonsburg District shall file updated copies of its contracts with the City of Ashland, Big Sandy, and the City of Greenup with the Commission within 90 days of the date of filing of this Order.

8. Within 20 days of the date of entry of this Order, Cannonsburg District shall file with this Commission, using the Commission's electronic Tariff Filing System, new

tariff sheets setting forth the rates and charges approved herein and their effective date, and stating that the rates and charges were authorized by this Order.

9. Within 20 days of the date of entry of this Order, Cannonsburg shall file its current map of zones, meters and bypass meters as prepared by a certified Kentucky engineer with the Commission.

10. This case will remain open for the consideration of the surcharge based upon the filed report on the Phase-I Zone Metering Project to determine whether the amount of the surcharge or the length of time the surcharge shall remain in effect should be adjusted either way.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

By the Commission

ENTERED  
MAY 13 2019  
KENTUCKY PUBLIC  
SERVICE COMMISSION

ATTEST:

  
For Executive Director

Case No. 2018-00376  
Case No. 2014-00267

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2018-00376 DATED **MAY 13 2019**

The following rates and charges are prescribed for the customers in the area served by Cannonsburg Water District. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under the authority of the Commission prior to the effective date of this Order.

Monthly Rates

5/8 x 3/4-Inch Meter

First	2,000	Gallons	\$ 25.33	Minimum Bill
Next	3,000	Gallons	9.54	per 1,000 Gallons
Next	15,000	Gallons	8.77	per 1,000 Gallons
Next	30,000	Gallons	8.09	per 1,000 Gallons
Next	50,000	Gallons	7.72	per 1,000 Gallons
All Over	100,000	Gallons	6.77	per 1,000 Gallons

1-Inch Meter

First	5,000	Gallons	\$ 53.96	Minimum Bill
Next	15,000	Gallons	8.77	per 1,000 Gallons
Next	30,000	Gallons	8.09	per 1,000 Gallons
Next	50,000	Gallons	7.72	per 1,000 Gallons
All Over	100,000	Gallons	6.77	per 1,000 Gallons

2 & 3-Inch Meters

First	20,000	Gallons	\$ 185.42	Minimum Bill
Next	30,000	Gallons	8.09	per 1,000 Gallons
Next	50,000	Gallons	7.72	per 1,000 Gallons
All Over	100,000	Gallons	6.77	per 1,000 Gallons

6-Inch Meters

First	50,000	Gallons	\$ 428.03	Minimum Bill
Next	50,000	Gallons	7.72	per 1,000 Gallons
All Over	100,000	Gallons	6.77	per 1,000 Gallons

12-Inch Meters

First	100,000	Gallons	\$ 814.17	Minimum Bill
All Over	100,000	Gallons	6.77	per 1,000 Gallons

Leak Adjustment			4.56	per 1,000 Gallons
-----------------	--	--	------	-------------------

Wholesale Customers

City of Greenup

4.60 per 1,000 Gallons

Big Sandy Water District

4.60 per 1,000 Gallons

Water Loss Reduction Surcharge

4.00 per Active Meter

(This water loss reduction surcharge will expire 4 years from the date of this Order.)

\*Honorable Damon R Talley  
Attorney at Law  
Stoll Keenon Ogden PLLC  
P.O. Box 150  
Hodgenville, KENTUCKY 42748

\*Katelyn L. Brown  
Attorney  
STOLL KEENON OGDEN PLLC  
300 West Vine Street  
Suite 2100  
Lexington, KENTUCKY 40507-1801

\*Cannonsburg Water District  
1606 Cannonsburg Road  
Ashland, KY 41102

\*Tim Webb  
Cannonsburg Water District  
1606 Cannonsburg Road  
Ashland, KY 41105