

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION INTO BUTLER COUNTY )  
WATER SYSTEM, INC.'S RATE SCHEDULE FOR ) CASE NO. 2002-00040  
SERVICES WITH PRIVATE FIRE PROTECTION )  
FACILITIES )

AN INVESTIGATION INTO SIMPSON COUNTY )  
WATER DISTRICT'S RATE SCHEDULE FOR ) CASE NO. 2002-00041  
SERVICES WITH PRIVATE FIRE PROTECTION )  
FACILITIES )

AN INVESTIGATION INTO WARREN COUNTY )  
WATER DISTRICT'S RATE SCHEDULE FOR ) CASE NO. 2002-00042  
SERVICES WITH PRIVATE FIRE PROTECTION )  
FACILITIES )

ORDER

These cases involve an investigation into the rates for private fire protection service of three water utilities. At issue is whether the monthly charge that each utility assesses for such service includes a commodity component and is thus unfair and unreasonable. Finding in the affirmative, we find the utilities' proposed rates to be unreasonable and order the utility to assess lower charges for fire protection services provided as of the date of this Order.

BACKGROUND AND PROCEDURE

Administrative Case No. 385

On December 22, 2000, we initiated a proceeding to investigate fire protection services and the fees for such services.<sup>1</sup> The Commission had not previously addressed this issue on an industry-wide basis and intended to use this proceeding as a

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<sup>1</sup> An Investigation Into Fees for Fire Protection, Administrative Case No. 385 (Ky. PSC Dec. 22, 2000).

vehicle “to collect information regarding fire protection services, to catalog and examine the present practices of water utilities with regard to these services, to identify any deficiencies with these practices and the extent, if any, to which these deficiencies require the Commission to develop uniform standards.”<sup>2</sup> The ultimate goal of this proceeding was to “ensure that utility practices are not discouraging or preventing reasonable, cost-effective means of fire protection services.”<sup>3</sup>

After a year long investigation, we announced our findings and conclusions on the provision of fire protection services. We found that, inter alia, a significant number of water utilities were assessing the same charges for fire protection service as they were assessing for domestic water service. As some of these water utilities had minimum monthly charges that included an allotment of water consumption, they were “effectively billing fire protection service customers for significant amounts of water that . . . [were] unlikely to be consumed.”<sup>4</sup> We found this practice of assessing a minimum monthly rate for fire protection services that includes a commodity component to be unreasonable and unfair. We directed water utilities engaging in that practice to revise their rate schedules “to eliminate the commodity component of its fire protection services rate and to reduce that rate to reflect the elimination of this component.”<sup>5</sup>

Following the issuance of our Order, we promulgated Administrative Regulation 807 KAR 5:095 to govern the provision for fire protection services by water utilities. This regulation codified the guidelines that we found were reasonable and necessary for

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<sup>2</sup> Id. at 1 – 2.

<sup>3</sup> Id. at 2.

<sup>4</sup> An Investigation Into Fees for Fire Protection, Administrative Case No. 385 (Ky. PSC Dec. 7, 2002) at 13.

<sup>5</sup> Id. at 14.

the provision of fire protection service.<sup>6</sup> It, inter alia, prohibits a utility from assessing “a rate for private fire protection service that includes a component for water usage unless that component is based upon a customer’s actual usage. 807 KAR 5:095, Section 5(1).

### Water Utilities<sup>7</sup>

Warren County Water District, a water district organized pursuant to KRS Chapter 74, owns and operates facilities used to distribute water to approximately 19,123 customers in portions of Bowling Green, Kentucky and surrounding Warren County.<sup>8</sup> It is a utility subject to Commission jurisdiction. KRS 278.010(3)(d); KRS 278.015; KRS 278.040(1). Warren District purchases its water requirements from Bowling Green Municipal Utilities.<sup>9</sup>

Simpson County Water District (“Simpson District”), a water district organized pursuant to KRS Chapter 74, owns and operates facilities used to distribute water to approximately 2,848 customers in portions of Simpson County, Kentucky.<sup>10</sup> It is a utility subject to Commission jurisdiction. KRS 278.010(3)(d); KRS 278.015; KRS 278.040(1). Simpson District purchases its water requirements from White Hall Utility District.<sup>11</sup>

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<sup>6</sup> 29 Ky. R. 200 (eff. Nov. 13, 2002).

<sup>7</sup> When reference is made in this Order to “Water Utilities,” we are collectively referring to Butler County Water System, Inc., Simpson County Water District, and Warren County Water District.

<sup>8</sup> Annual Report of Warren County Water District to the Public Service Commission for the Year Ended December 31, 2001 at 27.

<sup>9</sup> Id. at 29.

<sup>10</sup> Annual Report of Simpson County Water District to the Public Service Commission for the Year Ended December 31, 2001 at 27.

<sup>11</sup> Id. at 31.

Butler County Water System, Inc. (“Butler System”), is a non-profit corporation organized under KRS Chapter 273. It owns and operates facilities used to treat and distribute water to approximately 4,397 customers in Butler County, Kentucky.<sup>12</sup> It is a utility subject to Commission jurisdiction. KRS 278.010(3)(d); KRS 278.012; KRS 278.040(1).

Although separate entities, the Water Utilities share the same office building, employ the same manager and staff, and have adopted similar policies with regard to the provision of fire protection service. At the time that we entered our final Order in Administrative Case No. 385, each utility treated any fire protection service customer as a domestic water service customer and assessed a monthly charge that contained a commodity component.<sup>13</sup> Under the terms of that Order, each was required to revise its rate schedules to eliminate the commodity component of any monthly rate for fire protection service customers. On December 27, 2002, each filed revised rate schedules for services with fire protection facilities.

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<sup>12</sup> Annual Report of Butler County Water System, Inc. to the Public Service Commission for the Year Ended December 31, 2001 at 29.

<sup>13</sup> As of December 7, 2002, Warren County Water District, for example, required fire protection systems to be separately metered. It billed a customer who had a fire sprinkler system that is served through a 6-inch meter \$310.30 monthly for that service. Included in this bill was the usage of 100,000 gallons of water. Unless a fire activated the customer’s fire sprinkler system, an event that was not likely to occur on a monthly basis, the customer was unlikely to use any of this water.

## Procedure

On February 7, 2002, the Commission initiated separate proceedings for each water utility to determine “whether the revised fire protection services rate schedule excludes all commodity component costs.” At that time, we declared that the revised rate schedules would remain in effect during our investigation and any required revisions to these rates would be prospective.<sup>14</sup>

The following parties were permitted to intervene in these proceedings: the city of Bowling Green; the Attorney General; Kenneth Meredith; and the Barren River Development Council.

After the parties and Commission Staff conducted discovery and submitted written testimony, the Commission held a hearing in these proceedings on March 3, 2004. At this hearing, the following persons presented testimony: Sam Reid, Manager, Commission Water and Sewer Utility Rate Design Branch; Robert Amato, Director, Commission Division of Engineering; Alan Villines, Warren District Manager of Engineering; Carryn Lee, Kentucky Rural Water Association staff member;<sup>15</sup> Robert

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<sup>14</sup> See Case No. 2002-00040, Order of February 12, at 1; Case No. 2002-00040, Order of February 12, at 1; Case No. 2002-00040, Order of February 12, at 1.

<sup>15</sup> Ms. Lee appeared in this proceeding in several different capacities. Originally, she was a member of Commission staff assigned to these proceedings. On September 30, 2002, Ms. Lee retired from state government employment. The Commission subsequently retained her services as a consultant. In this capacity, she prepared and submitted written testimony on the Water Utilities’ proposed rates. On or about December 1, 2003, Ms. Lee ceased providing consulting services to the Commission. Ms. Lee subsequently appeared at an informal conference in these proceedings on February 19, 2004 as an employee of Kentucky Rural Water Association. On February 24, 2004, the Water Utilities deposed her and subsequently submitted her deposition as her written testimony on their behalf. Ms. Lee appeared at the hearing on March 3, 2004 under subpoena as a witness for the Water Utilities. Several intervening parties and Commission Staff have raised concerns about the appropriateness and appearance of Ms. Lee’s involvement in these proceedings. While we agreed that Ms. Lee’s actions give rise to a potential appearance of impropriety, we found no legal basis upon which to strike her testimony. We have, however, considered her actions in determining the appropriate weight to give her testimony. See Transcript of Evidence at 8 – 13.

Benson, Engineer, Black and Veatch Consulting Engineers; Chief Jerry Brown, Bowling Green Fire Department; Chief Jack Reckner, President, Kentucky Association of Fire Chiefs; John B. Corso, National Training Manager, National Fire Sprinkler Association; Greg Young; and Kenneth Meridith. Following the hearing, the parties submitted written briefs.

## ANALYSIS

### Determination of Commodity Component

As framed in our Orders initiating these proceedings, the principal issue before us is whether the proposed fire protection rates contain any component representing water. To be reasonable and consistent with the holding of Administrative Case No. 385, the proposed rates should not contain any costs that would occur only if a fire event occurs and the customer uses water.

The Water Utilities adopted a simple approach to determine and then remove the commodity component of their fire protection service rates. Each utility added its total water purchased expense and its power for pumping expense and then divided the sum by the total number of gallons purchased to obtain a total commodity cost per 1,000 gallons of water.<sup>16</sup> This approach assumed that the only variable components in the cost of providing water service were the cost of purchased water and the power cost associated with pumping the water to the customer.<sup>17</sup> The water commodity component

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<sup>16</sup> See Case No. 2002-00040, Butler System's Response to the Commission's Order of February 12, 2002, Item 1; Case No. 2002-00041, Simpson District's Response to the Commission's Order of February 12, 2002, Item 1; Case No. 2002-00042, Warren District's Response to the Commission's Order of February 12, 2002, Item 1.

<sup>17</sup> Because it also produces water, Butler System's methodology contained some additional elements. It also considered the cost of chemicals and power to operate its water treatment plant. See Case No. 2002-00040, Butler System's Response to the Commission's Order of February 12, 2002, Item 1.

that this methodology produces is reflected in Table 1. This component is then subtracted from the water utility's minimum rate to produce a rate for fire protection service.

TABLE 1	
<b>Butler County Water System</b>	<b>\$0.53</b>
<b>Simpson County Water District</b>	<b>1.24</b>
<b>Warren County Water District</b>	<b>0.89</b>

A significant problem with this methodology is the lack of any information on the costs that compose the minimum charge from which the commodity component is removed. None of the Water Utilities have had a complete rate review within the last 15 years.<sup>18</sup> Therefore, we have little, if any, information as to the costs that are reflected in the minimum charge. While the removal of purchased water expense and purchased power expense in some measure reduces the likelihood that a fire protection service customer is assessed a rate that includes the commodity cost of water, it does not eliminate that possibility.

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<sup>18</sup> The Commission has not examined Warren District's rates in a general rate proceeding since prior to 1980. Warren District has avoided Commission review by using the rate adjustment procedures established in KRS 278.015 and KRS 278.023. These statutes allow only minimal Commission review of a water district's rate adjustments when the adjustment is the result of a change in the rates of the water district's wholesale water supplier or when a financing agreement with Rural Development prescribes the water district's rates for service. Similarly, the Commission's last review of Simpson District's general rates was in 1989. See Case No. 1989-00219, The Application of Simpson County Water District for Rate Adjustment Pursuant to the Alternative Rate Filing Procedure for Small Utilities (Ky. PSC Nov. 8, 1989). Until very recently, Butler System's last general rate case proceeding occurred in 1986. See Case No. 9505, The Application of Butler County Water System, Inc., Butler County, Kentucky, (1) For a Certificate of Public Convenience and Necessity Authorizing Said System to Construct Major Improvements and Additions to Its Existing Municipal Water Distribution System Pursuant to the Provisions of KRS 278.020 of the Kentucky Revised Statutes; and (2) Seeking Approval of the Issuance of Certain Securities as Required by KRS 278.030; and (3) Approval of One Water Rate Structure for All Customers (Ky. PSC Nov. 11, 1986.) On March 25, 2004, Butler System applied for a general rate adjustment. In its application, however, it refused to address the issue of fire protection service rates. See Case No. 2003-00486, Application of Butler County Water System, Inc. for a General Rate Adjustment Pursuant to the Provisions of KRS 278.030 and 807 KAR 5:001 (Ky. PSC Jan. 12, 2005).

To obtain a more accurate view of each utility's cost of service, Commission Staff prepared a cost-of-service study<sup>19</sup> on each of the Water Utilities. Using the base-extra capacity method, Commission Staff examined the utilities' expenses for calendar year 2001 and allocated these expenses into five components: base,<sup>20</sup> maximum day, maximum hour,<sup>21</sup> customer<sup>22</sup> and fire protection.

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<sup>19</sup> Commission Staff prepared several versions of these studies. Originally Ms. Lee submitted studies on behalf of Commission Staff on February 25, 2003. After receiving comments from the parties regarding her studies, she submitted revised studies on March 24, 2003 and October 10, 2003. After Ms. Lee ceased providing consulting services to Commission Staff, Sam Reid assumed responsibility for the studies. On February 25, 2004, Mr. Reid submitted revised cost-of-service studies, which, while adopting most of Ms. Lee's assumptions and calculations, contained several revisions. Some of these revisions were based upon recommendations that Robert Amato provided. For purposes of this Order, all references to Commission Staff cost-of-service studies refer to the final Commission Staff version.

<sup>20</sup> Base costs are costs that tend to vary with the total quantity of water used plus those O&M expenses and capital costs associated with service to customers under average load conditions, without the elements of cost incurred to meet water use variations and resulting peaks in demand. Base costs include O&M expenses of supply, treatment, pumping, and distribution facilities. Base costs also include capital costs related to water plant investment associated with serving customers to the extent required for a constant, or average, annual rate of use.

American Water Works Association, Principles of Water Rates, Fees and Charges (Manual M1 5th ed.) (hereinafter "AWWA Manual M1") at 51.

<sup>21</sup> Maximum day and maximum hour cost components are considered "extra capacity costs." "Extra capacity costs are costs associated with meeting rate of use requirements in excess of average and include O&M expenses and capital costs for system capacity beyond that required for average rate of use. These costs may be subdivided into costs necessary to meet maximum-day extra demand, maximum-hour demand in excess of maximum day demand, or other extra-demand criteria (such as the maximum five day demand) that may be appropriate for a particular utility." Id.

<sup>22</sup> Customer costs comprise those costs associated with serving customers, irrespective of the amount or rate of water use. They include meter reading, billing, and customer accounting and collecting expense, as well as maintenance and capital costs related to meters and services. In detailed studies, the costs for meter reading and billing and for customer accounting and collecting may be considered one subcomponent; maintenance and capital costs on customer meters and services may be considered another subcomponent.

Id.



Significant elements in the allocation of costs to fire protection are the maximum-hour fire demand and maximum-day demand. “The total quantity of water used for fire fighting is minimal in comparison to other uses.”<sup>23</sup> The potential maximum-day and maximum-hour demands for fire fighting, however, can be significant.<sup>24</sup> It reflects the total amount of water available within a limited period of time to extinguish a fire. As the water utility’s ability to deliver water to extinguish a fire increases because of larger-sized water mains or storage capacity, the amount of utility plant costs allocated to fire protection also increases.

In its cost-of-service study, Commission Staff determined the maximum-hour fire demand for each utility using the results of fire flow tests conducted throughout the Water Utilities’ systems. Commission Staff reasoned that the fire flow tests indicated a water main’s ability to carry water on the utility’s system.<sup>25</sup> Instead of using the maximum hydrant flow, however, Commission Staff averaged the maximum hydrant flows from representative locations on each utility’s system to determine a maximum fire flow for each utility. Commission Staff applied this approach reasoning that it would more accurately reflect the fire flow that is deliverable to all parts of the utility’s system, not merely those portions of the system that are served with larger water mains.<sup>26</sup>

While the Water Utilities generally agreed with Commission Staff’s methodology and its results, they took strong exception to the use of the fire flow test results and the averaging of maximum hydrant flows to determine maximum-day and maximum-hour

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<sup>23</sup> Id. at 220.

<sup>24</sup> Id. at 221.

<sup>25</sup> Testimony of Robert A. Amato at 2 – 3.

<sup>26</sup> Id. at 3.

demand for fire protection. They argue that the maximum-day and maximum-hour demands should be based upon hydraulic studies of the respective systems. They submitted hydraulic studies that show that each system can produce greater water flows than Commission Staff has suggested.

The Water Utilities' witnesses argue that the averaging of fire flows is inconsistent with the base-extra capacity methodology.<sup>27</sup> Maximum-day and maximum-hour demand measure the demand placed on the water system at peak times. The methodology, they argue, requires the use of the peak usage or water flow for fire protection purposes regardless of whether that peak usage could be provided throughout the water system.<sup>28</sup> Averaging maximum fire flows understates the maximum-hour demand and understates the cost that fire protection service imposes. Tables 2 and 3 provide a comparison of the maximum-hour demand flow rates that Commission Staff and the Water Utilities propose and the rates that result from their usage.

<b>TABLE 2</b>		
	<b>Commission Staff Max HR Demand</b>	<b>Water Utilities Max HR Demand</b>
<b>Butler County Water System</b>	<b>750 GPM</b>	<b>1,000 GPM</b>
<b>Simpson County Water District</b>	<b>800 GPM</b>	<b>1,500 GPM</b>
<b>Warren County Water District</b>	<b>1,050 GPM</b>	<b>4,000 GPM</b>

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<sup>27</sup> See, e.g., Testimony of Carryn Lee on Behalf of Water Utilities at 5 -6 (Feb. 24, 2004); Transcript of Hearing at 215 – 218.

<sup>28</sup> For example, a water utility can provide fire flows of 4,000 gallons of water per minute in 10 percent of its distribution system, but only 1,500 gallons of water per minute in the remaining 90 percent. The maximum-hour demand should be based upon 4,000 gallons per minute since this is the highest demand that a fire event would impose on the entire water system.

<b>TABLE 3</b>				
<b>WARREN COUNTY WATER DISTRICT</b>				
<b>Service Size</b>	<b>Number of Connections</b>	<b>Current Customer Charge</b>	<b>Final Staff<sup>29</sup> Proposed Customer Charge</b>	<b>Utility's Proposed Customer Charge</b>
4	11	\$138.14	\$ 51.98	\$ 63.41
6	16	221.30	79.73	112.95
8	26	294.75	115.50	186.28
10	3	681.96	172.63	299.91
<b>Annual Revenue</b>		<b>\$177,236.64</b>	<b>\$64,420.71</b>	<b>\$98,972.64</b>
		<b>(Difference)</b>	<b>(\$112,815.93)</b>	<b>(\$78,264.00)</b>
<b>SIMPSON COUNTY WATER DISTRICT</b>				
<b>Service Size</b>	<b>Number of Connections</b>	<b>Current Customer Charge</b>	<b>Final Staff Proposed Customer Charge</b>	<b>Utility's Proposed Customer Charge</b>
4	1	\$162.71	\$ 88.48	\$ 130.26
6	5	287.25	202.62	323.99
<b>Annual Revenue</b>		<b>\$19,187.52</b>	<b>\$13,219.03</b>	<b>\$21,002.65</b>
		<b>(Difference)</b>	<b>(\$5,968.49)</b>	<b>\$ 1,815.13</b>
<b>BUTLER COUNTY WATER SYSTEM</b>				
<b>Service Size</b>	<b>Number of Connections</b>	<b>Current Customer Charge</b>	<b>Final Staff Proposed Customer Charge</b>	<b>Utility's Proposed Customer Charge</b>
3	1	\$126.00	\$52.20	\$ 68.05
6	1	373.21	256.55	340.77
8	1	596.00	494.35	658.17
<b>Annual Revenue</b>		<b>\$13,142.52</b>	<b>\$9,637.20</b>	<b>\$12,803.86</b>
		<b>(Difference)</b>	<b>(\$3,505.32)</b>	<b>(\$ 338.66)</b>

The Attorney General argues that the dispute between Commission Staff and the Water Utilities over the calculation of the maximum-hour demand is irrelevant. He asserts that, regardless of the methodology used, nothing within the record demonstrates that either methodology will result in the removal of the commodity charges in the Water Utilities' fire protection rates. "The issue of the proper factor for

<sup>29</sup> This proposal is the result of the final version of Commission Staff's cost-of-service studies and is based upon Messrs. Reid's and Amato's testimonies.

the allocation of maximum day and maximum hour costs is irrelevant to and unnecessary for this proceeding.”<sup>30</sup>

We find no merit to this argument. To eliminate the commodity component from the Water Utilities’ rate requires a complete knowledge of the Water Utilities’ costs. The use of base-extra capacity methodology appears to be the most appropriate means to accomplish this task. While several different methods of allocating costs exist, the base-extra capacity method is one of the most widely used methods of allocating costs. It recognizes that the cost of serving customers depends not only on the total volume of water used but also on the rate of use. We have used this methodology in several rate proceedings and have found it an effective methodology.<sup>31</sup> Based upon the problems noted above with the methodology that the Water Utilities originally used to develop their fire protection service rates, we find this methodology is superior.

The Commission further finds Commission Staff’s use of fire flows to determine maximum-day and maximum-hour demands is acceptable. The AWWA Manual M1 states that these demands “are determined based on maximum fire demands and individual system performance.”<sup>32</sup> It further provides that “[f]ire flow requirements can be determined from fire flow test reports conducted periodically by the Insurance Services Office or by other engineering studies.”<sup>33</sup>

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<sup>30</sup> AG’s Brief at 9.

<sup>31</sup> See, e.g., Case No. 2003-00224, Application of Northern Kentucky Water District for (A) An Adjustment of Rates; (B) A Certificate of Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds (Ky. PSC June 14, 2004).

<sup>32</sup> AWWA Manual M1 at 222.

<sup>33</sup> Id.

While Commission Staff's proposed use of fire flows is acceptable, we are of the opinion that greater weight should be afforded to the Water Utilities' hydraulic studies. None of the fire flow information upon which Commission Staff relied was the result of Insurance Services Office's tests. Commission Staff was unable to obtain this information and instead relied upon field tests that the Water Utilities had conducted. In contrast, the hydraulic studies, which the Water Utilities' engineer prepared, appeared to be based upon reasonable assumptions and adequate supporting field tests and measurements. In the absence of the Insurance Services Office's tests and any readily apparent defect in the Water Utilities' hydraulic studies, we believe that the maximum-hour rate suggested by the hydraulic studies is more appropriately used to determine the fire service protection rate.

Moreover, we are not persuaded at this juncture that Commission Staff's use of averaging of maximum fire flow rates is appropriate. Both cost-of-service study experts who testified in this proceeding stated that use of averages was not consistent with the base-extra methodology. They noted that the use of averages understates peak usage of customer classes and would result in a misstatement of maximum-hour rate. While we recognize that none of the Water Utilities can produce the assigned maximum fire flows to all points in their distribution systems, a fire event can produce the assigned maximum demand in some portions of their systems and this demand must be reflected in the assignment of costs. In the absence of any authority that supports the Commission Staff position, we find that the averaging of maximum flows to determine a maximum-hour rate should not be used.

The AG argues that the Commission should disregard the results of the cost-of-service study and instead establish a fire protection service rate that is based only on

the customer's actual water usage and the expenses listed in Administrative Regulation 807 KAR 5:095, Section 5(3).<sup>34</sup> He asserts that this administrative regulation specifies specific costs for recovery through a fire protection service rate. The maximum day and maximum hour allocations, he argues, involve costs that the regulation does not require for recovery. Absent a clear showing of the role that fire protection service plays in the overall planning, construction and operation of the Water Utilities' systems, these costs should not be recovered. Neither Commission Staff nor the Water Utilities have demonstrated that role in these proceedings.

While finding merit in the AG's argument, we are of the opinion that Administrative Regulation 807 KAR 5:095 does not prohibit a water utility from recovery of maximum day and maximum hour costs through its fire protection service rates. It merely gives the water utility the discretion to allocate those costs to its general service rates. The water utilities in this case have chosen not to allocate those costs to general service rates. As the scope of this proceeding is limited to the elimination of the commodity component of any fire protection service rate, we are of the opinion that any

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<sup>34</sup> A utility shall assess a rate for service to a fire protection system that is separately connected to the utility's distribution system and that does not receive water service for any other purpose. The rate shall recover, at least, the cost of:

- (a) Depreciation and debt service or return on utility investment in the utility facilities that directly connect the utility's main to the fire protection system;
- (b) Expenses associated with periodic inspections to ensure against unauthorized use;
- (c) Expenses associated with meter reading and billing, if a meter is installed for the fire protection system; and
- (d) Expenses for maintenance, repairs, and inspection on the utility facilities that directly connect the utility's main to the fire protection system.

action to restrict the inclusion of maximum day and maximum hour costs in the Water Utilities' fire protection service rates would be inappropriate. We find that the role that fire protection service plays in the overall planning, construction and operation of a water utility's system is an appropriate factor to consider when establishing fire protection rates in a general rate proceeding and that a water utility seeking to establish or adjust its fire protection rates should be required to present evidence on that role in such a proceeding.

Similarly, the limited scope of these proceedings prevents our consideration of the arguments of Bowling Green and Barren River Development Council that fire sprinkler systems benefit other customer classes by reducing system demand and reducing water consumption. While we find merit in their arguments, we are of the opinion that these arguments are more appropriately addressed in a general rate proceeding in which all of the policy issues associated with rate design can be fully discussed.<sup>35</sup>

Based upon our review of the record and being otherwise sufficiently advised, we find that the fire protection service rates that the Water Utilities originally proposed still contain a commodity component and are therefore unreasonable. We further find that, through the use of base-extra capacity methodology, the commodity component can be eliminated and the reasonable cost of fire protection service ascertained.

The Commission further finds that, with the exception of its methodology to determine maximum-hour demands for fire protection, Commission Staff's base-extra capacity methodology is appropriately used in this proceeding. In light of strong

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<sup>35</sup> Given the Water Utilities' ability to avoid general rate case proceedings, see supra note 17, the Commission recognizes that few opportunities may exist for the thorough examination of these issues as they relate to the utilities before us. Processes, however, still exist that will permit such examination. See KRS 278.260(1); 807 KAR 5:001, Section 12.

authority to the contrary and in the absence of sufficient evidence to support use of averaging of maximum-hour demands through representative locations within the Water Districts' systems, such averaging should not be used in this case to determine maximum-hour demand. Moreover, we find that when determining the maximum-hour demand, the engineering studies that the Water Districts' submitted following the hearing in this matter and that address the unique operating characteristics of each water system should be afforded greater weight than the flow tests that Commission Staff used. Based upon the application of this modified methodology, we find that the rates set forth in Appendices A through C of this Order are the fair, just and reasonable rates that the Water Utilities should assess for fire protection service.

The rates set forth in the Appendices to this Order establish only a customer charge for fire protection service. They do not contain a schedule for water usage in the event of a fire event. We find that no such schedule is necessary in this case. Each of the Water Utilities has stated in its filed rate schedules that it will furnish water to fight a fire from facilities connected to its water system "free of charge" for a period not to exceed a total of 4 hours.<sup>36</sup> We interpret these schedules to apply not only to water furnished to public hydrants but also to water furnished to private fire hydrants and private fire protection systems.<sup>37</sup> In the event that a fire event exceeds 4 hours in

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<sup>36</sup> See Butler County Water System Tariff Sheet Nos. 3 and 4 of 5 (effective Aug. 11, 1997); Simpson County Water District Tariff Sheet Nos. 3 and 4 of 5 (effective Aug. 11, 1997); Warren County Water District Tariff Sheet Nos. 2 and 3 of 4 (effective Dec. 16, 1997).

<sup>37</sup> Failing to apply these provisions to water provided to private fire hydrants and other fire protection systems would constitute unreasonable discrimination among similarly situated customers. KRS 278.170 prohibits such discrimination. We find no reasonable distinction can be drawn between the use of water by a public fire hydrant or a private fire hydrant or fire protection system when the ultimate purpose is to protect private property.



duration, then the customer should be billed in accordance with the water utility's rates for general service.

### Other Issues

Bowling Green argues in its brief that Warren District's fire protection rate constitutes an unlawful standby fee. The Commission previously addressed the issue of standby fees in Administrative Case No. 385. We stated:

Several states have prohibited standby fees or charges for automatic fire sprinkler systems. In these states, standby fee has generally been defined as additional charges "imposed by a water utility on [the] owners of structures because the structures are equipped with automatic fire protection systems." These statutes have not been interpreted as prohibiting fire protection service rates where the rates are for separate and distinct investments beyond those for regular water service. For example, in Pennsylvania Public Service Commission v. Superior Water Co., 199 PUR4th 603 (Pa.PUC 2000), the Pennsylvania Public Service Commission held that a water utility's assessment of a charge for a separate service line and shut off valve to serve a fire sprinkler system was for separate and distinct investments to provide fire protection service and therefore did not constitute a "standby charge."

The Commission agrees with the proposition that standby fees should not be assessed for fire protection service. We define such fees as additional charges imposed by a water utility on owner of structures because the structures are equipped with automatic fire protection systems. For example, a water utility that provides domestic service and fire protection service through the same service connection should not be permitted to assess a charge in addition to the general service rate merely because a fire sprinkler system is served through this connection. Where a separate service connection is installed to serve a fire sprinkler system or other fire protection system, the assessment of an additional fee is appropriate, provided this fee reflects the cost of service.

In those instances in which a separate service connection is installed for fire protection purposes, the key question concerns the appropriate rate for such service. This rate should reflect the cost of serving the fire protection

system. Given the nature of fire protection service, the demands and costs that such service imposes upon a water utility are quite different than those of domestic service customers. The rates for such service, therefore, should differ from those for domestic water service. At a minimum, these rates should be sufficient to recover (1) depreciation and debt service or return on investment in the water utility's facilities that directly connect the water distribution main to the fire sprinkler system; (2) expenses associated with periodic inspections to ensure against unauthorized use; (3) expenses associated with meter reading and billing, if a meter is installed for the fire sprinkler system; and (4) expenses for maintenance and inspection of water utility facilities that directly connect the water distribution main to the fire sprinkler system. **A portion of a water utility's treatment, transmission, and distribution costs may also be allocated to fire protection service where appropriate.**<sup>38</sup>

We find insufficient evidence in the record to support Bowling Green's contention that Warren District's fire protection service fee is a standby fee. Based upon our review of Commission Staff's cost-of-service study and the other evidence in the record, we find that rates set forth in Appendix C of this Order are not standby fees, but reflect the non-commodity cost of providing service.

Several intervenors argue that Warren District is engaging in unreasonable and unlawful practices by its requirement for the metering of fire protection service installations. Because of the limited scope of these proceedings, we will not address this issue or other allegations of Warren District's non-compliance with Administrative

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<sup>38</sup> An Investigation Into Fees for Fire Protection, Administrative Case No. 385 (Ky. PSC Dec. 7, 2002) at 11 -13 (emphasis added).

Regulation 807 KAR 5:095.<sup>39</sup> The parties may raise those issues in separate proceedings.<sup>40</sup>

The Commission has previously addressed the issue of metering in Administrative Case No. 385. In our final Order, we found that the “use of metering equipment for fire protection services is generally not cost effective and should not be required absent compelling circumstances.” Administrative Regulation 807 KAR 5:095, which we promulgated as a result of our investigation in Administrative Case No. 385, expressly provides: “A utility shall provide service dedicated solely to a fire sprinkler system without the use of metering equipment unless good cause related to the delivery or use of the service exists.”<sup>41</sup> We hereby place Warren District on notice that, in the event of any complaints regarding this issue, it will be expected to demonstrate the need for each required metering of fire protection service. We will also expect the same demonstration regarding complaints for required separate connections for fire protection.

Finally, Bowling Green and Barren River Development Council urge the Commission to adopt an approach that will encourage the use of fire sprinkler systems. We have previously stated our agreement with the proposition that public policy should encourage the installation of fire sprinkler systems.<sup>42</sup> “The promotion of the installation and use of fire sprinkler systems, however, should not be at the expense of cost based

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<sup>39</sup> We have advised the parties previously that these issues were outside the scope of this proceeding and should be brought in separate proceedings. See, e.g., Transcript of Hearing at 14 -17.

<sup>40</sup> See KRS 278.260(1); 807 KAR 5:001, Section 12.

<sup>41</sup> Administrative Regulation 807 KAR 5:095, Section 8(1).

<sup>42</sup> An Investigation Into Fees for Fire Protection, Administrative Case No. 385 (Ky. PSC Dec. 7, 2002) at 10.

rates.”<sup>43</sup> The Commission, therefore, will closely examine fire protection service rates in any general rate case proceeding to ensure that these rates are not excessive and reflect only the cost of service. In such proceedings, we can and will consider the appropriate weight that should be given to the benefits that fire protection systems provide to other customer classes through a reduction in system demand and utility plant. Moreover, when properly brought to our attention in the appropriate proceedings, we will examine water utility practices and conditions of service related to the provision of fire protection service to ensure that those practices are reasonable and do not unnecessarily frustrate the present public policy to encourage the installation of fire protection systems.

#### SUMMARY

Based upon our review of the evidence of record and being otherwise sufficiently advised, the Commission HEREBY ORDERS that:

1. Butler System shall charge for fire protection service rendered on and after the date of this Order the rates set forth in Appendix A of this Order.
2. Simpson District shall charge for fire protection service rendered on and after the date of this Order the rates set forth in Appendix B of this Order.
3. Warren District shall charge for fire protection service rendered on and after the date of this Order the rates set forth in Appendix C of this Order.
4. Subject to the filing of timely petition for rehearing pursuant to KRS 278.400, these proceedings are closed. The Executive Director shall place any future filings in the appropriate utility’s general correspondence file or shall docket the filing as a new proceeding.

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<sup>43</sup> Id.

Done at Frankfort, Kentucky, this 29<sup>th</sup> day of March, 2005.

By the Commission

ATTEST:

A handwritten signature in black ink, consisting of several overlapping loops and a horizontal line at the bottom.

Executive Director

Case No. 2002-00040  
Case No. 2002-00041  
Case No. 2002-00042

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASES NO. 2002-00040, NO. 2002-00041,  
AND NO. 2002-00042 DATED March 29, 2005

The following rates are prescribed for the customers in the areas served by Butler County Water System. All other rates not specifically mentioned herein shall remain the same as those in effect under authority of the Commission prior to the effective date of this Order.

Monthly Private Fire Protection Charge

Service Size

3-inch	\$ 68.05
6-inch	340.77
8-inch	658.17

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASES NO. 2002-00040, NO. 2002-00041,  
AND NO. 2002-00042 DATED March 29, 2005

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

Monthly Private Fire Protection Charge

Service Size

4-inch	\$ 130.26
6-inch	323.99

APPENDIX C

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASES NO. 2002-00040, NO. 2002-00041,  
AND NO. 2002-00042 DATED March 29, 2005

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

Monthly Private Fire Protection Charge

Service Size

4-inch	\$ 63.41
6-inch	112.95
8-inch	186.28
10-inch	299.91