

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF BOSTON WATER )  
DISTRICT, OF NELSON COUNTY, )  
KENTUCKY, (1) FOR A CERTIFICATE OF )  
PUBLIC CONVENIENCE AND NECESSITY, )  
AUTHORIZING AND PERMITTING SAID )  
WATER DISTRICT TO CONSTRUCT A )  
WATERWORKS CONSTRUCTION PROJECT, )  
CONSISTING OF EXTENSION, ADDITIONS, ) CASE NO. 9320  
AND IMPROVEMENTS TO THE EXISTING )  
WATERWORKS SYSTEM OF THE DISTRICT; )  
(2) APPROVAL OF THE PROPOSED PLAN )  
OF FINANCING OF SAID PROJECT; AND )  
(3) APPROVAL OF THE INCREASED WATER )  
RATES PROPOSED TO BE CHARGED BY THE )  
DISTRICT TO CUSTOMERS OF THE )  
DISTRICT )

O R D E R

On March 30, 1984, Boston Water District ("Boston") filed its application in Case No. 9022 to construct certain facilities, issue certain securities to fund the construction and raise its water rates. The proposed water rates were based upon a revenue requirement analysis including the proposed construction and financing.

On January 21, 1985, a motion was filed by Boston stating that the construction project had not yet been bid, thereby causing a delay in the Commission's decision beyond the 10-month time period allowed to decide a rate case as set out in KRS 278.190(3). The Commission entered an Order on January 30, 1985, to dismiss Case No. 9022 without prejudice.

On March 25, 1985, Boston filed its application and motion to reopen Case No. 9022. The Commission entered an Order on April 16, 1985, establishing this case (Case No. 9320) and incorporating by reference the entire record in Case No. 9022.

Boston requests approval of adjustments to its water service rates, authorization to construct a \$215,000 waterworks improvement project and approval of its plan of financing for this project. The planned financing includes a \$118,400 grant from the Farmers Home Administration ("FmHA"), an FmHA loan of \$84,000, and a local contribution of \$12,600 from applicants for service in the project area. The FmHA loan will be secured by waterworks revenue bonds maturing over a 40-year period at an interest rate of 7 1/8 percent per annum.

The proposed construction will provide service to 56 additional customers in the New Hope area of Nelson County, Kentucky. Drawings and specifications for the proposed improvements as prepared by Kennoy Engineers, Inc., of Lexington, Kentucky, ("Engineer") have been approved by the Division of Water of the Natural Resources and Environmental Protection Cabinet.

A hearing on Boston's proposed construction, financing and rates was held in Frankfort, Kentucky, on May 7, 1985. There were no intervenors and no protests entered.

Boston requested a rate which would produce an annual increase of \$19,392. In this Order, the Commission has allowed a rate which will produce an annual increase of \$3,731.

### COMMENTARY

Boston is a non-profit water utility engaged in the distribution and sale of water to approximately 675 customers in Nelson County, Kentucky.

### TEST PERIOD

Boston proposed and the Commission has accepted the 12-month period ending December 31, 1983, as the test period in this matter.

### REVENUES AND EXPENSES

Boston incurred an operating loss of \$6,714 for the test period. Boston proposed numerous adjustments to revenues and expenses in order to reflect more current operating conditions. The Commission has accepted Boston's pro forma revenues and expenses with the following exceptions:

#### Operating Revenue

Boston's actual operating revenue from metered water sales for the test period was \$74,651. No pro forma adjustment was proposed other than to recognize an additional 42 customers and the proposed rates. During the interim between the preparation of the original filing and reopening of the case, Boston was permitted to increase the rates it could charge in Case Nos. 8899<sup>1</sup> and 9214,<sup>2</sup> which were not reflected in the proposed adjusted

---

<sup>1</sup> An Adjustment of the Rates of Boston Water District, dated December 15, 1983.

<sup>2</sup> Purchased Water Adjustment of Boston Water District, dated January 23, 1985.

level. Therefore, the Commission has normalized test period operating revenue from metered water sales by \$20,572, which results in an adjusted test period level of \$95,223.<sup>3</sup>

Boston proposed a pro forma adjustment of \$4,250 to test period operating revenue from metered water sales to recognize the new customers that were to be added on to the system due to the pending construction project. Boston calculated its proposed adjustment by using an estimated 42 customers, an average monthly water usage schedule, and the rates that Boston proposed in this present case. At the hearing Mr. Ron Lovan, consulting engineer on this construction project, stated that they now expect 56 new customers.<sup>4</sup> Thus, the Commission has recalculated this adjustment by pro rating the usage of the additional 14 customers based on Boston's proposed average monthly water usage schedule and the increased rates that were granted in Case No. 9214. The Commission arrived at an adjustment of \$5,977, an increase of \$1,727 over Boston's proposed adjustment. Therefore, the previously adjusted operating revenue from metered water sales of \$95,223 has been increased by \$5,977 to arrive at an adjusted level of \$101,200.

#### Purchased Water

Boston proposed a pro forma water expense of \$34,267 which reflected the increased water demand that would arise from the 42

---

<sup>3</sup> Original Application, Exhibit M (Billing Analysis) X the Rates Granted in Case No. 9214.

<sup>4</sup> Transcript of Evidence ("T.E.") dated May 22, 1985, page 9.

new customers that were expected to be added on to the system. Boston's test period water purchases and sales were 60,606,000 gallons and 45,234,000 gallons, respectively. This reflects a water loss of 25.36 percent, which is in excess of the maximum of 15 percent allowed by the Commission for rate-making purposes. Thus, the Commission has determined the allowable gallons of purchased water for rate-making purposes to be 53,216,471 gallons.<sup>5</sup> In addition Boston incurred a rate increase from its supplier, the City of Bardstown, effective December 1, 1984, and now expects that an additional 14 customers will be added onto the system. The Commission is of the opinion that the test period water purchases should be adjusted to reflect the allowable test period water purchases, the increased cost of water, and the additional new customers that are to be added onto the system. Therefore, Boston's proposed purchased water expense has been increased by \$7,392 which results in an adjusted level of \$41,659.<sup>6</sup>

Pro Form Adjustments

Boston proposed several pro forma adjustments to test period expenses based on the assumption that the operating

---

<sup>5</sup> 45,234,000 gallons ÷ 0.85 = 53,216,471 gallons

<sup>6</sup>

Test Period Allowable Gallons Purchased	53,216,471 gallons
Additional Customers	<u>2,329,412 gallons</u>
Test Period Adjusted Gallons Purchased	55,545,883 gallons
Water Costs: \$0.75 per 1,000 gallons	\$ 0.00075
Adjusted Test Period Water Cost	<u>\$ 41,659</u>

Additional Customers = [165,000 gallons (Average Monthly Water Usage for 56 New Customers) X 12] ÷ 0.85 = 2,329,412 gallons

expenses were directly related to the number of customers serviced. In responses to the initial information request dated May 7, 1984, Boston stated that it was of the opinion the adjustments were fair, just and reasonable and that no other consideration was given by Boston to any alternative method of calculating the proposed adjustments. At the hearing Mr. William C. Babington, Municipal Financial Consultant, agreed that some operating expenses were not directly related to the number of customers but went on to state that all of the adjustments that Boston proposed were directly proportionate to the increase in customers.<sup>7</sup>

It has been the Commission's practice to allow only known and measurable pro forma adjustments for rate-making purposes. Boston has not provided the Commission with any documentation to support its contention that these operating expenses were directly related to the number of customers that it serves and therefore it is the Commission's opinion that these adjustments do not meet the criteria of being either known or measurable. The Commission has noted that the adjustments for electricity and meter reading appear reasonable and has allowed these adjustments; however it

---

<sup>7</sup> T.E., page 27.

has reduced the proposed operating expenses by \$1,201 which may not be directly related to the level of customers.<sup>8</sup>

Therefore, Boston's test period operations have been adjusted as follows:

	<u>Boston's Adjusted</u>	<u>Commission Adjustment</u>	<u>Commisson Adjusted</u>
Operating Revenue:			
Metered Water Sales	\$74,651	\$26,549	\$101,200
Truck Sales	399	-0-	399
Forfeited Discounts	<u>1,727</u>	<u>-0-</u>	<u>1,727</u>
Total Operating Revenue	\$76,777	\$26,549	\$103,326
Operating Expenses	<u>81,569*</u>	<u>6,191</u>	<u>87,760</u>
Operating Income	<u>\$&lt;4,792&gt;</u>	<u>\$20,358</u>	<u>\$ 15,566</u>

\* \$71,180 (Exhibit 0) + \$7,209 (Depreciation Existing Plant Less Contributions) + \$1,680 (Depreciation New Plant) + \$1,500 (Amortization of Rate Case Expense)

#### REVENUE REQUIREMENTS

Boston's annual debt sevice based on debt outstanding during the test period and debt proposed in this proceeding is \$20,831.<sup>9</sup> Boston's adjusted net operating income of \$15,566 plus interest income from operations of \$5,700 provides a debt service coverage ("DSC") of 1.02X. The Commission is of the opinion that

<sup>8</sup>	Operation Supplies and Expense (602)	\$ 178
	Chemicals Expense	\$ 20
	Operation Supplies and Expense (632)	\$ 18
	Operation Labor (640)	\$ 152
	Maintenance-Reservoirs and Standpipes	\$ 48
	Maintenance-Mains	\$ 370
	Accounting and Collecting	\$ 264
	Office Supplies and Other Expenses	\$ 84
	Transportation Expense	\$ 67
	Total	<u>\$1201</u>
<sup>9</sup>	Existing Bond	
	Bonds (5-year average principal 1986-90)	\$6,800
	Interest (5-year average 1986-90)	7,573
	Proposed Bond	
	\$84,000 (Amount) X 0.0768 (Amort. Factor)=	6,458
	Total Debt Service	<u>\$20,831</u>

this coverage is unfair, unjust and reasonable. To achieve a DSC of 1.2X, which the Commission is of the opinion is the fair, just and reasonable coverage necessary for Boston to pay its operating expense and to meet the requirements of its lenders, Boston would require a net operating income of \$24,997. Accordingly, the Commission has determined that additional revenue of \$3,731 is necessary to provide the 1.2X DSC which will ensure the financial stability of Boston. Boston initially requested an increase of \$19,392 which is approximately what it will realize when the increase granted in this case is combined with the increase granted in Case No. 8899.

#### ADEQUACY OF PROPOSED FIRE HYDRANTS

Boston proposes to install approximately 11 conventional fire hydrants in the New Hope area of Nelson County as part of this project. While the Commission shares Boston's concern about the safety of its customers, the Commission is not of the opinion that Boston should mislead the public as to the capability of its water system. It is the Commission's opinion that the majority of the general public observing a typical fire hydrant assumes that the hydrant possesses the hydraulic capability of supplying adequate water for fire protection purposes. The record in this case indicates that the fire hydrants proposed by Boston are not capable of meeting standard service requirements for fire hydrants rated by the Insurance Services Office of Kentucky. Boston's engineer stated in testimony before the Commission that the hydrants were provided for purposes of flushing the water lines. In view of the evidence in this matter the Commission recommends



that Boston seriously reconsider the prudence of installing conventional fire hydrants as proposed. The Commission suggests that Boston investigate alternative installations, such as flush-mounted hydrants, which would perform the same function as the proposed hydrants without confusing the general public as to the availability of fire protection.

#### FINDINGS AND ORDERS

The Commission, after consideration of the application and evidence of record and being advised, is of the opinion and finds that:

1. Public convenience and necessity require that the construction proposed in the application and record be performed and that a certificate of public convenience and necessity be granted.

2. The approved construction includes about 4 miles of water mains, a booster chlorinator station, and miscellaneous appurtenances thereto. The low bid received for the proposed work totaled \$156,363, which will require about \$215,000 after allowances are made for fees, contingencies and other indirect costs.

3. Any deviations from the approved construction which could adversely affect service to any customer should be subject to prior approval of this Commission.

4. The financing proposed by Boston for this project will be needed to pay for the work herein approved. Boston's financing plan should, therefore, be approved.

5. Boston should file with the Commission duly verified documentation which shows the total costs of construction including all capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date that construction is substantially completed. Said construction costs should be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for Water Utilities prescribed by this Commission.

6. Boston's contract with its Engineer should require the provision of construction inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering. The supervision and inspection should insure that the construction work is done in accordance with the contract drawings and specifications and in conformance with the best practices of the construction trades involved in the project.

7. Boston should require the Engineer to furnish a copy of the record drawings and a signed statement that the construction has been satisfactorily completed in accordance with the contract drawings and specifications within 60 days of the date of substantial completion of this construction.

8. Boston should file with the Commission a copy of all contractual agreements for the provision of services or the purchase of services which are subject to the approval of this Commission.

9. The rates proposed by Boston will produce revenues in excess of the revenues found reasonable herein and should be denied upon application of KRS 278.030.

10. The rates in Appendix A are fair, just and reasonable rates for Boston in that they will produce annual operating revenues of approximately \$105,330 including other miscellaneous operating revenues and should be approved. These revenues will be sufficient to meet Boston's operating expenses found reasonable for rate-making purposes, service its debt, and provide a reasonable surplus.

IT IS THEREFORE ORDERED that Boston be and it hereby is granted a certificate of public convenience and necessity to proceed with the waterworks improvements projects set forth in the drawings and specifications of record hereby approved.

IT IS FURTHER ORDERED that Boston shall comply with all matters set out in Findings 3 through 8 as if the same were individually so ordered.

IT IS FURTHER ORDERED that the rates proposed by Boston be and they hereby are denied.

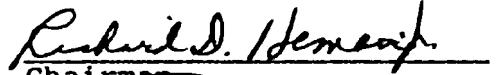
IT IS FURTHER ORDERED that the rates in Appendix A be and they hereby are approved for service rendered by Boston on and after the date of this Order.


IT IS FURTHER ORDERED that within 30 days from the date of this Order Boston shall file with this Commission its revised tariff sheets setting out the rates approved herein.

Nothing contained herein shall be deemed a warranty of the Commonwealth of Kentucky, or any agency thereof, of the financing herein authorized.

Done at Frankfort, Kentucky, this 8th day of July, 1985.

PUBLIC SERVICE COMMISSION

  
Chairman

  
Vice Chairman

  
Commissioner

ATTEST:

\_\_\_\_\_  
Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 9320 DATED JULY 8, 1985.

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

RATES: Monthly

Class A 1-Inch Meter

First 15,000 gallons	\$ 18.52 Minimum Bill
Over 15,000 gallons	1.21 per 1,000 gallons

Class B. 3/4-Inch Meter

First 4,000 gallons	\$ 8.83 Minimum Bill
Next 11,000 gallons	1.44 per 1,000 gallons
Over 15,000 gallons	1.21 per 1,000 gallons

Class C 3/4-Inch Meter

First 2,000 gallons	\$ 7.40 Minimum Bill
Next 1,000 gallons	1.85 per 1,000 gallons
Next 2,000 gallons	1.44 per 1,000 gallons
Over 5,000 gallons	1.21 per 1,000 gallons

Special Contract 2-Inch Meter

First 25,000 gallons	\$ 31.91 Minimum Bill
Over 25,000 gallons	1.21 per 1,000 gallons

Truck Station

All Water	\$ 3.31 per 1,000 gallons
-----------	---------------------------