#### COMMONWEALTH OF KENTUCKY

# BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF HENDERSON COUNTY ) WATER DISTRICT, OF HENDERSON AND ) WEBSTER COUNTIES, KENTUCKY FOR ) CASE APPROVAL OF CONSTRUCTION, FINANCING ) AND INCREASED WATER RATES )

CASE NO. 9577

# ORDER

Henderson County Water District ("Henderson") filed its Application and Motion to reopen Case No. 9237 on February 19, 1986, wherein it sought approval of adjustments to its water service rates, authorization to construct a \$2,762,500 waterworks improvement project and approval of its plan of financing for this project. By Order entered May 15, 1986, the instant case was established with the record of Case No. 9237 incorporated herein by reference. The project funding includes a \$1,390,000 loan from the Farmers Home Administration ("FmHA"), a \$1,323,000 grant from the FmHA and contributions of \$49,500 from applicants for service in the proposed project area. The FmHA loan will be secured by waterworks revenue bonds maturing over a 40-year period at an interest rate of 9 1/8 percent per annum.

The proposed construction will provide water service to about 330 new customers and improve the hydraulic capacity of the system, Drawings and specifications for the proposed improvements by Hunter H. Martin & Associates, Engineers of Paducah, Kentucky, ("Engineer") have been approved by the Division of Water of the Natural Resources and Environmental Protection Cabinet.

A hearing was held in the offices of the Public Service Commission, in Frankfort, Kentucky, on September 19, 1986. There were no intervenors and no protests were entered.

Henderson requested rates which would produce an annual increase of \$171,811, determined in the section titled Billing Analysis and Rate Design. The Commission approves this increase.

## CONTINUITY OF ADEQUATE AND RELIABLE SERVICE

The evidence indicates that reliable and adequate service can be maintained throughout most of the expanded system after completion of the proposed construction. However, one area to be served has residual pressure below 30 psig, in violation of 807 KAR 5:066, Section 6 (1). The Engineer agrees that the low pressure area on Smith-Staples Road could be improved by the installation of a small booster pump or a hydropneumatic station to serve the affected customer or customers.

Henderson should monitor the adequacy of the expanded water distribution system after construction and if the level of service is inadequate or declining, it should take action to maintain the level of service in conformance with the regulations of the Commission.

#### TEST PERIOD

Henderson proposed and the Commission has accepted the 12-month period ending August 31, 1984, as the test period in this matter.

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#### **REVENUES AND EXPENSES**

Henderson reported a net operating income of \$110,424 for the test period, but proposed several pro forma adjustments to reflect the additional customers and post test period wage increases, for an adjusted net operating income of \$106,452. The Commission has determined that the adjustments are appropriate.

Henderson's pro forma test period operating accounts are as follows:

|                                | Henderson Water<br>Proposed Adjusted |
|--------------------------------|--------------------------------------|
| Operating Revenue:             |                                      |
| Water Sales                    | \$576,711                            |
| Forfeited Discounts            | 13,863                               |
| Total Operating Revenues       | \$590,574                            |
| Operating Expenses             | 535,730                              |
| Operating Income               | 54,844                               |
| Other Income                   | 51,608                               |
| Net Available for Debt Service | \$106,452                            |

# REVENUE REQUIREMENTS

With the debt proposed in this proceeding, Henderson's annual debt service is \$249,496.<sup>1</sup> Income available for debt service of \$106,452 and increased revenues of \$171,811<sup>2</sup> provide a debt

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|                                     | Amount            | Amortization<br>Factor | Debt<br>Service |
|-------------------------------------|-------------------|------------------------|-----------------|
| Existing Bonds:<br>7 1/8%; 40 years | \$1,665,000       | 0.07694                | \$128,099       |
| Proposed Bonds:<br>9 1/8%; 40 years | \$1,390,000       | 0.08734                | 121,397         |
| Total Debt Service                  |                   |                        | \$249,496       |
| \$748,522 (Revenues fro             | m proposed rates: | determined in          | the fol-        |

2 \$748,522 (Revenues from proposed rates: determined in the following section) - \$576,711 (Revenues at old rates) = \$171,811. service coverage ("DSC") of 1.12X. Henderson has experienced an increase of approximately 2783 customers since the test period due to normal expansion. Usually expansions of this type have no effect upon fixed costs or debt but will affect only variable costs such as purchased water. Therefore, there should be a positive effect upon DSC for rate-making purposes. Since, it would be virtually impossible to determine precisely the effect this would have upon variable costs, the Commission has not reflected the customer growth occurring since the test period in its rate-making calculations. Thus, the Commission has accepted \$171,811 of Henderson's proposed revenue increase and is of the opinion that it provides Henderson with adequate coverage to pay its operating expenses, meet the requirements of its lenders and ensure the financial stability of Henderson.

# BILLING ANALYSIS AND RATE DESIGN

On April 14, 1986, Henderson filed a revised Exhibit M, a billing analysis, showing the amount of revenue generated from its present and proposed rates. The summary of present usage converted for proposed rate increments shows revenue to be generated from water sales in the amount of \$739,360. There were several oversights in these calculations which, when corrected, justify proposed rates producing annual revenue of \$752,453.

Henderson proposed to make several changes in its present rate structure, a declining block type with seven steps, ranging

<sup>3 3550 (</sup>Customers: Transcript of Evidence, dated September 9, 1986, page 34) - 3272 (Customers during the test period) = 278.

from a minimum usage allowance of 2,000 gallons to an over 50,000gallon category. All customers are served under the same schedule.

Henderson proposed to establish individual rate schedules for each size connection. The rate schedule for 5/8-inch connections, the standard size for residential customers, will be a 4 step schedule. The other proposed schedules will be based on those rates with varying allowances for the minimum use. After reviewing Henderson's proposed rate schedule and its customers' usage patterns, it was determined that the proposed rate schedules would be in the best interest of Henderson and its customers and should be approved.

After reviewing the usage patterns of Henderson's larger sized customers it does not appear to be in the best interest of the customers to increase the minimum usage allowance as proposed in all rate schedules. Therefore, the minimum usage allowance for each size connection has been adjusted where necessary. The minimum usage to be allowed will be based on meter capacity.

An analysis made by the staff shows that by changing the minimum usage levels as discussed above the proposed rates will produce annual revenue in the amount of \$748,522.

## NON-RECURRING CHARGES

Henderson proposed to increase its connection charges for 5/8-inch and 3/4-inch connections from \$180 to \$400 and to increase its reconnection charge from \$5 to \$25. Henderson also proposed a meter deposit of 2 months' average water bill.

Review of the documentation in Appendix A establishes that the proposed connection fees and certain non-recurring charges are reasonable and should be approved.

#### FINDINGS AND ORDERS

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

1. With the installation of a hydropneumatic station, to address the low pressure area, public convenience and necessity require that the construction proposed in the application be performed and that a certificate of public convenience and necessity be granted.

2. The proposed construction consists of four 200,000gallon elevated water storage tanks, 2 booster pumping stations, renovation of 3 booster pumping stations, approximately 40 miles of 10-, 8-, 6-, 4-, 3-, and 2-inch diameter pipelines, and related appurtenances. The low bids totaled \$1,966,402 which will require about \$2,762,500 after allowances are made for fees, contingencies, other indirect costs, the additional construction outlined in Finding No. 1, and other construction being considered as a result of receiving bids lower than the final estimate.

3. Prior to the installation of the hydropneumatic station and any further construction, Henderson should obtain the Commission's approval of the pertinent design and cost information for this construction. Henderson should also file a copy of the approval letter from the Division of Water.

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4. Any deviations from the construction herein approved which could adversely affect service to any customer should be done only with the prior approval of the Commission.

5. Henderson should furnish duly verified documentation of the total cost of this project including the cost of construction and all other 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 the Commission.

6. Henderson's contract with its Engineer should require the provision of full-time resident inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering, to ensure 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. Henderson should require the Engineer to furnish a copy of the "as-built" drawings and a signed statement that the construction has been satisfactorily completed in accordance with the contract plans and specifications within 60 days of the date of substantial completion of this construction.

8. The financing plan proposed by Henderson is for the lawful objects within the corporate purpose of its utility operations, is necessary and appropriate for and consistent with

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the proper performance of its service to the public and will not impair its ability to perform that service and should, therefore, be approved.

9. The financing secured by Henderson for this project will be needed to pay for the work herein approved. Henderson's financing plan should, therefore, be approved.

10. The rates and charges in Appendix A are the fair, just and reasonable rates to be charged by Henderson in that they should produce gross metered water revenues of \$748,522.

11. Henderson's proposal to reduce the number of steps in its rate structure should be approved.

12. The proposed increase in connection fees and nonrecurring charges should be approved.

IT IS THEREFORE ORDERED that:

1. Henderson be and it hereby is granted a certificate of public convenience and necessity to proceed with the proposed construction project as set forth in the drawings and specifications of record herein on the condition that a hydropneumatic station be installed in accordance with Finding Number 1 and Finding Number 3 of this Order.

2. Henderson's financing plan consisting of an FmHA loan of \$1,390,000, an FmHA grant of \$1,323,000 and customer connection fees of \$49,500 be and it hereby is approved.

3. If under new FmHA loan conditions Henderson is notified and granted the option of accepting a lower interest rate at the date of closing, Henderson shall file with the Commission the FmHA

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notification of the lower interest rate and shall provide all correspondence from and to FmHA concerning this notification within 30 days of the closing date.

4. Henderson shall file a statement of the interest rate accepted from FmHA within 30 days of the date of closing.

5. If Henderson accepts an interest rate different from the rate approved herein, it shall file amended pages to its bond resolution and an amended amortization schedule.

6. If Henderson is eligible but does not take advantage of a lower interest rate at the time of closing, it shall fully document why the lower rate was not accepted showing an analysis of the higher costs associated with the loan over its life.

7. Henderson shall comply with all matters set out in Findings 4 through 7 as if the same were individually so ordered.

8. The rates and charges in Appendix A be and they hereby are approved as the fair, just and reasonable rates and charges to be charged by Henderson for service rendered on and after the date of this Order.

9. Henderson's proposed reduction in the number of steps in its rate structure be and it hereby is approved.

10. The proposed increase in connection fees and nonrecurring charges be and it hereby is approved.

11. Within 30 days from the date of this Order, Henderson shall file its revised tariff sheets setting out the rates and charges approved herein.

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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 10th day of November, 1986.

PUBLIC SERVICE COMMISSION

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ATTEST:

Executive Director

#### APPENDIX A

# APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 9577 DATED NOVEMBER 10, 1986

The following rates and charges are prescribed for the customers in the area served by Henderson 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

# 5/8-Inch Connections

| First 2,000 Gallons  | <pre>\$ 8.00 Minimum Bill</pre>  |
|----------------------|----------------------------------|
| Next 8,000 Gallons   | 2.60 Per 1,000 Gallons           |
| Next 20,000 Gallons  | 1.90 Per 1,000 Gallons           |
| Over 30,000 Gallons  | 1.40 Per 1,000 Gallons           |
| 3/4-Inch Connections |                                  |
| First 3,000 Gallons  | <pre>\$ 10.60 Minimum Bill</pre> |
| Next 7,000 Gallons   | 2.60 Per 1,000 Gallons           |
| Next 20,000 Gallons  | 1.90 Per 1,000 Gallons           |

# 1-Inch Connections

| First | 5,000  | Gallons |
|-------|--------|---------|
| Next  | 5,000  | Gallons |
| Next  | 20,000 | Gallons |
| Over  | 30,000 | Gallons |

Over 30,000 Gallons

## 1 1/2-Inch Connections

| First | 10,000 | Gallons |
|-------|--------|---------|
| Next  | 20,000 | Gallons |
| Over  | 30,000 | Gallons |

# 2-Inch Connections

| First | 16,000 | Gallons |
|-------|--------|---------|
| Next  | 14,000 | Gallons |
| Over  | 30,000 | Gallons |

\$ 15.80 Minimum Bill 2.60 Per 1,000 Gallons 1.90 Per 1,000 Gallons 1.40 Per 1,000 Gallons

1.40 Per 1,000 Gallons

- \$ 28.80 Minimum Bill
  1.90 Per 1,000 Gallons
  1.40 Per 1,000 Gallons
- \$ 40.20 Minimum Bill
  1.90 Per 1,000 Gallons
  1.40 Per 1,000 Gallons

# 3-Inch Connections

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| First 30,000 Gallons<br>Over 30,000 Gallons                          | <pre>\$ 66.80 Minimum Bill  1.40 Per 1,000 Gallons</pre> |
|--|--|
| 4-Inch Connections   |  |
| First 50,000 Gallons<br>Over 50,000 Gallons                          | \$ 94.80 Minimum Bill<br>1.40 Per 1,000 Gallons          |
| 6-Inch Connections   |  |
| First 100,000 Gallons<br>Over 100,000 Gallons                        | \$164.80 Minimum Bill<br>1.40 Per 1,000 Gallons          |
| Connection Fees  |  |
| 5/8 and 3/4-Inch Connections<br>1-Inch and larger                    | \$400.00<br>At Cost                                      |
| SPECIAL CHARGES  |  |
| Reconnection Charge after<br>disconnection for nonpayment<br>of bill | \$ 25.00   |
| Deposits   | Two months' average water                                |

iwo months. average water bill