

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC BIG SANDY WATER DISTRICT'S)	
UNACCOUNTED-FOR WATER LOSS)	CASE NO.
REDUCTION PLAN, SURCHARGE AND)	2022-00301
MONITORING)	

ORDER

By Order issued September 13, 2022, in Case No. 2022-00044¹ the Commission approved an unaccounted-for water loss reduction surcharge for Big Sandy Water District (Big Sandy District), and ordered Big Sandy District to file a qualified infrastructure improvement plan with the Commission. The Commission opened this proceeding to monitor Big Sandy District's surcharge billings, collection, deposits, and expenditures. On December 16, 2022, Big Sandy District filed its infrastructure improvement plan, and on February 10, 2023, Big Sandy District filed a motion to amend its infrastructure improvement plan, as well as an amended plan.

LEGAL STANDARD

The Commission approved a \$6.42 per customer per month surcharge for five years to provide Big Sandy District funds to address its excessive unaccounted-for water loss.² Pursuant to Commission regulation 807 KAR 5:066, Section 6(3,) for ratemaking purposes a utility's unaccounted-for water loss shall not exceed 15 percent of the total

¹ Case No. 2022-00044, *Electronic Application of Big Sandy Water District for an Adjustment of Its Water Rates Pursuant to 807 KAR 5:076* (Ky. PSC Sept. 13, 2022).

² Case No.2022-00044, Sept. 13, 2022 Order at 22.

water produced or purchased, excluding water consumed by a utility in its own operations. In its 2020 annual report, Big Sandy District reported water loss of 44.34 percent.³

Big Sandy District was ordered to file a qualified infrastructure improvement plan with the Commission. According to the Commission's final Order in Case No. 2022-00044, and the opening Order in this proceeding, the infrastructure improvement plan should contain a "comprehensive unaccounted-for water loss reduction plan that establishes priorities and a time schedule for eliminating each source of unaccounted-for water loss and provided a detailed spending plan for the proceeds of the surcharge."⁴

DISCUSSION AND FINDINGS

December 16, 2022 Plan

Big Sandy District filed a prioritized list of what it considered to be its needs to address its unaccounted-for water loss. The item that the district considered to be of primary importance was the purchase of two trucks for use in leak detection and repair work. The district estimated two trucks would cost \$80,000.⁵

Second, Big Sandy District reported that it needed to update its leak detection equipment. Big Sandy District stated that the device it is currently using was purchased in 2005 and has a limited ability to detect leaks.⁶ Big Sandy District proposed to purchase a new, more sensitive listening device, as well as water leak loggers to be used in meter

³ *Annual Report of Big Sandy District to the Public Service Commission for the Year Ended December 31, 2020* (2020 Annual Report) at 57.

⁴ Opening Order, ordering paragraph 3; Case No. 2022-00044, Sept. 13, 2022 Order, ordering paragraph 8a.

⁵ Big Sandy District Qualified Infrastructure Improvement Plan (filed Dec. 16, 2022) (Plan) at unnumbered page 2.

⁶ Plan at unnumbered page 2.

zones experiencing higher than normal usage. The district estimated the cost of these items would be \$18,738.⁷

As its third identified funding priority, Big Sandy District proposed to use \$81,665 of surcharge proceeds to replenish its depreciation reserve fund.⁸ Big Sandy District stated that it had purchased 1,100 meters and it was required by Kentucky Rural Water Association to replenish the fund in the amount of \$100,000. Big Sandy District stated that \$81,665 remains to be returned to the fund, and it requested to use surcharge proceeds for this purpose.

Fourth, Big Sandy District stated that it plans to purchase 1,000 additional meters to replace existing meters and return the district to compliance with the meter-testing standards set forth in Commission regulation 807 KAR 5:066, Section 16, which establishes the maximum number of years a water meter may remain in service before it must be tested for accuracy. Big Sandy District estimated the cost of 1,000 new meters to be \$216,000.⁹

Fifth, Big Sandy District proposed to hire two part-time employees to work exclusively in leak detection and repair. The district anticipated each employee would work 30 hours a week, 50 weeks per year, at a starting hourly wage of \$15.00. Big Sandy District estimated the annual cost to employ two part-time employees would be \$48,442.50.¹⁰

⁷ Plan at unnumbered page 2.

⁸ Plan at unnumbered page 2.

⁹ Plan at unnumbered page 2.

¹⁰ Plan at unnumbered page 2.

Sixth, Big Sandy District proposed to update its current meter building or build a replacement. The estimated cost to do this was \$180,000.¹¹ Also, the district proposed to spend \$27,815 on a new meter test bench.¹²

Seventh, Big Sandy District proposed to purchase ten pumps, variable frequency drives and motors, for an estimated cost of \$168,000.¹³ Additionally, Big Sandy District proposed to purchase one portable generator at an estimated cost of \$89,668.¹⁴ Big Sandy District stated that these items would help avoid potential water loss due to pumping and power failures.¹⁵

Finally, Big Sandy District stated that it was considering entering into a contract with Integrity Water and Energy, LLC (Integrity).¹⁶ Big Sandy District stated that Integrity can provide the district's employees with training on leak detection, as well as mapping and GPS coordinates for meters valves, hydrants, and existing taps in Big Sandy District's system. Big Sandy District also stated that Integrity could add additional zone meters to Big Sandy District's system.¹⁷

February 10, 2023 Amended Plan

Along with a motion to amend its qualified infrastructure improvement plan, Big Sandy District filed an amended plan on February 10, 2023. In its motion to amend, Big

¹¹ Plan at unnumbered page 2.

¹² Plan at unnumbered page 2.

¹³ Plan at unnumbered page 2.

¹⁴ Plan at unnumbered page 2.

¹⁵ Plan at unnumbered page 2.

¹⁶ Plan at unnumbered page 3.

¹⁷ Plan at unnumbered page 3.

Sandy District stated that after additional consideration of the existing labor market, it had determined that hiring one full-time employee to perform leak detection work was preferable to hiring two part-time employees. Further, Big Sandy District stated that it had purchased one truck from general funds, and was seeking to purchase only one truck with surcharge proceeds. Finally, Big Sandy District requested to use surcharge funds to cover the costs of replacing a stream crossing that was the location of a major leak in its system, and proposed to use surcharge proceeds to establish a Repair Reserve Fund to be used to cover the costs of materials and outside labor and other services necessary to make repairs to its system when leaks are discovered.

On April 14, 2023, the Commission entered an Order approving Big Sandy District's permanent use of \$88,576 of surcharge proceeds to cover a portion of the cost of replacing the stream crossing, and the temporary use of \$48,412.93 of surcharge proceeds for the same purpose conditioned upon Big Sandy District replacing these funds in the surcharge account upon receipt of Cleaner Water grant funds from the Kentucky Infrastructure Authority.

Concerning its request to use surcharge funds to purchase a truck for use in its leak detection efforts, Big Sandy District stated that it had already purchased one truck using general funds, because it could not delay the purchase, but argued that it needed another truck because its current vehicle fleet is old and has significant mileage.¹⁸ Big Sandy District revised its cost estimate for the purchase of a truck to \$65,000.¹⁹ Big Sandy District stated this was done in order to include a contingency to account for

¹⁸ Big Sandy District's Amended Infrastructure Improvement Plan (filed Feb. 10, 2023) (Amended Plan) at 5.

¹⁹ Amended plan at 5.

potential increases due to supply chain problems.²⁰ Having reviewed the request, the Commission finds there is a suitably close nexus between the purchase of a truck and the goal of reducing unaccounted-for water loss to approve the use of surcharge proceeds for this purpose. Big Sandy District needs reliable, adequate transportation for its personnel and materials in order to locate and repair leaks. The Commission reminds Big Sandy District that if it chooses to finance the purchase of a truck, rather than wait to accumulate the needed surcharge proceeds, the financing for this purchase is subject to Commission approval as set forth in KRS 278.300.

Without stating why, Big Sandy District proposed to hire one full-time employee, rather than two part-time employees, to engage solely in leak detection and repair.²¹ Further Big Sandy District stated that this employee is expected to work 40 hours a week at a starting hourly wage of \$15. The estimated annual cost of employing this person, including federal payroll taxes and employer pension contributions is \$40,872.²² Having reviewed the request, the Commission finds that dedicating the labor of one full-time employee to leak detection and repair is an action that should assist the district in reducing its unaccounted-for water loss, and therefore the Commission approves this request. However, the Commission expects Big Sandy District to completely dedicate this employee to leak detection and repair, and not utilize this employee for general duties.

In its amended plan, Big Sandy District restated its requests to replenish its depreciation reserve fund with \$81,665 of surcharge proceeds; replace or renovate its

²⁰ Amended Plan at 5.

²¹ Amended Plan at 6.

²² Amended Plan at 6.

meter facility; purchase an additional 1,000 new meters, a water listening device, leak loggers, ten pumps, one portable generator, and a new meter-test bench; and retain the services of a water loss specialist, such as Integrity.²³ Big Sandy District did not make any adjustments to its estimated cost to purchase the meters or any of the other equipment it proposed to purchase.

Having considered the proposal, the Commission finds that the use of \$81,665 of surcharge proceeds to replenish depreciation reserve funds is inappropriate and should be denied. Big Sandy District entered into the commitment to purchase meters and replenish its reserve fund in February 2020,²⁴ more than two years before the surcharge was approved. The purpose of the surcharge is to provide Big Sandy District with funds it would not ordinarily have and to direct those funds toward spending that will reduce unaccounted-for water loss. The proposal to replenish the reserve fund is a request to use surcharge proceeds for what would otherwise be a normal operating expense and obligation of the utility. The intended use of surcharge proceeds is to make funds available for water loss reduction efforts that would otherwise not occur, not to provide additional funds to meet pre-existing commitments.

The Commission, having considered Big Sandy District's request to establish a Repair Reserve Fund, finds that this request should also be denied. The Commission will consider requests to use surcharge proceeds to cover the costs of materials and outside labor to repair leaks as those costs are incurred. Big Sandy District should file these requests into the record of this proceeding and should provide documentation of the

²³ Amended Plan at 5.

²⁴ Amended Plan at 5.

expense, including an explanation as to how it is related to reducing unaccounted-for water loss.

The Commission notes that according to its records Big Sandy District has been out of compliance with the meter-testing standards set forth in Commission regulation 807 KAR 5:066, Section 16(1) for a number of years.²⁵ Aging and untested meters often contribute to unaccounted-for water loss. Because the Commission wants Big Sandy District to return to compliance with the meter-testing regulation as soon as possible to eliminate one potential cause of water loss, the Commission finds that Big Sandy District should use surcharge proceeds to purchase the 1,000 new meters as proposed.

The purchase of a new water listening device and leak logging devices will enable Big Sandy District to locate leaks on its system in a timely and efficient manner and thereby reduce unaccounted-for water loss. Before a leak can be repaired it must be located accurately, and the purchase of equipment to reliably locate leaks is a proactive step toward reducing Big Sandy District's unaccounted-for water loss. Therefore the Commission finds that surcharge proceeds should be used to purchase a leak detection device and leak logging devices as proposed. As with the purchase of a truck, if Big Sandy District chooses to finance the purchase of meters, the listening device or the leak logging devices rather than accumulate surcharge proceeds to make the purchases, Big Sandy District must comply with the requirements of KRS 278.300.

²⁵ The Commission's Division of Inspections' records indicate that Big Sandy District was inspected on August 27, 2014; October 8, 2015; June 9, 2017; June 4, 2018; September 16, 2019; February 13, 2020; and April 11, 2023. The report for each inspection indicated Big Sandy District was out of compliance with the meter-testing requirement. The most recent inspection indicated that Big Sandy District has 1,500 meters currently in service for more than ten years without being tested.

Some of the purchases Big Sandy District proposed to make with surcharge proceeds are items the Commission finds are more appropriate to include in a sound capital spending plan. Big Sandy District indicated it planned to purchase ten pumps and a portable generator to be used in the event of pump or power failure. These items are not directly related to reducing the unaccounted-for water loss that the system is currently experiencing. Rather, their use is more preventative in nature. For this reason the Commission does not approve the use of surcharge proceeds for these purchases, but encourages Big Sandy District to develop and fund a capital spending plan to include these items.

Big Sandy District's proposal to replace or renovate its meter testing facility and replace its meter testing bench did not include a cost benefit analysis. Big Sandy District estimated the cost to replace or renovate the meter building is \$180,000, and a new meter bench is estimated to cost \$27,815.²⁶ The Commission does not approve the use of surcharge proceeds for this purpose, but encourages Big Sandy District to explore the option of utilizing a third-party contractor to test its meters and compare those costs to the cost of replacing the facility before making a final decision on this matter. Should Big Sandy District consider all possible alternatives and still conclude that the most reasonable, least cost solution is to replace the facility, the Commission encourages Big Sandy District to seek funding for this project from another source. Additionally, based on the evidence presented in this proceeding, the Commission finds that the construction anticipated by Big Sandy District requires a Certificate of Public Convenience and Necessity.

²⁶ Amended Plan at 5.

In regards to Big Sandy District's proposal to engage the service of a firm specializing in water loss reduction, the Commission lacks the necessary information to determine whether this is an appropriate use of surcharge proceeds. Whether the use of surcharge proceeds for this purpose is appropriate depends upon the specific services provided by such a firm. Identifying the specific source and location of leaks and developing a comprehensive asset improvement plan to remediate known causes of water loss is of primary importance, as is taking the steps to implement an asset improvement plan. Should Big Sandy District engage the services of such a firm, the Commission will consider a request to use surcharge proceeds based upon the scope and terms specific to such an arrangement.

IT IS THEREFORE ORDERED that:

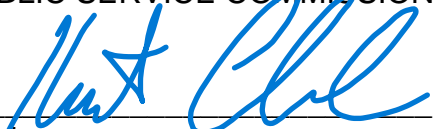
1. Big Sandy District is granted authority to use surcharge proceeds to purchase 1,000 new meters, a listening device and leak logging devices, and a truck for use in water loss detection efforts.
2. Big Sandy District is granted authority to use surcharge proceeds to fund one full-time employee to work exclusively on leak detection and repair.
3. Big Sandy District's request to use \$81,665 to replenish its reserve fund is denied.
4. Big Sandy Districts request to use surcharge proceeds to renovate or construct a meter building is denied.
5. Big Sandy District's request to purchase a meter testing bench, ten pumps and a generator using surcharge proceeds is denied.

6. Big Sandy District shall file into the record of this proceeding requests to use surcharge funds to cover the costs of materials and outside labor used to repair leaks in its system.

7. Big Sandy District shall include in its monthly activity reports filed into the record of this proceeding documentation of the final costs of the items approved for purchase in this Order.

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PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ENTERED
MAY 30 2023
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KENTUCKY PUBLIC
SERVICE COMMISSION

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