

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

| | | |
|-----------------------------|---|----------|
| ELECTRONIC SOUTHERN WATER & |) | |
| SEWER DISTRICT’S METER |) | CASE NO. |
| REPLACEMENT SURCHARGE |) | 2020-121 |
| MONITORING |) | |

**ANNUAL REPORT
PERIOD FROM YEARS 2023 TO 2024**

Surcharge Billing, Collections and Deposits

As the PSC is aware, the Commission approved a monthly meter replacement surcharge of Five Dollars and Twenty-Five Cents (\$5.25) effective November 7, 2019 in Case 2019-131. This surcharge’s initial purpose was to fund the replacement of customer water meters, a large number of which were zero read meters. *See Nov. 7, 2019 Order in 2019-328.* Subsequently, the Commission granted Southern’s (herein referred to as “Southern”) motion to amend the purpose of the meter replacement surcharge to additionally include the purchase and installation of Ten Master Meters. Finally, Southern requested and was granted permission from the PSC to use the proceeds of this surcharge to purchase an additional 50 RG3 water meters to be used when one of the new RG3 meters must be repaired.

At the start of this reporting period, April 1, 2023, \$217,853.48 remained in the Surcharge Bank Account. During the month of April 2022, Southern collected and deposited an additional

\$17,085.10 into said bank account. On April 11, 2024, Peoples Bank charged Southern's Surcharge account \$307.93 for an "analysis results charge." Southern serviced the Co Bank debt with a payment of \$24,741.22 on April 19, 2023. At the close of April 2023, the Surcharge Bank Account totaled \$209,889.43.

During the Month of May of 2023, Southern collected and deposited an additional \$26,439.90 into the surcharge account. On May 10, 2023 \$93,940 was paid to "Wascon" for materials used for the master meter project. Additionally, on this day Southern paid \$61,650 to "Albon Meade & Sons Construction" for the preparation of the Master Meter Sites. \$24,739.65 was paid to Co-Bank to service the meter replacement loan. Peoples Bank charged Southern \$284.73 on May 11, 2023 for an "analysis results charge." As of the last day of April 2023, the surcharge bank account totaled \$55,714.95.

At the start of June 2023, the Surcharge Bank Account totaled \$55,714.95. During this month, an additional \$27,582.34 was added to the surcharge bank account. On June 20, 2023 \$24,735.34 was deducted from the Surcharge Bank Account to service the Co-Bank Debt. This bank account held \$58,561.81 at the end of June 2023.

During the month of July 2023 an additional \$27,777.05 was added to this account. On July 19, 2023, Southern paid 24,741.22 to Co-Bank to service the water meter loan. Additionally, Southern ordered new checks for this account on July 21, 2023 for \$102.59. This bank account totaled \$61,495.05 as of the end of July 2023.

On August 1, 2023, the Surcharge Bank Account totaled \$61,495.05. During this month an additional \$27,739.86 was collected from the surcharge and deposited into the bank account. On August 21, 2023, Southern paid \$24,739.86 to Co-Bank to service the new meter loan.

Southern had \$64,113.76 in the surcharge account as of September 1, 2023. An additional \$28,034.63 was collected from the surcharge and deposited into the Surcharge Bank Account. On September 19, 2022, Southern paid Co-Bank \$24,742.82 to service the meter loan.

On October 1, 2023, the surcharge account totaled \$67,405.57. An additional \$27,511.75 was added to this account during October of 2023. On October 17, 2023, Southern's check to Co-Bank in the amount of \$24,739.91 cleared the surcharge bank account.

At the start of November 2023, the Surcharge Bank Account totaled \$70,177.41. \$27,768.92 was collected from the surcharge and deposited into the bank account in the month of November 2023. On November 21, 2023, Southern paid Co-Bank \$24,737.03 to service the water meter loan. Additionally, on November 15, 2023, Peoples Bank deducted \$90.28 from the Surcharge Bank Account for "Harland Clarke Chk Orders".

On December 1, 2023, the surcharge account totaled \$73,119.02. During the Month of December, an additional \$25,818.73 was added to the Surcharge Bank Account. On December 27, 2023, Southern paid \$24,742.99 to Co-Bank to service the water meter debt.

At the beginning of 2024, the Surcharge Bank Account totaled \$74,194.76. During the month of January of 2024, \$19,057.04 was added to the bank account. On January 17, 2024, Southern serviced the Co-Bank Debt with a payment of \$23,952.05.

On February 1, 2024, the Surcharge Bank Account totaled \$69,299.75. During February of 2024, \$16,288.58 was collected and deposited into the bank account. \$24,737.14 was paid to Co-Bank on February 21, 2023 to service the meter loan debt.

The Surcharge Bank Account totaled \$60,851.19 on March 1, 2024. During this month, Southern Collected and deposited \$29,515.37 into the Surcharge Bank Account. Peoples Bank charged the surcharge bank account \$95.46 for “Harland Clarke Chk Orders.” Southern serviced the Co-Bank loan on March 19, 2024 with a payment of \$24,743.16. At the end of the reporting period, the surcharge bank account totaled \$65,527.94.

The average monthly loan obligation to Co-Bank was around \$24,674.36. The average amount of the surcharge collected and deposited into the Surcharge Bank Account each month over this reporting period is \$25,051.60. Thus, it appears that the Surcharge Bank Account takes in more than it pays to service the Co-Bank Loan every month.

Southern hereby requests that the surcharge continue to be charged and collected at least until the water meter loan has been paid in full.

WATER METERS

As of the start of this reporting period, Southern Water and Sewer District had successfully completed the installation of all new residential, commercial and master meters. In total, Southern has installed approximately 5,178 residential meters, 215 commercial meters and 11 master meters.

Southern has installed a total of eleven master meters. Each of these master meters were placed in discrete zones. Southern has divided up their water distribution system into small discrete zones that are serviced by one master meter. These master meter zones enable Southern to gather data regarding each of these zones which assists the utility in identifying the location of leaks. Southern has divided up the system into the following zones, with one master meter servicing each of these zones; Right Beaver, Eastern, Potter/Lackey, Hindman High Flow, Hindman Low Flow, Left Beaver, Toler Creek, Mouth of Toler, Salt Lick, Rt. 850 and Lick Skillett.

The total cost of the master meter project was \$155,590. Southern paid “Wascon Inc.” \$93,940 for the materials used to install the master meters. Albon Meade and Son’s Construction was paid \$61,650 for the preparation of the master meter sites. Southern saved money on the labor for this project via using in house labor to install the master meters.

The actual cost to purchase and install the master meters was less than the estimated cost of \$25,000 per meter. Southern was able to install these master meters under budget due to Southern’s decision to use a more cost-effective master meters than originally forecasted. Southern decided to go with ultra sonic strap on master meters instead of the traditional permanent master meters. These ultra sonic strap on meters are less expensive than the traditional master meters and can be easily moved from one location to another without requiring the cutting of pipes to install said meters.

Although the ultra-sonic strap-on master meters provide the utility with the luxury of being easily moved from location to location, this feature also makes these meters more prone to theft. Toward the end of the reporting period, Southern noticed that at least 3 of the master meters had been stolen. Vandals are able to remove these master meters easily. Although Southern was able to file an insurance claim to replace these master meters, these thefts have slowed the progress of the master meter project and wasted valuable time and resources of the utility.

Southern thought that they would be able to install one master meter per month. Southern actually installed these master meters much slower than anticipated. Progress was slower than expected due to the cancer diagnosis of one of the Master Meter installers as well as some theft of the master meters. During the master meter installation process, three master meter sites were vandalized. Southern had to report these thefts to the police and file an insurance claim. Additionally, Southern was required to re-order parts that were stolen from these sites and repair the stolen and vandalized master meter sites. Finally, progress on the master meter project was stalled due to Southern being required to move two master meter sites due to road construction.

Currently, Southern has 7 of the 11 master meters in operation. Three of these master meters are not operational due to theft. Southern is working to bring these master meters into operation. One of these master meters is not operational due to lack of signal. Southern thinks that this lack of signal issue should be fixed once we upgrade to Satellite phones.

Although Southern has successfully replaced all of their customer water meters, these new water meters have not met Southern's expectations. Around September 2022, Southern started noticing a sizeable portion of the RG3 meters malfunctioning and being zero read. It appeared as though the meters' batteries would go dead. Although these zero read meters are under warranty, Southern is responsible for the shipping cost of sending these meters back to the manufacturer so that they can be fixed. Additionally, Southern must find replacement meters to use while the faulty meters are being repaired. When Southern notices that a meter is dead, we must average the customer's bill and charge an average amount instead of the customer's actual usage. Southern feels as though this situation usually benefits the customer and short changes Southern.

Southern estimates that it pulls around 50 to 100 RG3 water meters per month from service for repair. On average, it takes approximately 6 months for these meters to be pulled from service, shipped for repair, repaired, and shipped back to Southern.

During this reporting period, Southern requested and received approval from the PSC to use the proceeds of the meter surcharge to purchase an additional 50 RG3 water meters. These extra meters were necessary to replace the faulty meters that had to be pulled from operation to be repaired. Even after receiving this additional inventory of meters, Southern does not have enough inventory of meters to replace every meter that must be pulled for repair.

Southern has reached out to RG3, the manufacturer of these meters, to inquire about a resolution to this problem. RG3 has stated that this should be a short-term problem as the issue

relates to a “bad run of solders” on the batteries. RG3 thinks that once the bad solder meters are repaired then the problem should cease to exist.

Southern has reached out to other water utilities in the area and has been informed that other water utilities that have used the RG3 water meters are suffering from the same issues. Southern feels as though it will continue to experience issues with these RG3 meters until they are replaced with a different type of meter that is more reliable.

Southern feels as though the explanation from RG3 regarding the meter defects being a short-term problem is not accurate. Southern continues to experience issues with the meters even after these meters have been repaired by the manufacturer.

WATER LOSS

During the reporting period, Southern averaged approximately 56% unaccounted for water loss each month. Although this percentage reduced a little over one percent from a year ago, Southern is not satisfied with the current high percentage of water loss. Southern recognizes this problem and has taken several measures to attempt to reduce this percentage.

Southern feels as though the main driver for this water loss is leaks in our distribution system. Although Southern does incur significant water loss from the theft of our water, Southern feels as though theft accounts for less water loss than leaking infrastructure.

Southern continues to catch people stealing water from our system. Southern has prosecuted these theft cases in the past but does not feel that prosecution is worth the time and effort. It is difficult to prove that a particular person is legally responsible for the theft.

Additionally, Southern feels as though the punishment for these crimes is not enough to discourage others from stealing water from our distribution system. Southern now focuses on finding and removing the apparatus used to steal our water. Once a theft is discovered, Southern ensures that any device(s) used to assist in the illegal tapping into our water lines is removed and/or destroyed. Southern removes the water lines from the base all the way to the main water line to prevent future theft. Southern reports these thefts to the appropriate authorities and continues to monitor the theft location for additional future losses.

Southern has attempted to educate their customers about water theft and the negative ramifications it has on their water bills. Southern has created an email address (theft@southernwatersewerdistrict.com) so that anyone can anonymously report theft of water. Additionally, Southern regularly posts about this email address and the issues associated with water theft on its Facebook page.

In order to address water loss, Southern is continuously working to repair leaks to our system. Southern uses a listening device to detect leaks. Additionally, Southern monitors run times, tank drops and pressure changes in an effort to locate leaks. The recent addition of master meters has assisted Southern in identifying leaks in our system. These master meters gather detailed information regarding the distribution of water throughout our system so that we can detect the likelihood of leaks in a given area of our system.

Another obstacle preventing Southern from adequately addressing water loss is lack of manpower and resources. Southern has had difficulty in finding and keeping quality

employees. Southern could benefit from a dedicated crew of employees devoted to leak detection but does not currently have the resources to fund a dedicated leak detection crew.

In order to reduce the amount of unaccounted for water loss, Southern must replace old water lines that are prone to leaks. Recently, Southern has replaced water lines in one of our most outdated areas of our system, Wayland to Lackey. Although this project will replace aged and inefficient water lines with newer and more efficient transmission lines, it will also increase the pressure on transmission lines downstream which may cause additional leaks. Southern anticipates finding several leaks in the Wayland area after this project is complete. This project was funded by American Mine Lands Economic Revitalization. This water line replacement project is substantially complete as of the end of the reporting period.

Southern does not feel as though the new meters have reduced unaccounted for water loss. One of the main reasons these meters have not been successful is the high number of faulty meters that we have encountered. This forces Southern to estimate many customer bills due to the meters not reading correctly and/or not having enough inventory of meters to replace meters that have been pulled to be repaired.

Southern thought that these new water meters could assist in reducing unaccounted for water loss but now feels as though the opposite may be true. Due to the high rate of faulty water meters that do not accurately reflect the amount of water passing through said meter, it is highly likely that Southern is not correctly calculating the amount of water used by customers.

This results in customers using much more water than the amount that our meters and said customer's bills reflect.

In order to reduce water loss, Southern intends to continue monitoring and removing theft from our system, finding funds to replace old faulty service lines and main lines, rehabilitation of the water plant and possibly replacing the RG3 water meters with more reliable water meters.

CONCLUSION

Southern does not feel as though any changes need to be made to the meter replacement surcharge at this time. The money generated from this surcharge is earmarked to service the debt related to the replacement of Southern's water meters as well as integrating Ten Master Meters into Southern's water infrastructure. Once the water meter loan has been satisfied, Southern feels that a decision must be made regarding whether to remove the surcharge OR use the proceeds of said surcharge to fund projects aimed at reducing unaccounted for water loss and/or the replacement of the RG3 meters with more reliable water meters.

CERTIFICATION

These responses are true and accurate to the best of preparer's knowledge, information and belief formed after reasonable inquiry.

Respectfully Submitted on May 8, 2024 by;

/s/ Steven Bailey
Steven Bailey, JD/MBA
Bailey Law Office, PSC
Counsel for Southern Water & Sewer District

181 E Court St
Prestonsburg, KY 41653
steven@baileylawofficepsc.com
Phone (606) 263-4913