



ANNUAL REPORT 2023

From The President & CEO

As one of the largest public utility providers in the nation, Knoxville Utilities Board plays a critical role in our customers' lives. Throughout every facet of our operations, our employees work together to serve our community with high-quality utility services. We recognize the diversity in our customers' needs and work hard to be mindful and meet those needs.

When considering the rollout of KUB Fiber, we started in areas where we'd already placed fiber to enhance electric reliability, but we also prioritized communities with little to no existing high-speed internet options. At the same time, we began developing a program that makes internet access free for low-income households with students, and I'm proud that KUB ConnectED was available in the first year of our fiber rollout. Fiber assistance builds on a foundation of customer support exemplified throughout our organization, including customer counselors, home efficiency upgrades, and more.

We are also always considering sustainability in our operations. I'm proud of all the progress we've made in this area, from providing Knoxville's first community solar program to planning public electric vehicle chargers. Our commitment to our customers' assistance needs and the environment are outlined in our ESG Report online.

I've always been impressed with this organization's ability to create solutions for our community, and I'm excited to see how the dedication of our employees continues to make an impact.

-Gabriel J. Bolas II, KUB President & CEO



Environmental, Social, & Governance Reporting

KUB's annual Environmental, Social, and Governance (ESG) Report provides stakeholders with an overview of sustainability progress and a look at aspirations for the future. This includes KUB's commitments to renewable energy, further adoption of alternative fuels within its fleet, and a more intentional Diversity, Equity, and Inclusion initiative. As outlined throughout the ESG Report, KUB works to improve its social impact within the company and throughout the community to ensure customer needs are at the forefront of KUB business decisions.

ESG Focus Areas



Environmental

- Renewable Energy
- Technology & Innovation
- Electric Vehicles
- Sustainable Operations & Energy Efficiency
- Environmental Stewardship



Social

- Community Involvement
- Economic Empowerment
- Addressing Energy Burden
- Diversity, Equity, & Inclusion
- Health and Safety



Governance

- Leadership & Board of Directors
- Stakeholder Engagement
- Financial & Accounting Transparency
- Business Ethics
- Risk Management & Cybersecurity

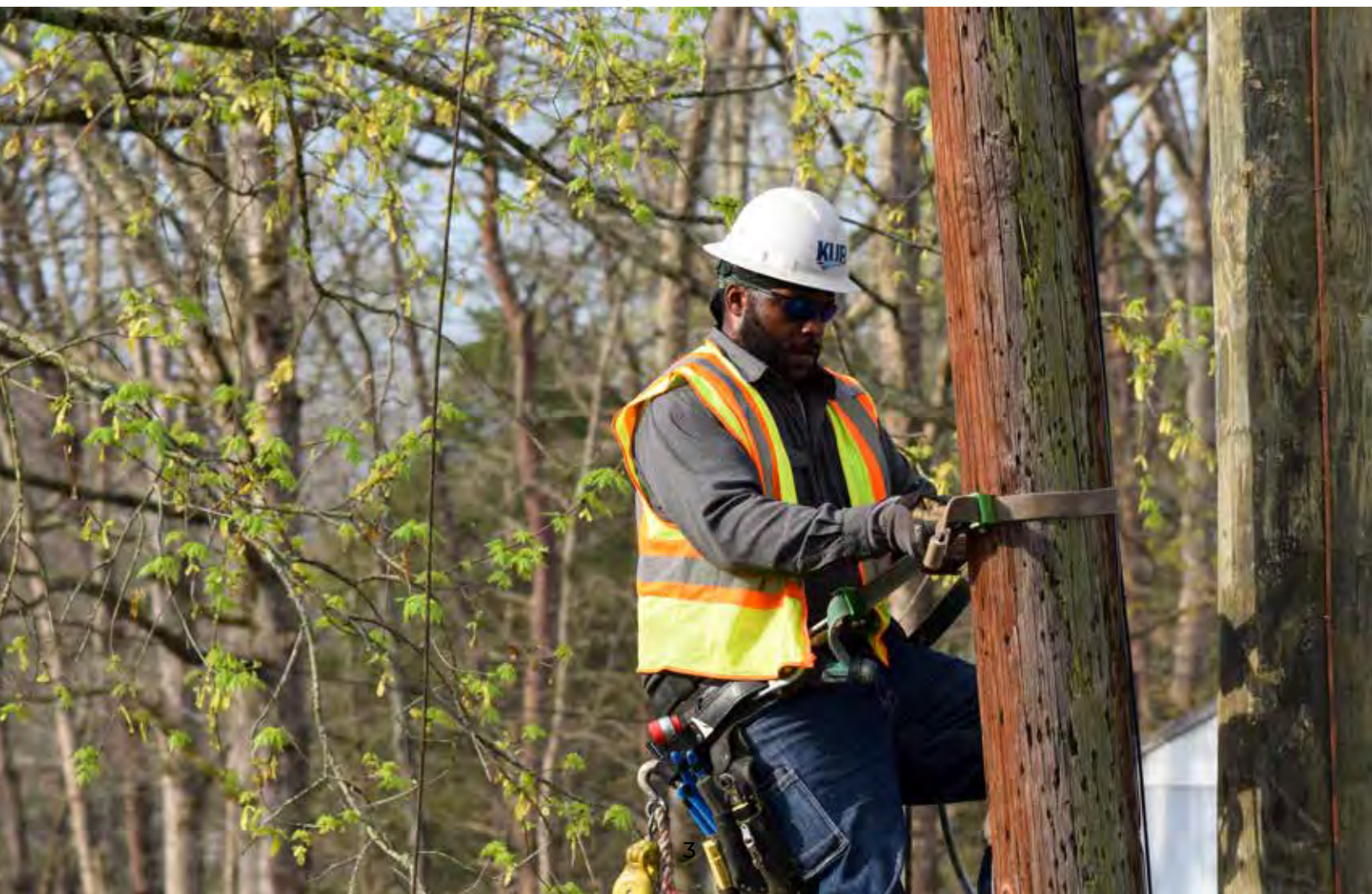
Electric Division

With more than 218,344 customers in its 688-square-mile service territory, KUB's Electric Division is its largest. KUB works to maintain and improve its electric system reliability through innovative technologies and its Century II infrastructure maintenance program.

KUB met its Fiscal Year 2023 (FY23) reliability goals, with the average customer experiencing 1.33 occurrences of power interruption and the average customer outage duration lasting 1.93 hours. Through the use of approximately 150 fault location, isolation, and service restoration (FLISR) devices, KUB has saved more than 10 million minutes of service interruption since FY18. The deployment of KUB's fiber optic network means that number will increase exponentially, as KUB plans to deploy 1,200 additional devices across the system over the next seven years.

As part of Century II, 1,135 poles, 9 miles of transmission line, and 6.89 miles of underground cable were replaced in FY23. KUB's substation modernization project is 81% complete. In FY23, construction began on KUB's 10th infeed substation, and two substations were upgraded, which includes wildlife protection equipment installation, replacement of aging assets, and control house renovations.

Additionally, KUB works to ensure reliability through proactive vegetation management. KUB trims trees and other vegetation on a five-year cycle, and in FY23, KUB invested \$11.4 million to trim along 1,058 miles of electric lines and remove 2,671 hazardous trees.



By the Numbers

218,344 customers

688-square-mile service area

5,490 miles of service lines

63 substations

5,868,613 MWh total purchased power

\$476 million purchased power cost;
74% of sales

1,328,313 kW peak day (2/20/15)

3,029,500 kVA peak capacity

12,000 kWh annual use by the typical
residential customer

\$4.19 per day for the typical residential
customer



Financials

\$31.4 million positive change in net position

\$369.8 million outstanding debt (revenue bonds)

43% debt ratio

Aa2 Moody's Bond Rating

AA- S&P's Bond Rating

Fiber Division

This was KUB's first year as a fiber internet provider, as its first KUB Fiber customer came online in July 2022. The buildout of KUB's fiber optic cable system will span across its existing electric service territory providing affordable high-speed internet to its customers – some of which previously had little or no internet availability.

In FY23, approximately 600 miles of fiber were added throughout KUB's service territory. At the end of KUB's seven-year buildout, KUB will have 5,490 miles of fiber. Each year, an average of 30,000 customers will be eligible for KUB Fiber service with all customers within KUB's existing electric service territory eligible by FY29.

KUB Fiber allows customers to opt-in for fiber internet at 1 gigabit upload and download speeds, the first service of its kind in the Knoxville area. KUB also offers faster speeds up to 10 gigabits, television packages, and telephone services.

Funding for KUB Fiber uses a balanced approach utilizing rates and debt, which includes a \$35 million loan from the Electric Division to be paid back over eight years. As of FY23, \$30 million has been loaned from the Electric Division.



By the Numbers

2,331 customers

688-square-mile service area

618 miles of fiber



Financials

\$9.2 million negative change in net position

\$29.1 million outstanding debt

(Note payable; interdivisional loan from Electric Division)

N/A debt ratio

N/A Moody's Bond Rating

N/A S&P's Bond Rating

Natural Gas Division

KUB is proud to provide its 297-square-mile natural gas service territory with a safe, reliable, and clean-burning energy source. As KUB Natural Gas continues to grow, system resiliency and safety are at the forefront of KUB's work on its natural gas system.

KUB's natural gas system is made up of 92% polyethylene pipe with plans to replace the remaining low-pressure steel pipe as part of the Century II infrastructure maintenance program. KUB's focus on system resiliency projects minimizes customer outages during planned and unplanned work.

In addition to Century II replacement projects, maintenance programs include 40,000 proactive safety surveys, 4,500 valve inspections, 1,400 steel corrosion monitoring points, and regulator station functional assessments each year.

Natural gas expansion efforts continued in FY23, as KUB added 1,309 customers and 16 miles of distribution main to its system. Through its Connect to Comfort growth initiative, KUB offers natural gas appliance rebates and water heater installation and financing options as part of the EasyConnect program. KUB's public compressed natural gas (CNG) fueling station serves KUB's fleet as well as public and commercial vehicles. As of 2022, station utilization was over 10 times what it was in 2017.



By the Numbers

108,698 customers

297-square-mile service area

2,570 miles of distribution mains

13,261,927 dekatherms total
purchased gas

\$83 million purchased gas cost;
57% of sales

169,458 dekatherms (dth) peak day
(12/23/22)

157,381 dth system capacity

600 therms annual use by the typical
residential customer

\$2.13 per day for the typical residential
customer



Financials

\$13.5 million positive change in net position
\$78.1 million outstanding debt (revenue bonds)

19% debt ratio

Aa2 Moody's Bond Rating

AA S&P's Bond Rating

Water Division

KUB serves 82,799 customers throughout its 188-square-mile service territory with high-quality water. KUB takes in over 30 million gallons of water from the Tennessee River each day and treats it at the Mark B. Whitaker (MBW) Water Treatment Plant. KUB's water lab team performs more than 100,000 tests for more than 150 contaminants at KUB's state-certified Water Quality Lab. Details about KUB's water quality can be found in the annual Water Quality Report published at www.kub.org/water.

Through the Century II infrastructure maintenance and replacement program, KUB ensures its distribution system maintains efficiency and reliability for generations to come. In FY23, 3.2 miles of galvanized pipe and 5.2 miles of cast iron/cement pipe were replaced on KUB's system. KUB also maintains 8,500 hydrants on a three-year inspection cycle and 20,000 water valves on a five-year inspection cycle. Critical valves are inspected annually.

KUB's MBW Water Treatment Plant is currently undergoing filtration upgrades as part of the Water Supply Master Plan. This construction project – the largest in KUB history – will provide 38 million gallons per day (MGD) of additional filtration capacity at MBW, increasing redundancy and resiliency.

In addition to continual system upgrades, KUB employees remain prepared at all times to respond to unexpected events. In FY23, dozens of KUB employees worked together to keep the water system stable after a 30-inch water main and a 16-inch wastewater force main broke under the Holston River. In less than one month, both mains were replaced, tested, and connected to KUB's system with no customer service interruptions.



By the Numbers

82,799 Customers

188-square-mile service area

1,412 miles of distribution mains

1 treatment plant

28 storage facilities

26 booster pump stations

62.9 million gallons rated capacity

36.9 million gallons reservoir capacity

12.7 billion gallons treated water per year

34.8 million gallons/day average flow

44,880 gallons annual use by the typical residential customer

\$0.99 per day for the typical residential customer



Financials

\$13.1 million positive change in net position

\$184.3 million outstanding debt (revenue bonds)

44% debt ratio

Aa1 Moody's Bond Rating

AAA S&P's Bond Rating



Wastewater Division

KUB takes in and treats 36 million gallons of wastewater each day from its 249-square-mile service territory. Throughout the last two decades, KUB invested \$655 million in infrastructure maintenance and improvements as part of a consent decree placed by local, state, and federal agencies.

The consent decree closed in FY22, but infrastructure maintenance continues as part of KUB's Century II program. In FY23, 9.53 miles of pipe were rehabilitated or replaced and progress was made to update two pump stations, increasing daily capacity by 8 million gallons as KUB continues to reduce sanitary sewer overflows (SSOs) on its system.

Additionally, KUB's inspection and cleaning investments continue to improve as technology advances. Video pipe inspections, manhole inspections, smoke testing, and blockage abatement allow KUB to reduce overflows through prevention.

In addition to continual system upgrades, KUB employees remain prepared at all times to respond to unexpected events. In FY23, dozens of KUB employees worked together on repairs after a 30-inch water main and a 16-inch wastewater force main broke under the Holston River. For nearly a month, wastewater was manually pumped and hauled around the clock to keep the system stable while both mains were replaced, tested, and connected to KUB's system.



By the Numbers

74,041 Customers

249-square-mile service area

1,336 miles of wastewater mains

4 treatment plants

6 storage facilities

74 lift stations

13.3 billion gallons treated water

36.33 million gallons/day average flow

66.4 million gallons rated capacity

44,880 gallons annual use by the typical residential customer

\$2.24 per day for the typical residential customer



Financials

\$20.7 million positive change in net position

\$467.3 million outstanding debt (revenue bonds)

52% debt ratio

Aa2 Moody's Bond Rating

AA+ S&P's Bond Rating

KUB Consolidated Financial Position

Operating Revenues

Electric	\$649.8 Million
Fiber	\$0.9 Million
Natural Gas	\$146.1 Million
Water	\$68 Million
Wastewater	\$107.7 Million
	\$972.5 Million

Change in Net Position (Earnings)

Electric	\$31.4 Million
Fiber	(\$9.2) Million
Natural Gas	\$13.5 Million
Water	\$13.1 Million
Wastewater	\$20.7 Million
	\$69.5 Million

Outstanding Bonds

Electric	\$369.8 Million
Fiber	---
Natural Gas	\$78.1 Million
Water	\$184.3 Million
Wastewater	\$467.3 Million
	\$1.1 Billion

Debt Service Coverage

Electric	3.11X
Fiber	---
Natural Gas	3.81X
Water	2.53X
Wastewater	1.97X

Capital Infrastructure Investment

Electric	\$108.2 Million
Fiber	---
Natural Gas	\$21.4 Million
Water	\$29 Million
Wastewater	\$31 Million
	\$189.6 Million

[View Full Audited Financials](#)

Award-Winning Service

KUB's utility systems are consistently recognized nationally by groups including the American Public Power Association, American Public Gas Association, and the National Association of Clean Water Agencies for excellent operations and exceeding standards.

KUB has also been recognized regularly for its continued commitment to sustainable operations across its systems and commitment to the community. Below are noteworthy awards KUB has recently received.

- 🏆 The Association of Metropolitan Water Agencies Sustainable Water Utility Management Award
- 🏆 The American Water Works Association Award of Excellence in Distribution System Operations
- 🏆 Diamond level American Public Power Association Reliable Public Power Provider (RP3), with a perfect 100-point score
- 🏆 American Public Gas Association System Operational Achievement Recognition Program
- 🏆 Utility of the Future Today Recognition from the National Association of Clean Water Agencies, the Water Environment Federation, the Water Environment Research Foundation, and WaterReuse
- 🏆 American Public Power Association Smart Energy Provider designation
- 🏆 AMWA Sustainable Water Utility Management Award
- 🏆 U.S. Environmental Protection Agency ENERGY STAR certification
- 🏆 TVA EnergyRight Top Performer and Renewable Leader Awards
- 🏆 Arbor Day Foundation Tree Line USA Award
- 🏆 American Public Gas Association Excellence in Environmental Sustainability Award
- 🏆 Recognition by the 100 Best Fleets in the Americas Program and NAFA Fleet Management Association Green Fleet Awards
- 🏆 Muse for All Core Value Award
- 🏆 Center for Energy Workforce Development Community Partnership Award



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