



CELEBRATING
85 YEARS OF SERVICE



ENVIRONMENTAL,
SOCIAL, & GOVERNANCE
REPORT 2024

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About KUB

Knoxville Utilities Board (KUB) is proud to provide high-quality, safe, and reliable electric, fiber, natural gas, water, and wastewater treatment services to more than 501,000 customers in Knoxville and parts of seven surrounding counties. As a provider of crucial public services, KUB's mission is to serve its customers as a trusted partner and steward, providing industry-leading services.

A Note from the President & CEO

As KUB celebrates its 85th year of service to the Knoxville area community, looking back at all we've accomplished this year feels especially meaningful. This year, we saw KUB Community Solar reach more than 90% subscribed within its first year. We continued our efforts to support our customers by delivering on our commitment to provide affordable, high-speed internet, utility assistance resources, engagement opportunities, and more. These efforts and others outlined in this report reflect our legacy of stewardship and commitment to serve our customers backed by the KUB Blueprint.

While we take pride in our accomplishments in enhancing community sustainability in recent years, we understand that our journey continues. This is why all of us at KUB remain dedicated to continuous improvement, seeking new avenues to engage with our community while delivering safe and reliable utility services. Our ESG priorities and objectives provide a clear roadmap as we strive for continual improvement in these critical areas.

Gabriel J. Bolas II, *KUB President & CEO*



KUB's Sustainability Mission is rooted in the three key areas of ESG:

Environmental

Safeguarding our communities' environmental resources and creating a greener future for generations to come

Social

Improving our social impact, both within the company and in the broader community

Governance

Maintaining a governance structure for leadership and management to drive positive change

ESG Approach

KUB's FY24 Environmental, Social, and Governance (ESG) report was designed to provide stakeholders with an overview of our sustainability progress and a look into our aspirations for the future. This report includes metrics for our Fiscal Year (FY) 2024, unless otherwise noted.

Looking Ahead: Our Aspirations

- 🎯 Advance the development of 400 MW of new-to-the-Valley renewable energy projects by 2030
- 🎯 Support community weatherization efforts to reach milestone of 4,500 homes by 2030
- 🎯 Deploy fiber broadband to provide access to 100% of KUB electric customers by 2030
- 🎯 Achieve 70% alternative fuel vehicles (AFV) in KUB's light-duty fleet by 2035



Our Progress

- ✓ **1MW of renewable energy** has been developed
- ✓ **2,903 homes** have been **weatherized**
- ✓ KUB Fiber available to **22% of electric customers**
- ✓ **52% AFV** in KUB's light-duty fleet

FY24 Sustainability Highlights

Emissions Reductions

891 Metric Tons
CO₂e

891 metric tons of CO₂e
avoided annually by renewable
generation from KUB's
Community Solar project

325 Megawatts

Secured commitments
for 325 MW of new-to-the-
Valley solar projects through
TVA's Green Invest program

107 Kilowatts

107 kilowatts of solar
installed on KUB
facility rooftops

Environmental Stewardship

5,500 Feet

Employee volunteers cleaned
up litter along more than
5,500 feet of streamline.

925 Pounds

KUB employees removed
roughly 925 pounds of trash
from stream cleanups and
river rescues.

10 Pollinator
Species

During Earth Day, KUB
volunteers planted 10 native
pollinator plant species to
create habitats.

Energy and Water Efficiency

1,273 Customers

Educated more than 1,200
community members
on energy efficiency and
weatherization resources

2,903 Homes

Surpassed milestone of
weatherizing 2,900 homes
for low-income customers
in need

\$1.3 Million

\$1.3 million invested in energy
and water efficiency programs
for weatherization, home
upgrades, financing, education,
and outreach

Community Support

\$16.6 million

Secured \$16.6 million
in assistance for customer
utility bills

4,145 Hours

Employees volunteered
4,145 hours at local nonprofit
agencies during calendar year
2023 as part of KUB's Volunteer
Time program.

52 Fiber Customers

52 KUB Fiber customers
enrolled in KUB ConnectED
student internet access
program to receive free
fiber services

Inclusion and Culture

6 Meetings

Held six Community
Advisory Panel meetings
to promote stakeholder
engagement

965 Employees

Educated 965 employees in
ways to support an inclusive and
diverse workplace

\$37,496,600

A record \$37,496,600 in
minority- and women-owned
business contracts were
awarded.



AWARD-WINNING SERVICE

American Public Gas Association System Operational Achievement Recognition (SOAR)

American Public Power Association Reliable Public Power Provider Designation

American Public Power Association Smart Energy Provider Designation

American Water Works Association Award of Excellence in Distribution System Operations

Arbor Day Foundation Tree Line USA Award

Association of Metropolitan Water Agencies Sustainable Water Utility Management Award

National Association of Clean Water Agencies Peak Performance Awards

National Association of Clean Water Agencies National Environmental Achievement Awards

Salvation Army Volunteer Group of the Year

U.S. Environmental Protection Agency (EPA) ENERGY STAR certification

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

100 Best Fleets in the Americas Program and NAFA Fleet Management Association Green Fleet Awards



Environmental



KUB has a long legacy of environmental stewardship within its operations and throughout its community. KUB understands the role it plays in ensuring customers of today and tomorrow can enjoy a cleaner, more sustainable future.



Environmental Priorities

- Advancing the **development of renewable energy** and providing customer access to **renewable energy programs**
- Operating a **clean and resilient energy grid** compatible with distributed energy resources, smart technologies, and electric vehicles (EVs)
- Paving the road to EV adoption through **partnerships** and **charging infrastructure investments**
- Ensuring **sustainable operations** that **prioritize efficiency, reduce emissions, protect our rivers, streams, and natural habitats, promote air quality, and reduce waste**
- Helping customers **conserve energy and water, save money, and support resilience and sustainability**



Advancing the Development of Renewable Energy

Supporting the development of clean energy resources has become a key part of KUB's strategy to help create a greener future for the communities it serves.

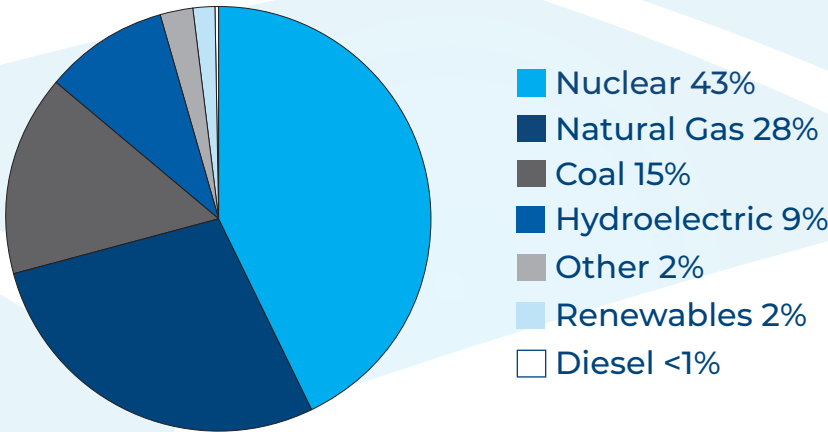
Generation Flexibility

Through TVA's Generation Flexibility program, KUB now has the ability to supply up to 5% of its electric load. The program enables local power companies to increase access to renewable energy, lower costs for customers, and promote economic development in the region.

Generation Flexibility will play a major role in supporting KUB's renewable energy goals and the local development of clean energy resources. In FY24, KUB issued a request for proposals to evaluate potential for local solar projects while also exploring opportunities for projects beyond KUB's service territory. Over the next several years, KUB anticipates executing contracts to deploy up to 82 MW of solar through its Flexibility capacity, of which 20 MW will be sourced from its Green Invest projects.

325 MW of Solar
by 2027 through TVA's Green Invest Program

KUB Electric Energy Mix 2023



Emissions Rates for Standard Service: 637.16 CO2 lbs/MWh
Source: www.kub.org/carbonreports



Green Invest

In 2020, KUB became the first of TVA's local power companies to purchase green power on behalf of its customers through TVA's Green Invest program. KUB is currently on track to bring online a total of 325 MW by 2027 with a \$3.1 million annual investment for the next 20 years. When complete, these projects will supply clean energy for approximately 14% of KUB's electric load.



Renewable Energy Solutions for Customers

As renewable energy solutions become increasingly important to businesses, local governments, and community members, KUB strives to provide solutions to meet the unique needs of its customers.

In 2023, KUB brought renewable energy to its community by launching Knoxville's first Community Solar project. KUB Community Solar provides homeowners, renters, and businesses a simple way to support local solar generation. When developing KUB Community Solar, KUB prioritized customer accessibility by setting a low-cost, monthly subscription that would allow individuals and businesses to invest in renewable energy without large upfront cost or a long-term commitment. The program, which consists of more than 2,000 shares, reached a 95% subscription level by the end of FY24. KUB anticipates further improving customer economics to a break-even cost by leveraging funds from the Inflation Reduction Act, helping eliminate customer barriers to clean energy.

KUB also partners with TVA to provide customers the opportunity to support renewable energy generation through TVA's Green Switch Match, Green Switch, and Green Flex programs. Additionally, KUB customers have access to distributed energy resources including TVA's Green Connect, Dispersed Power Production, and the sunsetting Green Power Providers programs.

In April 2024, the Environmental Protection Agency announced that the Tennessee Department of Environment and Conservation (TDEC) would be awarded over \$156 million in Solar for All funding.

KUB, along with the City of Knoxville, were instrumental partners in TDEC's application development. Tennessee's Solar for All Program will accelerate the deployment of solar infrastructure to benefit low-income households and disadvantaged communities over the next five years with Local Implementation Teams, such as KUB and the City of Knoxville, taking the lead in bringing these renewable energy solutions to their communities.



Renewable Energy by the Numbers

435 distributed energy resources interconnected in KUB's electric service territory

KUB Community Solar at **95% subscribed** in less than one year

\$156 million in upcoming **Solar for All** funding statewide



Removing Barriers to Electric Vehicle Adoption

KUB empowers electric vehicle adoption throughout the service territory by investing in community charging infrastructure and providing resources for EV drivers and fleets. KUB participates in several industry groups and teams, such as Drive Electric Tennessee, to promote EV adoption and has supported a multitude of EV initiatives this year including KUB's EV charger rebate program, TVA's Qmerit residential installation pilot, and projects for workplace and public charging.

Workplace Charging Project: EMPOWER

KUB is partnering with East Tennessee Clean Fuels and industry partners on their Equitable Mobility Powering Opportunities for Workplace Electrification Readiness (EMPOWER), Tennessee's first and only equity-focused workplace charging program. EMPOWER TN aims to help 24 workplaces add EV charging infrastructure by offering up to \$2,000 in free technical assistance.

Fast Charge Tennessee Network

KUB is installing two public fast charging stations as part of the TVA and TDEC Fast Charge Tennessee Network, which aims to power the growth of EVs across Tennessee by installing charging every 50 miles along interstates and major highways. KUB's two stations will be located in Downtown Knoxville in partnership with the City of Knoxville and in Seymour in partnership with Food City, filling key alternative fuel corridor gaps on I-75 and Route 441. The stations are expected to be complete by late 2024.



Union County Schools Electric Buses

Union County Public Schools (UCPS) introduced the first electric school buses in KUB's service territory. With support from KUB to install electric vehicle charging infrastructure and funding granted through the Environmental Protection Agency (EPA), this marks a milestone in the school system's efforts to introduce innovative technologies to serve its students. UCPS was one of 10 Tennessee school systems to be awarded an EPA Clean School Bus Rebate. Each bus holds 71 passengers and has a 135-mile range. Powered solely by electricity, the buses provide a cleaner mode of transportation for students and better air quality for students and the Union County community.



Innovating for the Utility System of the Future

The utility industry continues to undergo a transformative shift driven by growing integration of renewable energy sources, electric vehicle adoption, advancements in grid-edge technologies, and evolving consumer needs. With this shift, KUB's internal Utility Transformation Team, in collaboration with stakeholders and industry partners, is exploring innovative ways to keep its community connected while promoting a clean and resilient distribution system.

As part of KUB's Grid Modernization efforts, KUB is evaluating various opportunities to support a smarter, more responsive, and more sustainable electric grid. KUB is planning several pilot projects for the upcoming year, including a microgrid evaluation to provide reliable and resilient power to KUB's Hoskins Operations Center; Dynamic Voltage Reduction (DVR) which will allow KUB to systematically reduce electric peak demand; and bringing

fiber communications to KUB's Downtown underground network vaults for improved data visibility, system planning, and real-time insights.

Planning for Electric Vehicle Growth: Rhythmos Analytics Pilot

KUB embarked on an innovative demonstration project with Rhythmos and TVA to pilot commercial deployment of a new EV analytics platform. KUB will be the first utility system to implement Rhythmos' predictive analytics software solution to provide vital data such as EV detection, charging characterization, day-ahead forecasting, and transformer loading. These capabilities will provide powerful insight into customer needs, allowing KUB to better prepare for grid impacts and operational planning to manage EV charging loads.



Biosolids



As part of KUB's wastewater treatment process, KUB produces high-quality biosolids to keep solid waste out of landfills. KUB Biosolids are a registered fertilizer with the Tennessee Department of Agriculture and are provided free to local farmers for use on their land, which saves farmers approximately \$1 million in fertilizer costs annually. KUB's Biosolids Program has been certified with the National Biosolids Partnership since 2011 and earned the most advanced certification level, Diamond, in FY24.

Operating with Sustainability in Mind

KUB is committed to enhancing the sustainability of its operations by continuously seeking ways to improve environmental stewardship. This includes upgrading facilities, implementing retrofits, optimizing operations for greater efficiency, and introducing new initiatives that align with KUB's environmental mission.



Operational Sustainability by the Numbers

57 kW and **50 kW** rooftop solar arrays

23,737 outdoor lights converted to LEDs since FY19

190 tons of metal waste **recycling** in FY24

800 utility poles donated for public reuse since the beginning of 2023

1 LEED and **1 EnergyStar** certified building

28,437 wet tons of biosolids provided to area farmers instead of going to landfills in calendar year 2023

Facilities Energy Efficiency Improvements

LED Lighting Upgrades at remote sites and plants



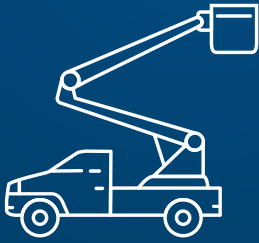
Fleet

KUB has promoted the use of alternative fuels in its fleet since 1970 when it first converted some vehicles to run on compressed natural gas (CNG). Today, KUB is proud to have a fleet powered by CNG, electric and hybrid technology, and E85 flex fuel, with these alternative fuels currently making up 52% of KUB's light duty fleet vehicles. These vehicles demonstrate KUB's commitment to reducing emissions for improved air quality and savings on fuel consumption.

KUB's fleet has maintained Tennessee Green Fleet certification from the Tennessee Clean Fuels Coalition (TCFC), in addition to meeting annual regulatory requirements of the Energy Policy Act of 1992. KUB serves on the Board of the TCFC and has been a Gold Partner since 2004. Through this partnership, KUB learns about the latest technologies and grant opportunities while we help support the alternative fuels industry. KUB paved the way for Knoxville-area businesses to introduce alternative fuel vehicles to their fleets with its public CNG fueling station, which facilitated the adoption of a new CNG fleet of trucks for the City of Knoxville and Waste Connections.

KUB continues to build upon this legacy with its Fleet Modernization Strategic Plan, established to drive further adoption of alternative fuel vehicles within its fleet and modernize the fleet through strategic replacement cycles. Through strategic replacement of traditional internal combustion engine vehicles with electric, hybrid-electric, CNG, and flex fuel technology, this effort places KUB on the path to reach its goal of 70% alternative fuels within its light duty fleet by 2035.





Fleet Modernization Strategic Plan

- Improve integrity and resiliency of KUB's vehicles through fleet modernization
- Transition from the use of fossil fuels to cleaner energy alternatives
- Reduce energy and fuel consumption by right-sizing and deploying managed idle technologies





Natural Gas Safety and Environmental Stewardship

KUB is proud to operate a safe, reliable, and efficient natural gas system to meet the needs of its customers. KUB is a leader in use of best practices and advancing technologies to minimize emissions so that customers can benefit from the important role of natural gas in a clean energy future. KUB's commitment to environmental stewardship in its gas operations is demonstrated through its active leadership in the American Public Gas Association's Environmental Task Force and as a founding member of the EPA's Methane Challenge. KUB's sustainability commitment is reflected in its work to:

- Enhance leak detection and repair programs through new technology
- Replace aging infrastructure with infrastructure that has a lower leak probability
- Educate and support its community about damage prevention
- Promote energy efficiency programs
- Incorporate best practices for emission mitigation throughout its processes
- Increase access to cleaner-burning natural gas for customers to transition from use of fuels with higher emissions

Protecting East Tennessee's Rivers and Streams

The Tennessee River serves as KUB's drinking water source with more than 35 million gallons of water treated each day at the Mark B. Whitaker Water Treatment Plant. Through KUB's robust wastewater treatment process, KUB ensures treated wastewater is returned to the river cleaner than the river itself.

KUB maintains a Water Quality Stream Monitoring Program, a Cross-Connection Control Program, wastewater management programs, and a comprehensive communications plan to inform the public on river protection measures that go above and beyond regulatory compliance. KUB's annual Water Quality Report details its efforts to ensure clean drinking water and source water protection.

KUB WATER
QUALITY REPORT

2023



KUB: 865-524-2911 (Español óptima)
www.kub.org



KUB's Water Quality Report
www.kub.org/2023kubwaterqualityreport

Connecting Customers to Savings

KUB, in collaboration with TVA EnergyRight®, provides a range of solutions for customers to connect to savings, including energy-saving tips, comprehensive energy audits, and attractive incentives. KUB has been dedicated to offering energy-efficient solutions to its customers for many years. The partnership with EnergyRight enables customers and businesses to access a diverse array of resources and incentives to support their energy conservation efforts.

Residential Services

In October 2023, TVA launched a new suite of Residential and New Homes incentives focused on promoting energy efficiency. KUB, in partnership with EnergyRight, is helping KUB customers learn about Home Energy Rebates and the savings that can be utilized when making a decision to upgrade major appliances or renovate in the home.

TVA's New Homes program also provides incentives for developers looking to make the next step in energy conservation while building a new home. Additionally, as detailed

in the social section of this report, KUB provides Energy & Water Savings Workshops free to community members.

Business & Industry Services

In partnership with KUB, TVA offers guidance and resources to help businesses reach their energy goals. Services include the vetting of contractors in a Preferred Partners

Network, energy education through industry-specific research, and financial incentives on qualifying technologies.

These tools not only help businesses save money, but they also help businesses reduce their carbon footprint to achieve their sustainability goals.

Inflation Reduction Act

As part of KUB's efforts to share energy efficiency resources with its customers, KUB also launched a public information campaign to highlight federal tax credits available through the 2022 Inflation Reduction Act (IRA), including web content, workshops, public outreach, and social media.



Connect to Savings
kub.org/save

Managing Energy Demand

As the region continues to grow with increasing energy needs, managing energy demand is a key tool to keep costs low and build resiliency. Through programs such as Time of Use and Demand Response, customers can play an important role in helping KUB provide reliable, affordable, and sustainable power.

Time of Use Rates	Customers are offered a rate that varies based on the time energy is used. Energy used during on-peak hours will have a higher rate while energy used during off-peak hours will have a lower rate.
Peak Power Partners	TVA partners with Enel X to provide incentives for commercial and industrial customers that can provide dispatchable peak load reduction for up to 40 hours per year.
PowerFlex	Designed for industrial customers who are already participating in TVA's Interruptible Power program, PowerFlex offers optionality and higher demand and energy credits.



Social

KUB is committed to having a positive social impact on the communities it serves. KUB is intentional in its effort to foster meaningful connections and enhance the lives of its employees and its customers.



Social Priorities

- Promoting **utility affordability** for KUB customers and **ensuring equitable access** to services
- **Participating and investing in the communities** KUB serves
- **Building partnerships and programs** which **promote economic empowerment and opportunity**
- Developing intentional programs and policies to **promote diversity, equity, and inclusion (DEI)**
- Prioritizing the **safety and well-being** of KUB employees and customers





Diversity, Equity, and Inclusion

Appreciating diversity, ensuring equitable practices, and creating an inclusive culture is top priority at KUB. KUB's strategic approach to Diversity, Equity, and Inclusion (DEI) includes initiatives and programming tied back to KUB's DEI pillars listed below and detailed throughout the social section of this report.

- **Community Engagement:** Connecting with the communities we serve through partnerships, volunteerism, and educational outreach with local schools, non-profits, and stakeholders
- **Customer Experience:** Providing customers with high-quality utility services alongside individualized support to meet customer needs while ensuring every interaction is professional, pleasant, and resolution-focused
- **Employee Experience:** Implementation of strategies and tools that contribute to increased job satisfaction and employee retention, while ensuring all employees have a sense of belonging, are valued, are heard, and have opportunity to grow
- **Supplier Diversity:** Providing support to Minority Business Enterprises, Women Business Enterprises, and Small Businesses, ensuring an equal opportunity to do business with KUB
- **Talent Acquisition:** Recruiting skilled and talented individuals able to contribute to the success of KUB's operations while building a diverse workforce

DEI Education

KUB continued its multi-session DEI training series in FY24 for all employees, from the CEO to frontline workers. Senior leadership members completed their sixth DEI training session, mid-level leadership completed their fifth session, and more than 900 frontline employees completed their second session. These trainings focused on topics to help foster a more inclusive workplace environment including cultural competence, generational diversity, and understanding and respecting differences. New hires have access to KUB-specific digital DEI training. KUB's DEI personnel also launched a pilot program

to conduct crew visits to increase the frequency of DEI-related dialogue for field workers.

KUB maintains a robust internal and external DEI communications plan that educates employees about and celebrates the contributions of community members from all walks of life. Employees and leadership are also provided DEI resources including an educational trip to the local Beck Cultural Exchange Center for leaders and veteran-support resources at KUB's Veterans Wellness Sessions.

Promoting Utility Equity and Affordability

KUB serves a diverse population spanning Knox and parts of seven surrounding counties with rural and urban communities. KUB facilitates a variety of programs to help improve utility affordability for its customers.

Customer Bill Payment Assistance

Several decades ago, KUB was the second utility in the nation to hire full-time social workers to assist its customers who need financial or community support to prevent service disconnection for unpaid bills. Today, KUB works with more than 200 local agencies to provide a network of support to those in need. This includes connecting KUB's customers with programs like federal LIHEAP assistance and KUB's Project Help emergency energy assistance program, which is solely funded by community member donations. KUB customers received more than \$16.6 million through these programs in calendar year 2023.

KUB Fiber Fosters Thriving Community

KUB launched its high-speed internet service, KUB Fiber, in 2021 with the goal to bring gig-speed fiber internet service to every customer in its electric service territory, including rural communities where high-speed internet was limited or non-existent. KUB entered phase two of its three-phase rollout in FY24, with KUB Fiber available to more than 60,000 customers – many of whom are located in rural areas. In addition to helping provide a solution for the digital divide, KUB's fiber deployment improves electric reliability by enhancing KUB's electric grid.

KUB launched its student internet assistance program, KUB ConnectED, in FY24, with funding provided by the City of Knoxville and Knox County. Through KUB ConnectED, income-eligible student households within Knox County can receive free KUB Fiber internet services.



Community Assistance by the Numbers

\$16.6 million in bill payment assistance

\$825,000 secured for student internet assistance through City of Knoxville and Knox County partnerships

\$264,000 in Community Care Funds for local nonprofits

60,000 customers with KUB Fiber high-speed internet availability



Community Care Fund

Since FY21, KUB has matched funding provided by TVA through its Community Care Fund to support local nonprofits providing assistance with education; diversity and inclusion; health, hunger, and housing; workforce development and training; and community enrichment. KUB matched TVA funds in FY24 to provide a total of \$264,000 for local nonprofits.



Weatherization Assistance Programs

Since 2015, KUB, with the help of community partners, has provided weatherization services to more than 2,900 homes in the KUB service area. Through programs such as Knoxville Extreme Energy Makeover (KEEM), Round It Up, and TVA Home Uplift, energy-efficient upgrades have been offered to low-income households at no cost, with the aim of reducing utility bills through root-cause solutions. Improvements such as air sealing, insulation, moisture control and ventilation make homes healthier and more comfortable. These initiatives have contributed over \$32 million towards improving the energy efficiency of low-income households, which includes KUB's ongoing investment of \$1 million per year. As a result of weatherization assistance, single-family homes have experienced an average energy use reduction of 15%.

Under the Tennessee Housing Development Agency's (THDA) Multifamily Weatherization Assistance Program, the International Center for Appropriate and Sustainable Technology (ICAST) completed its first multifamily weatherization project in KUB's service territory and the state. ICAST weatherized 80 units at the Summercrest Apartments located in North Knoxville. This project represents the first completed venture in ICAST's statewide multifamily weatherization assistance program, which aims to benefit income-eligible multifamily properties over the next four years.

Water Savers Program

KUB Water Savers aims to assist low-income residential customers in effectively managing their water and wastewater expenses, leading

to reduced utility bills through a partnership with Knoxville-Knox County Community Action Committee (CAC). Through this program, customers can benefit from repair services and efficiency improvements, such as addressing water line leaks and replacing outdated high-flow toilets with new low-flow models. There were 41 homes served by KUB's Water Savers program this year.

Uplifting the Community

TVA EnergyRight® and KUB support schools and small businesses by identifying opportunities to reduce energy costs and improve the quality of business and learning environments.

Participating schools and businesses compete to become eligible for grants for much-needed energy upgrades to improve the places of work and learning. This year,

five schools in the KUB service area participated in School Uplift: Rocky Hill Elementary, Green Magnet Academy, Dogwood Elementary, Halls Elementary and Northshore Elementary.

Sustainable Home Improvement Program (SHIP)

SHIP is a partnership between Socially Equal Energy Efficient Development (SEED) and the Solar Energy Loan Fund (SELF), an organization that provides capital to low- to moderate-income households for energy retrofits that provide pathways to solar power. KUB has committed \$30,000 towards the project alongside Knox County and the City of Knoxville which have committed to \$30,000 each. Over the next three years, SELF will be investing \$2,250,000 in capital in the Knoxville area.







Community Involvement

Community outreach is a fundamental aspect of KUB's efforts to connect with its customers. KUB offers informational presentations and demonstrations to community groups highlighting a variety of topics.

Educational and Safety Demonstrations

In partnership with TVA EnergyRight®, KUB's interactive workshops demonstrate to attendees how small changes in your home can make an impact on your utility usage and bills. Attendees receive a free kit to implement changes at home right away. When EnergyRight® launched customized workshops for kids and teens, KUB expanded its workshop availability to include these offerings as well. Kids can learn where energy comes from and how to save, while teens are empowered to play a bigger role in energy conservation.

KUB also offers power line and natural gas safety demonstrations with live lines and other interactive features that illustrate the importance of proper safety practices around utility infrastructure.



Expanding KUB's Reach Through Partnerships

KUB has connected with local nonprofits to create specialized opportunities for community groups. KUB-trained representatives from Knoxville's Socially Equal Energy Efficient Development (SEED) present savings workshops that engage some of the area's most at-risk and underserved populations. Local Girl

Scout troops can earn a KUB badge by participating in a workshop, safety presentation, or other educational demonstration.

KUB also creates STEM-related activities for local groups including the Muse Knoxville children's museum, 4H Electric Camp, and WaterFest.

Through KUB's External Engagement Team and its fiber marketing efforts, utility representatives support events throughout the year that align with KUB's mission of service to the community. This includes providing free drinking water with the H2O To Go mobile water unit, providing fiber internet information and on-the-spot fiber installations, attending fundraising events, and more.

**KUB connected with customers at
113 community events in FY24.**

Economic Empowerment and Opportunity

Career Readiness and Recruitment

KUB has invested in the Knoxville area's future leaders for nearly three decades through its TeenWork career readiness program. KUB TeenWork provides high school juniors with resources and education to help them succeed after high school, whether they enter the workforce or begin college. Along with educational sessions, TeenWorkers interview for placement in a paid summer internship at KUB or a local business partner to gain hands-on experience in a workplace setting. KUB expanded TeenWork in FY24 to include South Doyle High School along with Austin-East, Central, and Fulton High Schools.

To increase its efforts in creating pathways to employment for community members with little-to-no experience, KUB launched its Utility Apprenticeship program in FY23 and hired its second group of apprentices in FY24. The apprenticeship program offers participants a full-time position with benefits while gaining on-the-job training and experience before advancing to a Level I Technician with KUB. This program builds on the success of KUB's longstanding Lineworker Apprentice Program.

KUB has already seen the positive impact of apprenticeships. Not only do apprenticeships create pathways to long-term careers, but they also enhance the diversity of KUB's workforce. In calendar year 2023, KUB found that 35% of lineworker apprentices are from underrepresented groups, including 12% who were female. KUB found that 50% of utility apprentices were hired from underrepresented groups.

KUB has continued to develop new strategies to reach potential job applicants in the community. KUB held its second annual Community Expo and Job Fair in FY24 and hosted a DEI Pipeline Partner event to connect workforce programs throughout KUB's service territory.



Supporting Regional Growth

KUB works closely with the Knoxville Chamber and members of leadership in the surrounding counties to support economic growth. KUB plays a major role in attracting businesses to the East Tennessee area and works one-on-one with businesses to ensure their utility needs are met. KUB is able to provide safe and reliable energy, high-quality water services, and lightning-fast fiber internet – all of which are necessities for a thriving economic environment.

546 KUB TeenWorkers have graduated from the program since 1995. 13 TeenWork alumni are employed at KUB full time.

Procurement/Supplier Diversity

KUB's Supplier Diversity Program was designed to ensure that all business opportunities are provided in a non-discriminatory and inclusive manner. As part of the Supplier Diversity Program, KUB employs a Minority Business Enterprise/Women Business Enterprise (MBE/WBE) Program Consultant to serve as a liaison for MBEs, WBEs, and small businesses.

KUB employees attend local expos and host events to connect with local business owners, assist them through the pre-qualification process, and provide insight into the bidding process – all of which can help local business owners succeed in doing business with KUB. In FY24, KUB awarded a record \$39,446,172 million in MBE/WBE contracts, making up 10.7% of total KUB purchasing.



The Employee Experience

KUB works to recruit and retain top talent by fostering an inclusive environment where every employee feels valued and is given opportunities for growth. A positive employee experience is the first step to a good customer experience.

Workforce Wellness & Safety

KUB promotes a culture of safety and wellness in all facets of its operations. KUB's safety programs equip all employees – from leaders to frontline workers – with the skills to communicate about and adhere to safety regulations and best practices. KUB's wellness program offers employees access to a contracted nurse, a registered dietician, and an industrial athletic trainer for individualized wellness needs. Employees also take advantage of KUB's employee assistance program, which offers free mental health counseling for employees and their dependents.

Total Rewards Philosophy

KUB focuses on offering a competitive total rewards package to employees to recruit and retain. KUB fosters a culture of fairness, transparency, and excellence in all aspects of its compensation practices. KUB's compensation principles are guided by equity, competitive compensation, performance-based rewards, transparent communication, and ethical standards. KUB benefits, which start from the first day of employment, include:

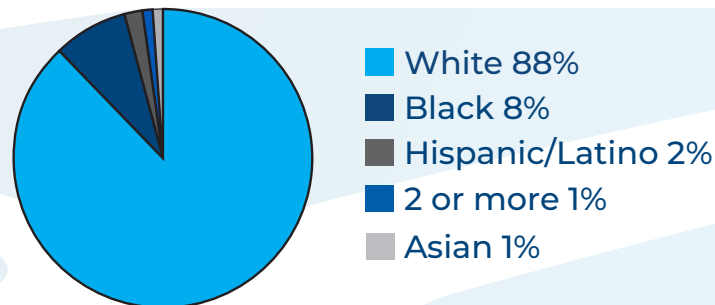
- Generous health benefits with low premiums and deductibles. 94% of employees enrolled.
- 401(k) contributions and matches. \$3,909,398 million in 401(k) matches and non-elective contributions.
- Free financial advising. 284 financial advising appointments and webinars completed.
- Educational assistance. \$173,621 in educational assistance given.



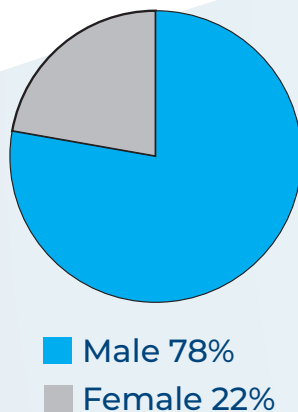
Employee Demographics

KUB uses its employee demographic analysis to understand its diverse representation across the organization and to inform efforts to ensure that everyone, regardless of their background, circumstances, or identity, has fair access to employment and advancement opportunities. Below is the demographic breakdown of full-time employees at the end of FY24.

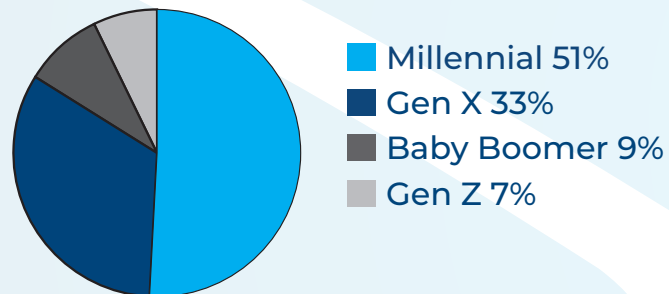
Race/Ethnicity



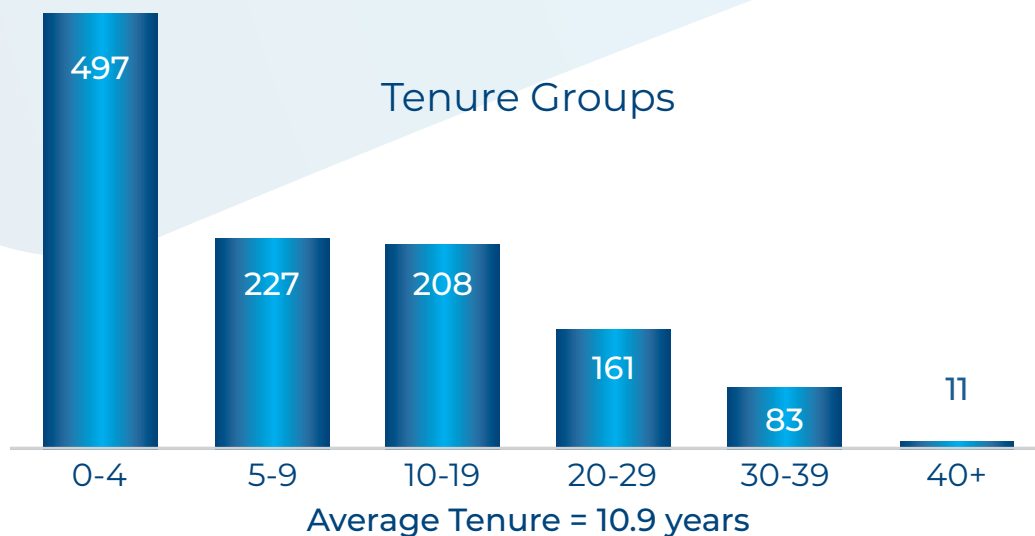
Gender



Generation



Tenure Groups



Employee Efforts

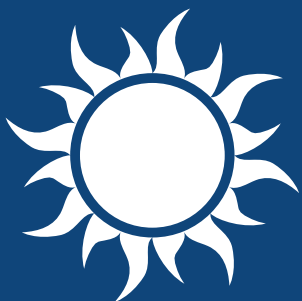
KUB employees give back to the community in various ways throughout the year. The KUB Employee Association and KUB Cares employee community service group organize fundraisers for KUB retirees in need, as well as nonprofits throughout KUB's service territory. KUB Cares also organizes volunteer fairs and weeks of service during which employees learn about nonprofits and volunteer their time through KUB's Volunteer Time program. KUB's commitment to environmental stewardship is incorporated throughout many employee events, as the Environmental Employee Engagement Team collaborates with other employee groups to identify ways to support the environment and the community.

KUB's Spring Week of Service included an Earth Day volunteer opportunity through which KUB employee volunteers constructed, prepared, and filled two raised garden beds. Ten native pollinator plant species were planted to attract pollinating insects and animals. The gardens were placed within the

fence of KUB's Community Solar Array to provide habitats and promote biodiversity.

KUB has also supported the United Way of Greater Knoxville for decades and organizes an employee-led fundraising campaign each year. During the campaign, all donations are raised by employees via payroll deductions, purchasing tickets to fundraising events, and participation in fundraising activities, like this year's farmer's market featuring homegrown and handmade items. In total, the 2023 United Way campaign raised \$191,000.

KUB partners with the City of Knoxville to support the Adopt-A-Stream program for a section of Third Creek that runs through KUB's Hoskins Operations Center campus. KUB also participates in Ijams Nature Center's River Rescue Program at its Mark B Whitaker Water Treatment and Fourth Creek Wastewater Treatment plants. Employees participate in multiple clean-ups per year to keep KUB campuses clean and protect Tennessee's waterways and streams.



Employee Efforts by the Numbers

4,145 hours volunteered in 2023

\$191,000 raised for United Way in 2023

\$2.3 million donated to United Way since 2013



Governance

KUB's success relies on a strong governance framework. Whether it be through maintaining affordability or ensuring the integrity of KUB's utility systems, ethics, transparency, and accountability are at the heart of every business decision.



Governance Priorities

- Ensuring **community needs** are at the forefront of KUB business decisions
- Maintaining a **financial balance** between KUB utility infrastructure operations and **commitment to sustainability** and the community
- **Operating ethically** as a provider of crucial public services
- Ensuring the **integrity and reliability** of KUB utility systems
- Cultivating a **skilled and capable workforce** through industry engagement, employee education, and leadership development



Leadership and Board of Commissioners

KUB was created by an amendment to the Knoxville City Charter in 1939. KUB is governed by seven commissioners who are appointed by the Mayor of Knoxville and confirmed by City Council. The Board of Commissioners appoints a President & CEO, who in turn appoints other officers. KUB operates under the provisions of the City Charter, KUB's by-laws and rules and regulations for each operating system, as well as an Ethics Policy establishing standards of conduct for KUB commissioners, officers, and employees.



Adrienne
Simpson-
Brown
Chair



Ron
Feinbaum
Vice-Chair



Claudia
Caballero



Cynthia
Gibson



Kathy
Hamilton



Celeste
Herbert



Dr. Craig
Pickett Jr.

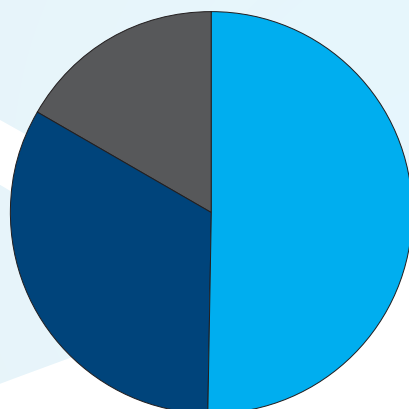
Professional Experience

Community Service
Non-profit Leadership
Justice and Legal System
Workforce Development
Diversity and Inclusion

Business Administration
Communications & Marketing
Financial Management
Education
Sustainability

Board Diversity & Experience

43% of KUB Board Members are people of color
71% of KUB Board Members are women



■ White 57%
■ Black 29%
■ Hispanic 14%

Civic Involvement in Decision Making

KUB collaborates with a wide variety of stakeholders, including customers, regulators, community service organizations, educational institutions, government partners, and others.

KUB's Community Advisory Panel was established in 2020 to enhance the KUB Board of Commissioners' ability to incorporate community feedback into its decision-making process. The panel's members represent a diversity of viewpoints, experience, and expertise to ensure that the KUB Board is aware of community and stakeholder perspectives. In addition, the panel assists in communicating information back to the groups they represent, helping the larger community to grow in its understanding of issues faced by KUB and other utilities and raising awareness of resources and programs available for KUB customers.

Community Advisory Panel members include:

- Representatives of low-income communities
- Environmental protection advocates
- Representatives of neighborhoods served by KUB
- City of Knoxville representatives
- Representatives of the business community

Annual Sustainability Workshop

KUB's sustainability efforts span across many areas of the organization. Keeping initiatives progressing in alignment requires frequent communication and collaboration between work groups and leadership. KUB's Senior Staff participate in annual ESG workshops to identify targets and resources necessary for furthering KUB's sustainability mission.



Financial Balance

KUB's financial strategy is a proactive, balanced approach to manage costs and rates, support customer growth, and use debt responsibly. KUB's long-range plan supports the Century II program, which ensures sustainable lifecycle replacement for each utility system with steady investment and an equitable sharing of the costs for service between today's customers and future generations. The long-range plan allows for funding of programs that support KUB's sustainability and community-focused goals.

Inflation Response Plan

KUB maintained its balanced funding approach throughout the COVID-19 pandemic and the inflationary impacts that followed it. To assist customers during the pandemic, KUB eliminated three planned rate increases in the water and wastewater divisions and decreased a planned water rate increase in FY21 and FY22.

In 2023, KUB developed an inflation response planning team to analyze the impact of inflation and the rate increase decisions and develop a plan to address them. Presented in 2024, KUB's most recent long-range plan and FY25 budget are the result of a year of careful and strategic planning. Inflation costs and a need to increase Century II efforts totaled an additional \$473 million over FY23-FY30. To account for this increased cost, rate increases were adopted for the electric, natural gas, water, and wastewater divisions.

Grants

KUB recognizes the opportunity in the current landscape of federal and state funding programs

that has been brought to life by recent legislation, much of which supports KUB's environmental and social goals. KUB's Grants Team scouts and assesses which programs—including both grants and tax credits—can best help KUB accomplish its mission. In FY24, KUB was a part of more than \$153 million in funding applications and is actively working multiple awarded contracts.

One such example of this has been the team's instrumental role in assessing opportunities under the 2022 Inflation Reduction Act (IRA).

As of FY24, KUB's Grants Team has worked closely with the American Public Power Association (APPA) to provide input on the IRS's Direct Pay filing process for tax-exempt entities. KUB anticipates receiving approximately \$545,000 in reimbursements for solar and EV

projects with this year's return. Under the federal American Rescue Plan, KUB was awarded a \$25.5 million grant through the City of Knoxville and Knox County governments for its Mark B. Whitaker Water Treatment Plant upgrade project.

Additionally, KUB worked to secure more than \$15 million in grants from the State of Tennessee to expedite the rollout of KUB Fiber to underserved and unserved rural Grainger, Union, Sevier, and Jefferson counties within its service territory. In FY24, KUB Fiber was available in all of Grainger County and 70% of Union County with construction planned in Sevier and Jefferson counties.





KUB Culture

KUB's corporate Blueprint reflects the longstanding vision, mission, and values at KUB. As stated in KUB's Blueprint, KUB's vision is to create connections and enhance the quality of life for its customers and employees. As customer needs and interests continue to evolve and technologies change at a rapid pace, KUB's leadership team maintains a long-term view to prepare for the future and continue providing industry-leading utility services for our customers.

KUB President & CEO Gabriel J. Bolas II connects with employees quarterly at a "Let's Connect" town hall meeting. In these meetings, employees hear from Bolas about the latest KUB news, stand-out employee efforts, and other initiatives that support the KUB Blueprint.

Integrity and Reliability

KUB is committed to ensuring the reliability and resiliency of its services through various strategic methods. KUB's operations are comprehensive and include plant, distribution, and equipment assets in numerous locations as well as various network and enterprise information technology (IT) systems to manage KUB data and assets.

Emergency Planning and Disaster Recovery

KUB maintains plans for emergency situations and disaster recovery to ensure ongoing operations in any scenario. KUB's emergency preparedness efforts include training, community outreach, first responder coordination, mutual aid arrangements, emergency resources, and redundancy and backup measures.

Integrity Management and Cybersecurity

KUB implements both regulatory and non-regulatory integrity management and cybersecurity programs for areas of higher vulnerability, including its enterprise IT systems. These programs utilize threat identification, risk analysis, strategic planning, mitigation actions, and performance measures to promote the integrity of KUB's crucial assets.

Century II

Through KUB's Century II infrastructure maintenance and replacement program, KUB ensures its systems are equipped with updated technology and infrastructure. Investment in Century II has proven to be a critical element of KUB's commitment to safe and reliable utility services. Since the program began in 2007:

- Electric reliability has improved by 33%.
- Sanitary sewer overflows in the wastewater system have decreased by 80%.
- Water main breaks have reduced by 60%.
- Metal natural gas distribution mains have been reduced by 50%.

Through its Vegetation Management Program, KUB manages trees and vegetation for more than 5,000 miles of electric lines to ensure electric reliability. As a participating member of the Arbor Day Foundation's Tree Line USA program since 2001, KUB follows best practices in utility arboriculture through quality tree care, annual worker training, tree planting, and public education.

A Skilled and Capable Workforce

Through active participation in a variety of industry and professional groups, KUB staff stay up to speed on the latest best practices, program opportunities, technology advancements, and regulatory impacts. This continuous learning allows us to implement effective and innovative solutions to enhance its operations and services for our customers.

Examples of industry organizations and professional groups KUB is engaged in include:

- American Public Gas Association
 - American Public Power Association
 - American Water Works Association
 - Drive Electric Tennessee
 - East TN Clean Fuels Coalition
- National Association of Clean Water Agencies
 - TVA Connected Communities Steering Committee
 - TVA Regional Grid Transformation
 - Water Quality Forum



Workforce Development/Education

KUB maintains a robust employee learning and development program, which provides employees with opportunities to learn more about the company and thrive in their careers at KUB. All employees have the chance to participate in KUB’s Business Education Series (BES), which includes in-depth educational courses about various facets of the organization and how it operates. KUB also offers a variety of technical skills and leadership development courses teaching skills including professional writing, public speaking, leadership, and more.

Performance Data

This section shares information for key indicators that reflect KUB's sustainability progress. For Organizational Metrics monitored by the KUB Board's Audit and Finance Committee, targets and achievement statuses are indicated. Program year refers to KUB's Fiscal Year (FY), which runs July 1 through June 30, unless otherwise noted.

PTD = Program to Date

Organizational Metrics: ■ = Target met or exceeded ■ = Target not met

Electric Power Energy Mix

Metric	Unit	CY 2022	CY 2023
Average Scope 2 Emissions Rate	CO2 lbs/MWh	671.11	637.16

Renewable Energy Programs

Metric	Unit	2023	2024	2025 Target
Community Solar subscription rate ¹	%	87%	95%	100%
Green Switch Match participation	participants	294	273	
Green Switch participation	participants	1,543	1,487	
Green Flex participation	participants	2	2	
Renewable Energy Capacity developed*	MW		1	400MW by 2030
Generation Flexibility Volume Contracted	%		0%	20%

Time of Use

Metric	Unit	2023	2024
Time of Use Rates Residential participation	participants	58	71
Time of Use Rates Commercial participation	participants	328	341

Electric Vehicle Programs

Metric	Unit	2023	2024
Rebates awarded (PTD)	rebates	454	537
Rebate funds contributed (PTD)	\$	\$177,639	\$209,897

Biosolids

Metric	Unit	2023	2024
Biosolids produced	wet tons	27,459	28,437
Exceeding Vector Requirement	%	45%	53%
Farms permitted with TDEC	farms	53	47
Acres permitted	acres	4,333	3,687

Fleet

Metric	Unit	2023	2024
AFV fleet vehicle percentage (light duty)*	%	42%	52%
Miles driven	miles	3,810,111	4,151,558
Fleet carbon efficiency	grams of CO2e/mi	1,346	1,222

Weatherization and Efficiency Programs

Metric	Unit	2023	2024	2030 Target
Energy Efficiency Education	individuals	1,900	1,273	
Weatherization Program (PTD) ²	homes served	2,638	2,903	4,500
Weatherization funds committed (PTD)	\$	\$31,000,000	\$32,451,618	
Water Savers Program (PTD)	homes served	108	148	
Water Savers funds committed (PTD)	\$	\$202,318	\$402,317	

Customer Assistance Programs

Metric	Unit	2023	2024
Project Help assistance (PTD)	\$	\$77,088	\$143,240
Project Help assistance (PTD)	customers assisted	168	229
Utility Bill Support Program (PTD) ³	\$	\$4,948,464	\$51,400
Utility Bill Support Program (PTD)	customers assisted	6,279	63
Local & federal agency financial assistance processed	Cumulative - calendar year		\$1,334,0776
ConnectED internet assistance	Participants		52

Community Outreach

Metric	Unit	2023	2024
Educational appearances	appearances	109	113

Charitable Efforts

Metric	Unit	CY 2022	CY 2023
United Way funds raised	\$	\$208,000	\$191,000
United Way Campaign volunteers	employees	143	94
United Way Campaign volunteer hours	hours	582.5	313.5
KUB Cares employee volunteer hours	hours	2,821	4,145
Spring Week of Service volunteers	hours		109
Spring Week of Service volunteer hours	hours		521.5

¹Community Solar Organizational Metric

a. FY23: 50% of the 2,115 shares to be subscribed

b. FY24: 70% of the 2,115 shares to be subscribed

c. FY25: 100% of the 2,115 shares to be subscribed

*Indicates an ESG Long-term goal, as detailed at the beginning of this report.

²Weatherization Organizational Metric

a. FY24: 250 homes served

b. FY25: 250 homes served

³This program was a result of COVID-19 relief funding that KUB used for customer assistance. This funding was exhausted September 2023.

PTD = Program to Date

Organizational Metrics: ■ = Target met or exceeded ■ = Target not met

TeenWork Program

Metric	Unit	CY 2023	CY 2024
Program graduates (PTD)	graduates	513	546
Employed full time at KUB	employees	11	13

Diversity, Equity, and Inclusion

Metric	Unit	2023	2024
MBE/WBE contracts awarded	\$	\$32,800,000	\$39,446,172
Employees trained in DEI ⁴	employees	1,100	965

Safety and Wellness

Metric	Unit	2023	2024	2025 Target
Serious preventable injuries ⁵	injuries	0	0	0
Employee Assistance Program utilization	%	8.20%	6.90%	

Compensation and Benefits

Metric	Unit	2023	2024
Enrolled in KUB medical insurance	% employees	95%	94%
Financial advising sessions completed	sessions	577	284
401(k) employer contributions made	\$	\$3,794,561	\$3,909,398
Educational assistance given	\$	\$84,000	\$173,621

Learning and Development

Metric	Unit	2023	2024
Participants in Business Education Series	employees	243	263
Individuals completed career growth classes	employees	394	440
Leaders completed HR Essentials series	employees	30	39

Community Advisory Panel

Metric	Unit	2023	2024
Meetings Held	meetings	6	6

⁴ DEI Organizational Metric

- a. FY23: Implementation of strategies to foster a more diverse, equitable, and inclusive work environment for KUB employees.
- b. FY24: Conduct phase 2 of DEI training for supervisors/appraisers and all frontline staff.

⁵ Safety Organizational Metric

- a. FY22: Not exceed 2 serious, preventable safety injuries
- b. FY23: Not exceed 1 serious, preventable safety injuries
- c. FY24: No serious, preventable safety injuries.
- d. FY25: No serious, preventable safety injuries.

Change in Net Position

Metric	Unit	2023	2024
Electric	\$	\$31,420,430	\$47,400,106
Fiber	\$	(\$9,242,475)	(\$8,082,812)
Natural Gas	\$	\$13,520,514	\$16,361,897
Water	\$	\$13,110,518	\$16,311,603
Wastewater	\$	\$20,723,282	\$25,419,704

Debt Service Coverage

Metric	Unit	2023	2024	2025 Target
Electric	ratio	3.11	3.18	3.00 or greater
Fiber	ratio	---	---	
Natural Gas	ratio	3.81	3.91	3.00 or greater
Water	ratio	2.53	2.46	2.00 or greater
Wastewater	ratio	1.96	2.02	1.50 or greater

Bond Ratings

Metric	Unit	2023		2024	
		S&P	Moody's	S&P	Moody's
Electric	rating	AA-	Aa2	AA-	Aa2
Fiber	rating	---	---	---	---
Natural Gas	rating	AA	Aa2	AA	Aa2
Water	rating	AAA	Aa1	AAA	Aa1
Wastewater	rating	AA+	Aa2	AA+	Aa2

Metric	Unit	2023	2024
Moody's ESG Credit Impact Score	Rating	CIS-2 (Neutral-to-Low)	Coming soon



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