



September 15, 2022

New EVC Rate Option

Resolution 1463 – Second and Final Reading



New EVC Rate

- Energy charges now vary (on-peak and off-peak rates)
- Facilitates transition to GSA-TOU rate
- Removes certain charges, typically associated with larger loads
- No change in KUB margin

Resolution 1463 – Second Reading

- Authorizes amendment of rate schedules of Electric Division to provide for new EVC rate (replaces existing EVC rate)
- Amends Purchased Power Adjustment to reflect new EVC rate
- Effective October 1, 2022

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Long-term Natural Gas Supply Contract



KUB Natural Gas Purchasing Practices

- Resolution 1387 provides framework
- Diversify geography, supply, and time
- Most gas bought from large producers or marketers
 - Year-round
 - Winter or summer only
 - Monthly
 - Daily
- Duration
 - Most contracts are from one to five years
 - Board authority required for >six years
- KUB has one pre-pay supply contract currently

What is Pre-Pay Gas?

- Long-term, year-round gas purchase commitment
- Very common practice for non-profit local distribution companies (LDCs)
- Provides discount on purchases
- Only eligible to qualified users
- Relies on favorable interest rate environment
 - Taxable and tax-exempt bonds spread
 - Window of opportunity can be short

Potential \$10M Savings

- Discount to gas index minus ~\$0.33
 - \$338,000 annual savings on 2,800 Dth/d
 - Potential \$10,118,000 savings over term
 - Repricing may occur after initial period concludes
- 2,800 Dth/d (10% supply)
- Total savings for pre-pay transactions \$20M
- All savings flow through to customers

Resolution 1464

- Authorizes KUB to sign contract with Tennergy
 - Up to 32-year natural gas supply contract
 - Potential savings of \$0.33 per Dth for initial period of approximately five to seven years
- Authority to sign contract expires August 31, 2023

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Environmental Stewardship Updates



Community Solar Coming Soon

Construction Update

Panel installation now complete

Interest List

Over 470 submissions

Program Launch

Winter of 2022/2023

Communications Plan

Billboard, digital ads, news releases, community celebration



KUB Supports Home Energy Efficiency



2,176

Homes weatherized since 2015



\$28.5 Million

Committed to energy efficiency through FY23



\$2 Million

Anticipated ongoing annual commitment



15%

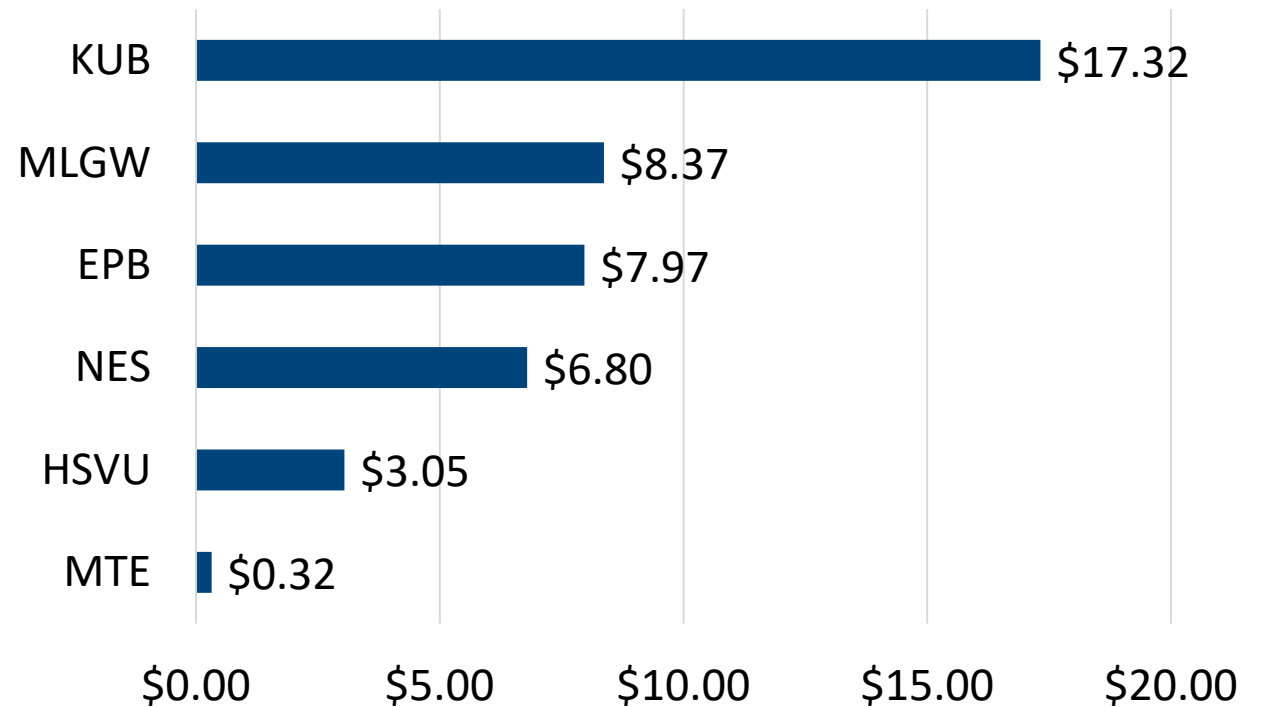
Average electric savings

KUB Weatherization Funding

KUB Weatherization Program Funding Sources

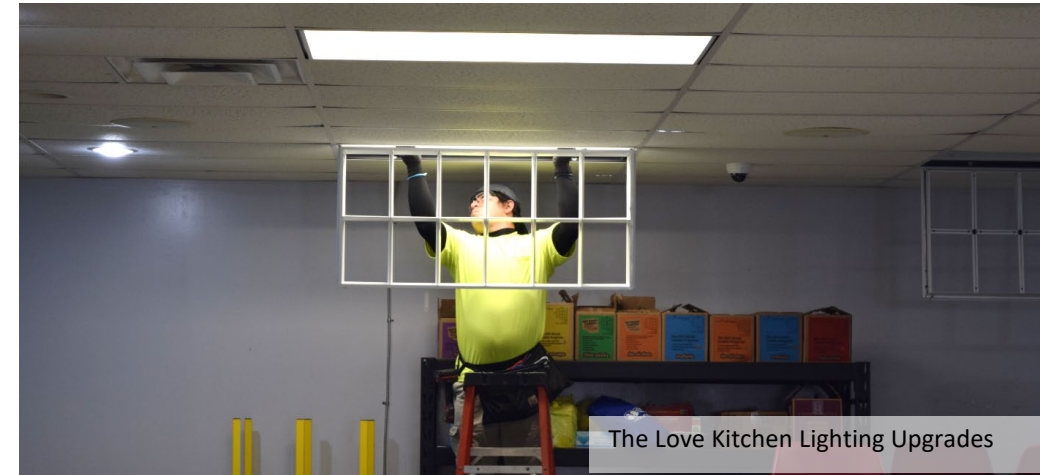
- KUB annual investments
- Customer Round It Up contributions
- TVA Home Uplift match funds
- Grant funds (TDEC)

Total Weatherization Funding Per Customer (FY21)



Community Centered Growth Pilot

- TVA pilot program to provide energy upgrades for small businesses in disadvantaged communities
 - Controls & lighting
 - Security lighting
 - HVAC
 - Kitchen upgrades
- KUB recruited 11 businesses in the East Knoxville community
- TVA has invested more than \$725,000 in improvements

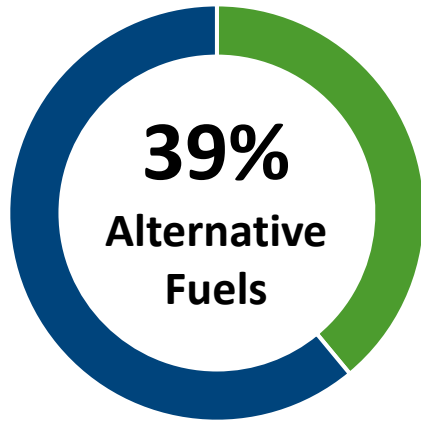


KUB 2022 Participants

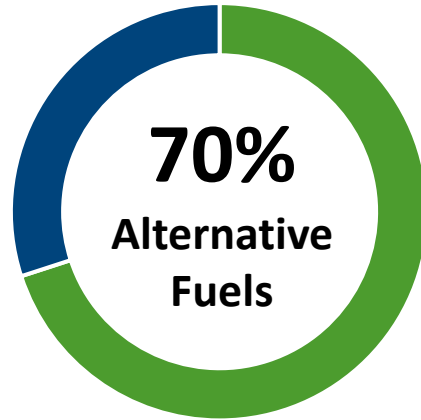
Bates Barber and Beauty Salon
Time Out Deli and Market
Keenan Grimes Community Outreach Center
The Love Kitchen, Inc.
Nana's House Learning Center
Olive Street Soulful Market & Deli
B&B Lawn Services, Inc.
Petree's Flowers
CONNECT Ministries
New Directions Health Care
Crutcher Memorial Youth Enrichment Center

Fleet Modernization Plan

FY22 Light-duty
Fleet Vehicles



FY30 Light-duty
Fleet Goal



■ Alternative Fuel Vehicles ■ Traditional Fuel Vehicles

Improving Resiliency

Establish replacement plans and rotation cycles

Reducing Emissions

Transition to alternative fuel sources such as electric, compressed natural gas, and flex-fuel

Increasing Efficiency

Reduce fuel consumption by right-sizing vehicles and managed idle technologies

TVA & TDEC Fast Charge Tennessee Network

TVA and TDEC are partnering with Local Power Companies to install EV fast charging stations every 50 miles along major travel corridors

- Eliminates range anxiety
- LPCs will install, own, and operate
- TVA and TDEC provide 80% funding
- Approximately 70 projects submitted



Fast Charger Ribbon Cutting in Martin, TN on August 30

KUB Electric Vehicle Fast Charger Projects

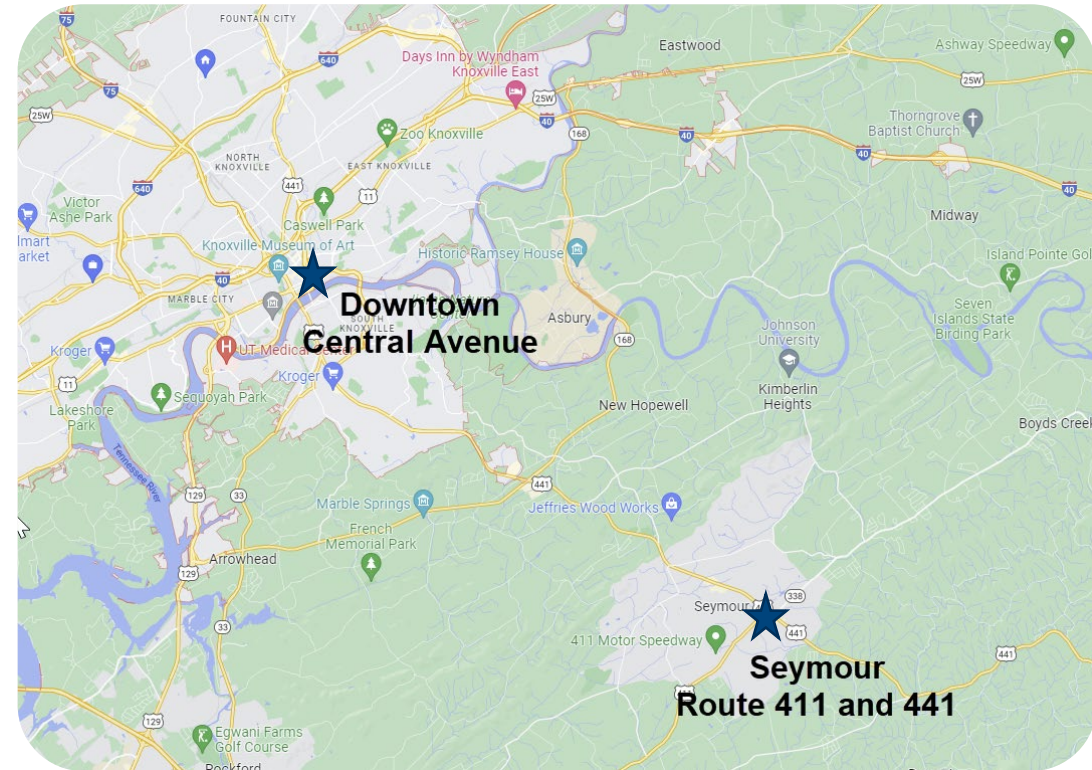
Downtown Knoxville

- Street Parking at Central Avenue at State Street
- City of Knoxville partnering to fund project

Seymour Route 411 and 441

- Site host discussions underway

KUB Project Locations



APGA Excellence in Environmental Sustainability

- Enhanced leak detection and repair programs and infrastructure replacement
- Third-party damage prevention
- Energy efficiency programs
- Greenhouse gas reporting
- Methane reduction technologies and best practices
- EPA Methane Challenge participation
- Evaluating low-carbon energy sources



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Water System Update



In the News

February 2021



Southern exposure: Cold wreaks havoc on aging waterworks

By MELINDA DESLATTE and LEAH WILLINGHAM February 25, 2021

In Shreveport, where about 200,000 people were being told to boil their water, Mayor Adrian Perkins pointed to “old, aging infrastructure, just like most American cities.”

...at least 7 million Texans were told to boil their water

Mayor Chokwe Antar Lumumba (Jackson, MS) said close to \$2 billion is required to modernize its water system...Monday was the first time in a week that residents could line up for water outside of Madonna Manor, a 13-floor apartment complex for seniors and people with disabilities. People brought laundry pails, bowls, buckets and wastebaskets.

September 2022

yahoo!news

Joy Addison

Thu, September 8, 2022 at 6:57 AM

People in Jackson, Mississippi, are going on week two without one basic human necessity: clean drinking water.

"We've been on a boiled water notice for six weeks"

Clarion Ledger

Part of the USA TODAY Network

Wicker Perlis, Mississippi Clarion Ledger
Published 9:02 pm CT, September 6, 2022

"...its not a matter of if these systems will fail again but when these systems will fail again if we don't have permanent fixes in place. Our stopgap measures will not be sufficient. There are more repairs taking place on a permanent level than has happened before, but there is still a significant road ahead."

– Jackson, MS Mayor Chokwe Antar Lumumba

2021 ASCE Infrastructure Report Card Reveals National Challenges

American Society of Civil Engineers – National Scores



Century II Puts KUB Ahead of the Curve

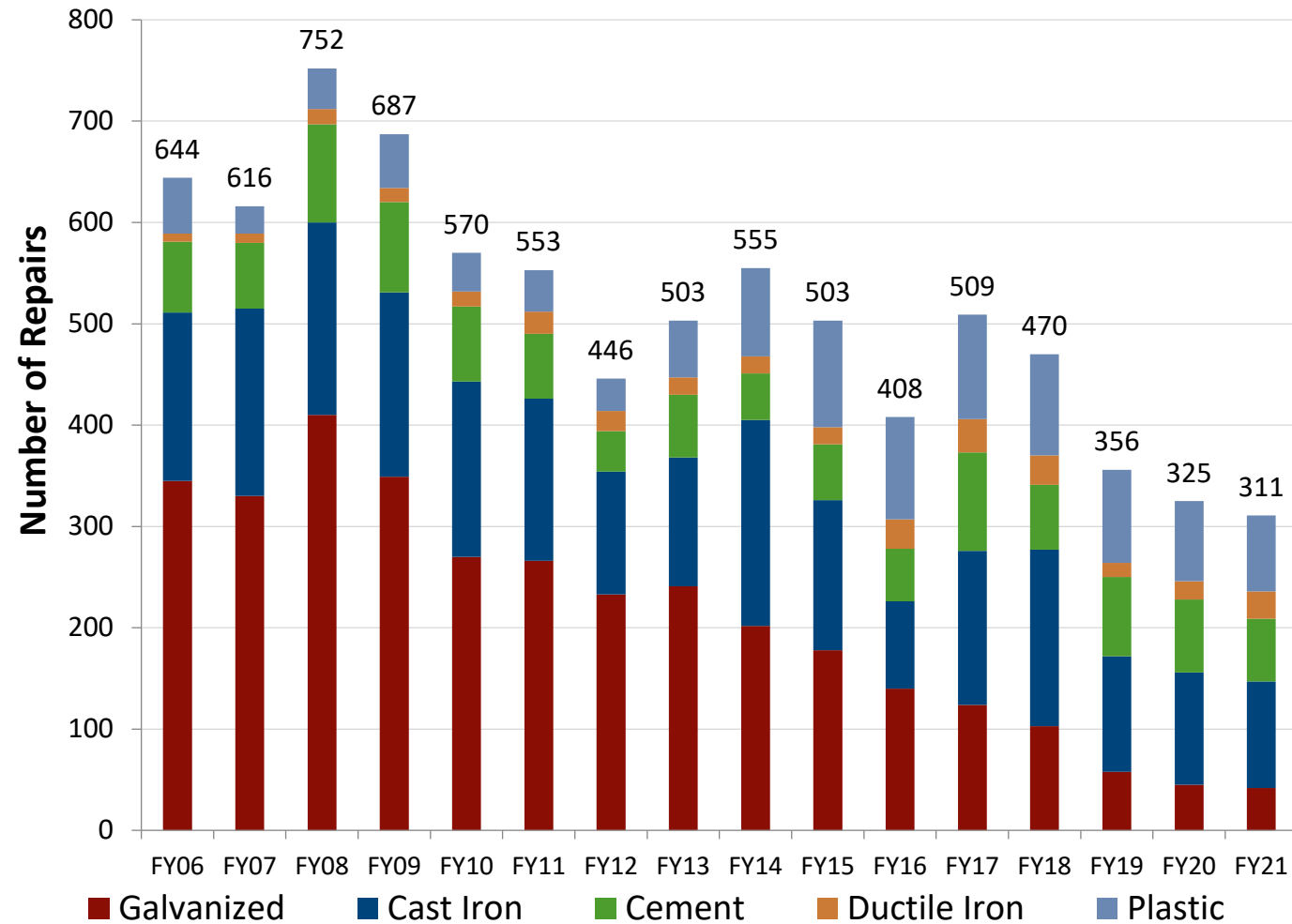
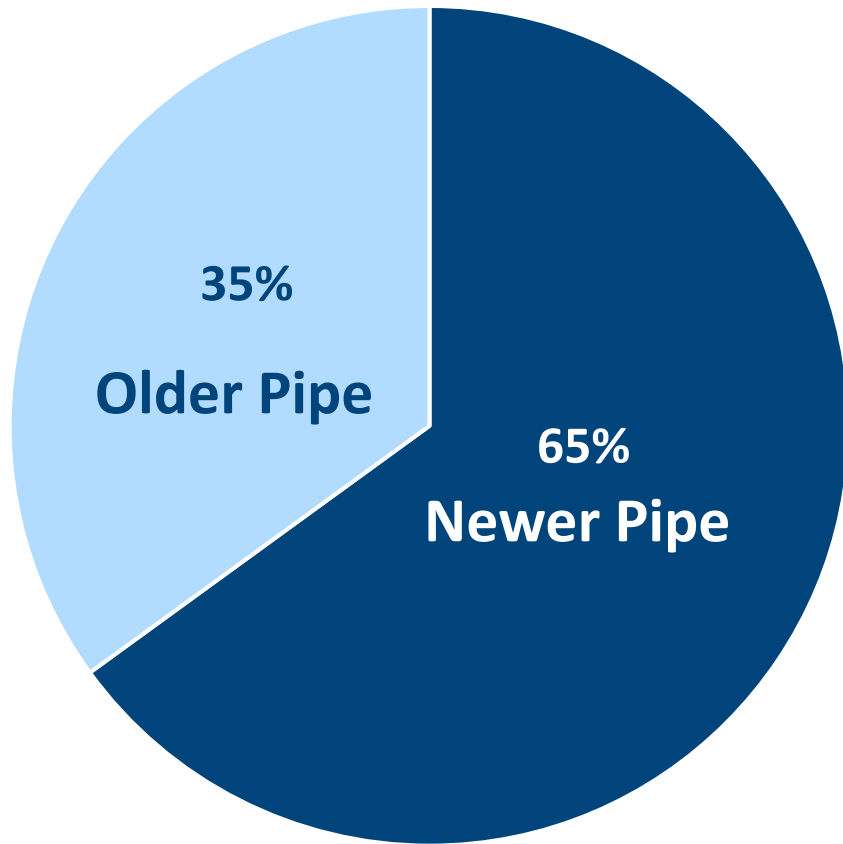
- Century II investments in water began in 2006
- Utility assets and infrastructure management
 - Comprehensive, data-driven assessments
 - 10-year financial plans, including debt, rates
 - Improves safety, reliability, quality, and resilience
 - Prioritizes proactive customer communication
 - Positions our communities for growth
- Cross-functional planning and oversight
- Evolving with technology and experience

Century II



KUB Investing for
Another 100 Years

Century II Investments Safeguard Water System



Water Supply Master Plan Builds Resiliency

Phase	Project	Timeframe	Cost
Phase 1 Complete	High Service Main	FY17 – FY18	\$2.2M
	Ph 1 Electrical Upgrades	FY17 – FY18	\$2.3M
	Generators	FY19 – FY21	\$12.9M
Phase 2 Underway	Filters	FY22 – FY25	\$65M
Phase 3 Future	Raw Water Distribution & Phase 2 Electrical	FY26 – FY27	\$12M
	Low Pressure Pump Station & Intake	FY28 – FY30	\$20M
	High Service Pump Station & Clearwell	FY30 – FY32	\$30M



Investments in Maintenance & Technology Ensures System Performance

- Proactive system modeling and planning
- Pressure management
- Station and tank maintenance
- Transmission and distribution valve inspection
- Test hydrants for fire flow requirements
- Leak detection (find and fix)



Laboratory and Water Quality Assurance

- State-certified laboratory
 - 20 experienced employees
 - Over 100K tests annually
 - 150 parameters
- Water quality programs and continuous monitoring
 - Daily analysis
 - Customer quality programs
 - Cross connection prevention
 - System flushing
 - Source water protection program



Industry Recognition for Water System

- Two-time Water Resources Utility of the Future recipient
- Two National Environmental Achievement Awards 2020
- Water Quality Lab
 - Perfect scores on past three inspections (every three years)
 - Certified for more tests than any Tennessee public system



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