



Financial Plan Workshop
April 17, 2014

**Century II –
Building for the Next 100 Years**

- 2007
 - KUB began building the Century II program
- 2011
 - 10-year funding plans for water and electric
 - Multi-year rate increases for water and electric
- 2013
 - 10-year funding plans for gas and wastewater

Century II Funding Plans on Track

Total Increase Amounts		
	FY 12–14	FY 15–17
Electric	\$3	\$3
Water	\$3	\$4
Natural Gas	\$3	\$3
Wastewater	\$5	\$9

Successful Implementation Requires Diligence

- Continuous planning includes Board input
- Funding plans build sustainability
- Goals evolve to meet system needs
 - Changing focus based on system assessment
 - Changing metrics to balance costs and customer impacts
- Our commitment is to use our resources wisely
- Century II approach matches industry goals

American Society of Civil Engineers 2013 Report Card: National Grade D+

1.

INCREASE LEADERSHIP IN INFRASTRUCTURE RENEWAL

America's infrastructure needs bold leadership and a compelling vision at the national level.

2.

PROMOTE SUSTAINABILITY AND RESILIENCE

Sustainability, resiliency, and ongoing maintenance must be an integral part of improving the nation's infrastructure. Today's transportation systems, water treatment systems, and flood control systems must be able to withstand both current and future challenges.

3.

DEVELOP AND FUND PLANS TO MAINTAIN AND ENHANCE AMERICA'S INFRASTRUCTURE

While infrastructure investment must be increased at all levels, it must also be prioritized and executed according to well-conceived plans that both complement the national vision and focus on systemwide outputs.

Stewardship Requires Leadership

“Our nation’s infrastructure problems are solvable if we have leadership and commit to making good ideas a reality.”

–American Society of Civil Engineers,
2013 Report Card for America’s Infrastructure

“The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased; and not impaired in value.”

– Theodore Roosevelt, 1910

Agenda

- Funding the Vision Mark Walker
- Supporting Growth Mike Bolin
- Supporting the Environment Susan Edwards
- Financial Plan Details Jamie Davis
- Proposed FY 15 Budget Mark Walker

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Funding the Vision

It's All About Stewardship

- Utility system assets
- Customers' dollars
- Environment
- Current and future generations

KUB Exists for Its Customers

- Our vision is to improve our customers' quality of life by providing utility services that are
 - Reliable
 - Affordable
 - Safe
- Balance is critical

Keys to Success

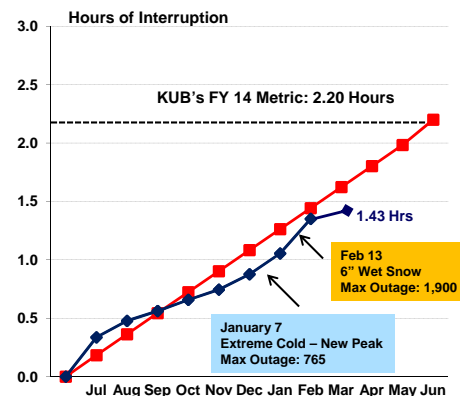
- Managing our utility system infrastructure
- Improving the customer experience
- Managing our finances effectively
- Meeting/exceeding regulatory standards
- Investing in a skilled, diverse workforce
- Promoting economic development
- Being environmentally responsible

Metrics Reflect Positive Results

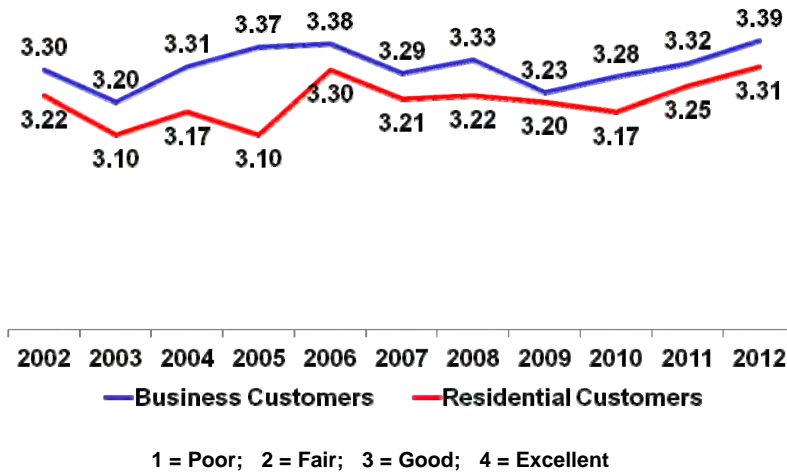
- Improving electric system reliability
- Decreasing sanitary sewer overflows (SSOs)
- Highest customer satisfaction in 2012
- Highest billing accuracy in 2013
- Lowest safety incidents in 2013
- \$260 million in cost savings
- Competitive rates

Electric System Investment Improves Reliability

- Vegetation management and Century II are helping
- Customers recognize impact on reliability
- Only isolated outages during recent winter cold/snow events
- On track for best reliability ever in FY 14



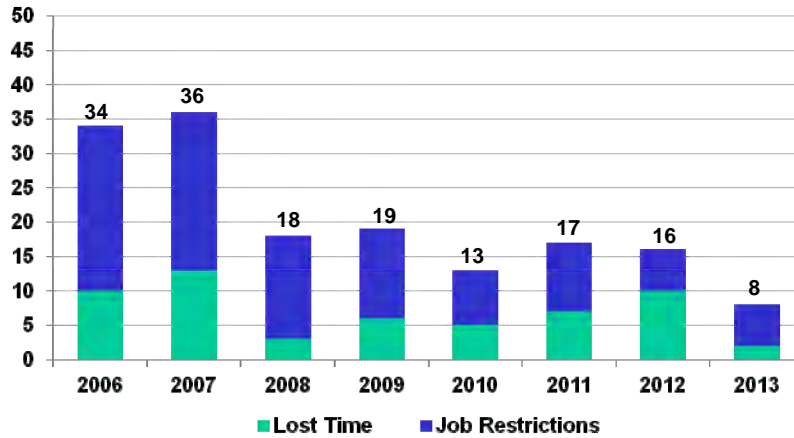
Customer Satisfaction Improves



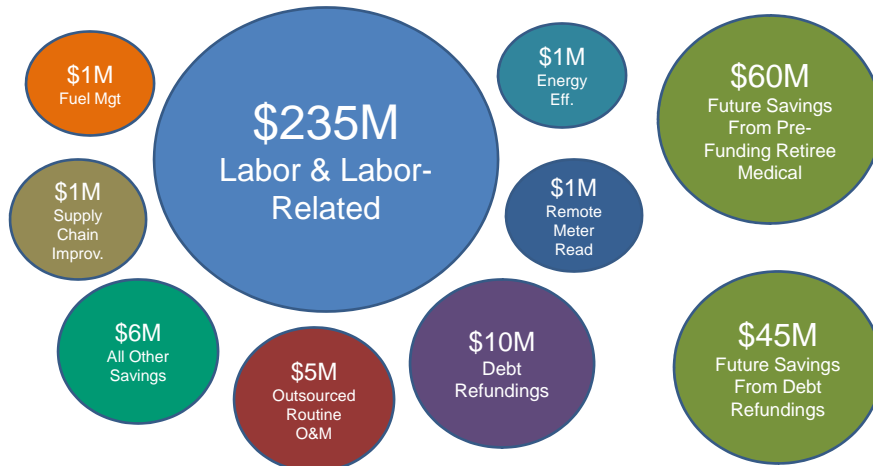
Billing Accuracy Reaches Peak Performance in 2013

- 2.6 million customer bills
- 99.79 percent correct – only 2 out of every 1,000 required an adjustment
- Reflects continuous improvement

Lowest Level of Safety Incidents in 2013



\$260M In Cost Savings Since 1993 Continues Into the Future



We Have Challenges

- Declining sales
- Modest growth
- Increasing system regulations/costs
- Rising customer expectations (reliability, communication, environment, etc.)
- Less financial flexibility
- Water plant redundancy
- Electric grid modernization

PACE 10 Program on Schedule

- All Consent Decree (CD) required collection system projects complete (134 total)
- Phase I plant upgrades at Kuwahee and Fourth Creek complete
- Phase II plant upgrades completed by 2021
- Other CD requirements on schedule
- \$475 million in capital investment through FY 2014
- On time and on budget!

KUB Pension Fund Well Managed

Govt. Pension Plans (Non-TCRS)	Funded Ratio Market Value	Unfunded Liability	2012 Required Contribution	% of 2012 RC Funded
Hamilton County	216%	(\$1,157,000)	\$50,000	135%
Knoxville Utilities Board	95%	\$10,373,000	\$3,244,000	100%
Murfreesboro Electric Department	90%	\$909,000	\$798,000	117%
Maury Regional Medical Center	88%	\$5,603,000	\$728,000	100%
Murfreesboro	87%	\$15,209,000	\$4,706,000	97%
Smyrna	84%	\$957,000	\$227,000	100%
Knox County Uniformed Officers	84%	\$24,189,000	\$4,109,000	107%
Knox County Board of Education	82%	\$14,185,000	\$1,047,000	100%
Lawrenceburg Utility System	82%	\$2,900,000	\$406,000	132%
Memphis Light, Gas & Water	81%	\$255,440,000	\$57,330,000	100%
Elk River Public Utility District	81%	\$754,000	\$192,000	156%
Chattanooga General Employees	81%	\$54,721,000	\$7,203,000	93%
Memphis	79%	\$562,255,000	\$90,363,000	23%
Shelby County	79%	\$272,024,000	\$23,402,000	100%
Collierville	78%	\$9,888,000	\$2,289,000	125%
Franklin	77%	\$19,078,000	\$4,276,000	102%
Germantown	76%	\$16,750,000	\$2,307,000	100%
Nashville	75%	\$711,926,000	\$127,229,000	91%
Dyersburg City Schools	72%	\$1,724,000	\$120,000	0%
Nashville Electric Service	72%	\$142,859,000	\$21,713,000	100%
Bartlett	69%	\$24,185,000	\$3,446,000	89%
Knox County General Employees	67%	\$25,022,000	\$1,497,000	59%
City of Knoxville	67%	\$218,387,000	\$11,387,000	101%
Dyersburg Electric	67%	\$2,767,000	\$365,000	112%
Lenoir City Utilities Board	62%	\$8,098,000	\$1,446,000	65%
Metro Nashville Airport Authority	61%	\$17,332,000	\$2,817,000	53%
Alcoa	59%	\$14,641,000	\$1,194,000	72%
Hallsdale Powell Utility District	58%	\$3,654,000	\$803,000	86%
Columbia	55%	\$27,389,000	\$1,970,000	97%
Chattanooga Fire and Police	52%	\$196,661,000	\$11,860,000	101%
Dyersburg	22%	\$14,216,000	\$1,486,000	51%

Meeting Our Challenges

- Continuing Century II/PACE10 investments
- Continuing to shift cost recovery to fixed charges
- Continuing emphasis on cost management
- Continuing to incorporate environmental stewardship into everyday operations
- Developing long-term water reliability strategy
- Developing options for Smart Grid
- Continuing to improve electric reliability
- Continuing to support local economic development

Board's Vision Drives Our Plan

- Commitment to Century II, PACE 10, and other initiatives
- Endorsement of long-term funding plans
- Adoption of multi-year rate increases
- Use of debt capacity to balance capital costs between current and future customers
- Maintaining balance between system investment and customer affordability

Funding Plans Reflect Vision

- On track to achieve Century II and PACE10 goals
- Proposed rate increases consistent with funding plans endorsed by Board
- Use of debt consistent with thresholds supported by the Board
- All systems financially sound



Supporting the Community's Growth

Supporting the Community's Growth Is a KUB Core Principle

- Significant dedicated staff resources
- Close collaboration with other economic development partners such as
 - City
 - Chamber
 - State
 - TVA
- Financially sound investments



South Knoxville Projects



Former Baptist Hospital Site



Fort Dickerson Road Realignment



Suttree Landing Park

Cumberland Avenue Streetscape



Investing for System Growth Kingston Pike at Cedar Bluff Road

2007



2014



Kingston Pike at Cedar Bluff Road

- 146 total acres of area development
- Two primary centers opened 2012; third opening summer 2014
- 466 new residential customers
- 24 new commercial customers
- 912 new jobs created
- Total annual wages: \$16.7M

Kingston Pike at Cedar Bluff Road Current Businesses



- Academy Sports
- Aldi
- Amberleigh Bluff Apartment Homes
- AT&T
- Chuy's Restaurant
- Fred Meyer Jewelry
- GFS marketplace
- GNC
- Great Clips
- Kroger
- Natural Alternatives Hair Spa
- Newk's Express Café
- Orange Leaf
- Pack & Mail Plus
- Salsarita's Cantina
- Sherrill Hills Retirement Community
- Starbucks
- Suntrust Bank
- Y-12 Federal Credit Union

Kingston Pike at Cedar Bluff Road Financials

- KUB investment: \$313,000
- Customer investment: \$74,000
- Annual revenue: \$1.7M

Investing for Customer Growth Keurig Green Mountain, Inc.

- World leader in single-serve coffee manufacturing
- Located in Forks of the River in vacant plant
- Full-time employees
 - 360 new jobs created (2008)
 - 939 total workforce (2012)
- Knoxville plant produces 80 million K-Cups per week
- Average annual wage: \$31,000

Keurig Green Mountain, Inc. Forks of the River Industrial Park

- Initial investment (2008)
 - KUB \$0
 - Customer \$0
- Plant expansion (2011)
 - KUB \$86,000
 - Customer \$0
- Annual revenue: \$2M



Investing for Customer Retention Gerdau Ameristeel

- U.S. leader in steel rebar production
- 56 North American plants
- Dedicated KUB electric substation in 2003
- Corporate-wide strategic review of plants
 - Multiple plant closings across U.S.
 - Knoxville mill contingency concerns
 - Additional dedicated transformer added in 2010

Gerdau Ameristeel

- KUB investment \$2M
- Customer investment \$0
(load commitment)
- Annual revenue \$24M
- Total jobs 310



Investing for Customer Recruitment Cherokee Farm Innovation Campus

- Research and development campus
 - Focus on Materials Science and Energy
 - UT and ORNL partnership
 - Unique access to high-performance computing, tools, and researchers
- 188 acre site
- 16 building sites (1.6M sq. ft.)

Cherokee Farm Innovation Campus

Illustrated Master Plan



Cherokee Farm Innovation Campus Financials

- KUB investment: \$6.5M
- Customer investment: \$1.5M
- Joint Institute for Advanced Materials
 - Total jobs: 181
 - Total annual wages: \$9.9M

Project Minster Recruitment

- Knoxville Chamber responds to site selection consultant
- Collaboration with KUB
 - Preliminary utility rate analysis
 - Water process and quality review
- On-site meeting and proposal
- Follow-up review
- Site selection

Project Minster

Water Quality and Process Review

- Water hardness
- Water temperature
- Treatment process
 - Seasonality adjustments
 - Intake sampling
- Distribution system contingencies
- Review water quality test data detail

Fresenius Medical Care

- World's largest integrated provider of dialysis products and services
- Capital investment: \$140M
- New jobs: 665
- Average annual wage: \$30,000



Fresenius Medical Care Financials

- KUB investment: \$0
- Customer investment: \$0
- Annual revenue: \$3.8M
 - Water: #1 (20M gallons/month)
 - Wastewater: #3 (13M gallons/month)
 - Electric: Top 12 (5 MW: 80 percent load factor)
 - Gas: Top 25 (2,100 Dth/month)

Economic Development Is a Core Principle

- Fiscally responsible investments in the community's growth
- Supportive of a vibrant growing community
 - Good job opportunities
 - Better quality of life
- Helps address challenge of declining sales



Supporting Our Environment

KUB's Approach to Environmental Stewardship

- Support for customer efforts
 - Information
 - Access to resources
- Integration of environmental activities in daily operations
- Support for community efforts



Community Efforts City of Knoxville Initiatives

- City Sustainability Task Force
- IBM Smarter Cities Challenge
 - Partner in application process
 - Participant with IBM consultants
 - Ongoing support of Stakeholder Council and subcommittees
 - Development of Round-Up program
- Task Force on Climate Change Preparedness and Resilience



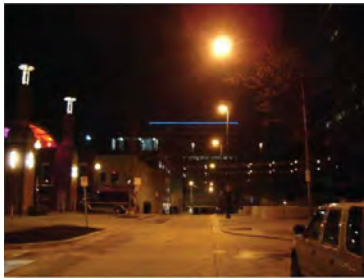
Community Efforts UT Steam Plant Conversion

- Converts UT's coal-fired steam plant to natural gas
 - Reduces emissions
 - Equivalent to removing 7,000 passenger vehicles a day
- Costs shared
 - UT: \$9M
 - KUB: \$14M

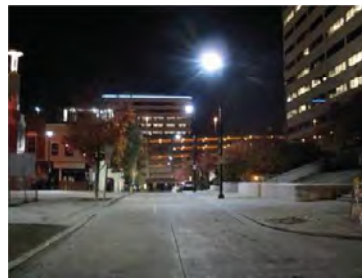


LED Lighting Study Provides Real-World Experience

- Joint project with TVA, EPRI, City of Knoxville
- Replaced 10 fixtures with LED on Wall Avenue
- 71 percent reduction in energy use
- Better understanding of LED technology



High Pressure Sodium



LED

Wastewater Treatment and Environmental Stewardship

- First and foremost: KUB plants treat 44 MG of wastewater every day (on average)
- Biosolids program provides beneficial reuse of residuals
- Plant processes use recovered methane
- Improvements are made with efficiency considerations in mind

Wastewater Blowers Save Energy and Money

- Blowers are used to aerate wastewater flows
- Original blowers were large and had limited flexibility
- New design included smaller turbo-blowers
 - Integrated controls
 - Variable speed drives
 - Much higher energy efficiency
- Savings average \$21,000/month, \$250K/yr.



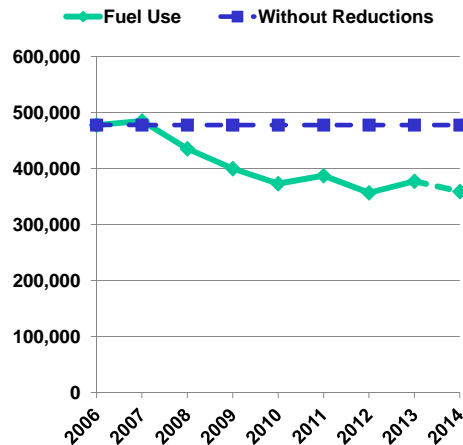
KUB Fleet Programs

- Critical support function for all areas
- Integrated environmental focus
 - Alternative fuels
 - Fleet utilization
 - Efficient operations



Fleet Initiatives Save \$1M Since 2006

- Better job/route planning
- Realigned garage functions to reduce maintenance commutes
- Anti-idling policy
- Increased use of hybrids



Hybrid Vehicles Provide Multiple Benefits

- Hybrid bucket trucks
 - 5 in the fleet
 - 6 more on the way
- Grant programs support hybrid technology
- Improved safety
- Decreased idling, noise



Award Winning Environmental Results

- Multiple Silver, Gold, and Platinum awards for wastewater plant operations
- National Biosolids Partnership designation
- Multiple Green Power Switch awards recognizing strong customer participation
- Annual Tree Line USA designation since 2001
- Top 100 Alternative Fuel Fleets
- 100 Best Fleets in North America

KUB's Environmental Focus

- The nature of what we do supports the environment
- As we carry out our primary mission, we also try to do it in an environmentally—and financially—responsible way
- Balance is key



Financial Plan Details

Keys to Our Financial Strategy

- Cost management
- Using debt in a balanced manner
- Generating cash to fund operations
- Maintaining cash reserves
- Charging competitive rates
- Maintaining high-quality credit ratings

Electric Key Assumptions And Indicators

Annual Commercial Consumption	1% decline
Annual Customer Additions	850 – 1,550
Interest Rate on New Debt	4.25% – 5.00%
Term of New Debt	30 years
Debt Ratio	45% or less
Debt Coverage	3.0 or more
Debt Ratings	AA+/Aa2

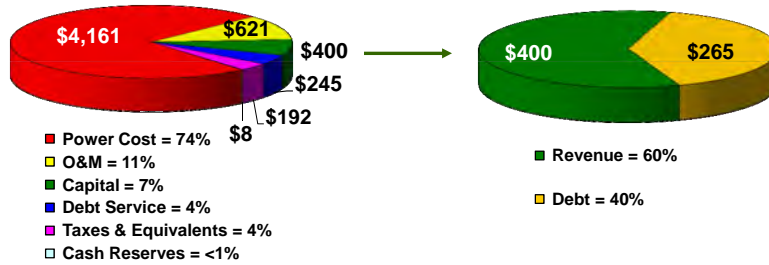
Electric System Funding Plan FY 15 – FY 24 Capital = \$665M

- Annual rate adjustments
 - Apply \$1 to residential customer charge for FY 2015, 2016, and 2017 increases
 - Impacts will vary on commercial/industrial customers
- Bond issues totaling \$265M
 - Maturities extend over 30 years
 - Debt ratio will approach 45 percent
 - Debt service coverage of 3.0 will be met

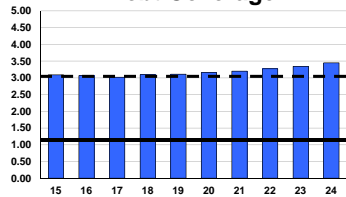
Electric Financial Plan FY 15 – FY 24

Revenue = \$5.6 Billion

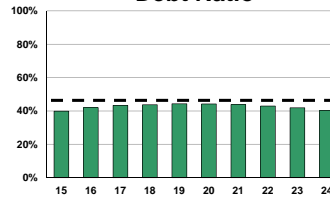
Capital = \$665 Million



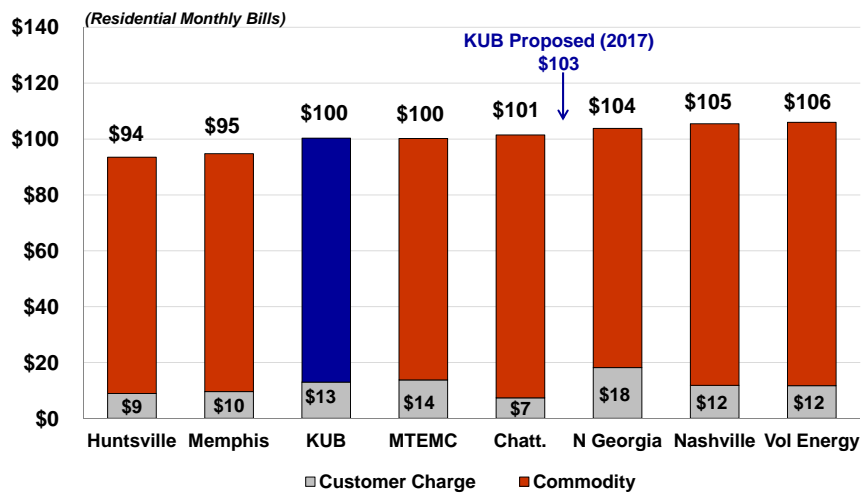
Debt Coverage



Debt Ratio



Electric Rates Remain Competitive After Proposed Increases



Average monthly bill based on 1,000 kWh

Electric System in 10 Years (FY 24)

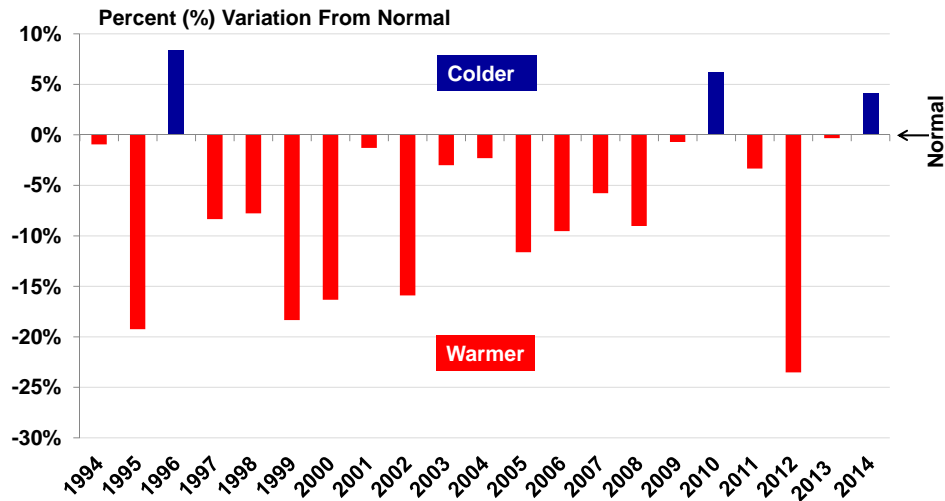
Sound, Reliable System

- Replace additional 26,000 poles (20 percent of system)
- All XLP underground cable replaced
- 98 percent of substations modernized
- 70 percent of 69 kV system updated
- All substations linked by fiber for communications

Natural Gas Key Assumptions And Indicators

Weather Assumption	200 HDD < normal
Annual Residential Usage	1% decline
Annual Customer Additions	500 – 1,300
Interest Rate on New Debt	4.25% – 5.00%
Term of New Debt	30 years
Debt Ratio	35% or less
Debt Coverage	3.0 or more
Debt Ratings	AA/Aa2

Mild Winters Have Occurred Frequently



Natural Gas Key Assumptions And Indicators

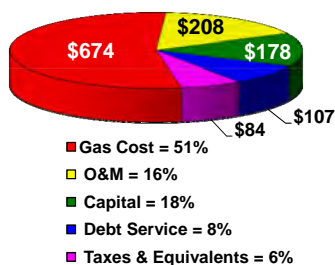
Weather Assumption	200 HDD < normal
Annual Residential Usage	1% decline
Annual Customer Additions	500 – 1,300
Interest Rate on New Debt	4.25% – 5.00%
Term of New Debt	30 years
Debt Ratio	35% or less
Debt Coverage	3.0 or more
Debt Ratings	AA/Aa2

Gas System Funding Plan FY 15 – FY 24 Capital = \$243M

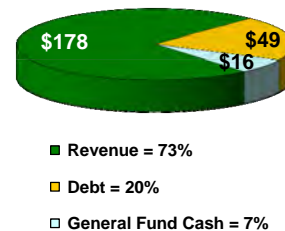
- Annual rate adjustments
 - Apply \$1 to residential customer charge for FY 2015, 2016, and 2017 increases
 - Impacts will vary on commercial/industrial customers
- Bond issues totaling \$49M
 - Maturities extend over 30 years
 - Debt ratio will decline to less than 30 percent
 - Debt service coverage of 3.0 will be met

Gas Financial Plan FY 15 – FY 24

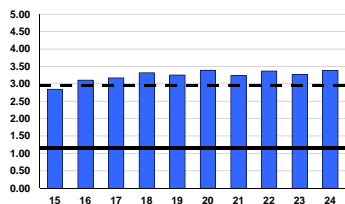
Revenue = \$1.3 Billion



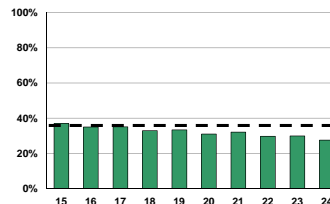
Capital = \$243 Million



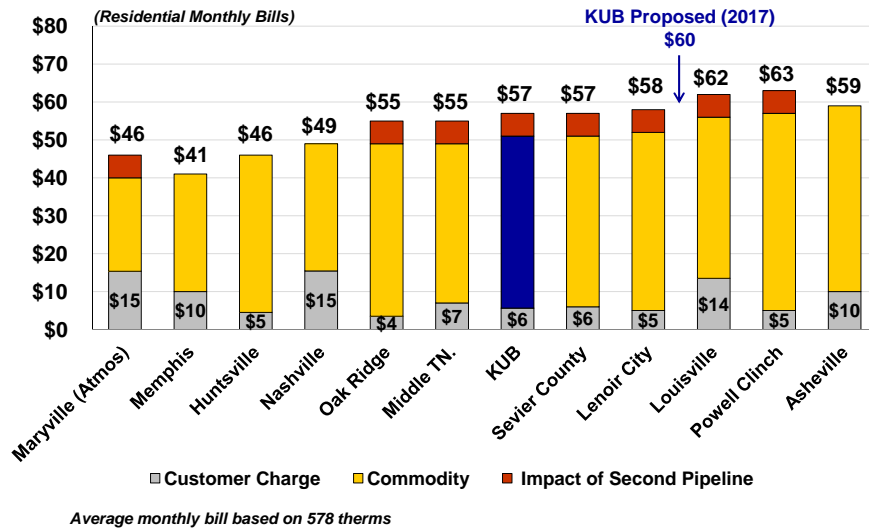
Debt Coverage



Debt Ratio



Gas Rates Support Reliability



THE DAILY TIMES



40°
Few Clouds

HOME NEWS SPORTS BUSINESS COMMUNITY ENTERTAINMENT OPINION PUBLIC RECORDS COLUMNS MULTIMEDIA CLASSIFIEDS

Cold weather brings natural gas problems to Blount County

Story Comments

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Posted: Wednesday, January 8, 2014 12:00 a.m.

By Joel Davis and Iva Butler | joeld@thedailytimes.com, ivab@thedailytimes.com | 0 comments

Some homes in Blount County continue to deal with heating problems as Atmos Energy experienced low pressure issues in parts of its natural gas system on Wednesday.

On Tuesday, some homes in the Amerine, Merritt and Northfield areas of Blount County were without heat. On Wednesday, there were reports that the gas was out in the vicinity of Rachael's Place condos and Northfield.

Atmos spokeswoman Denise Manning said that the utility continues to work on resolving the issue. "Please know that Atmos Energy is aware of the areas that are experiencing problems, and we're working to deliver gas as quickly as possible; however, we are unable to predict the exact time when individual customers will have their issues resolved."

Gas System in 10 Years (FY 24)

- 35-year cast iron replacement program complete
- South Loop Project complete
- Low-pressure steel main program will be 50 percent complete
- System will be 93 percent plastic, 3 percent high-pressure steel, and 4 percent low-pressure steel
- Regulations will include continual assessment and renewal of all system components

Water Key Assumptions And Indicators

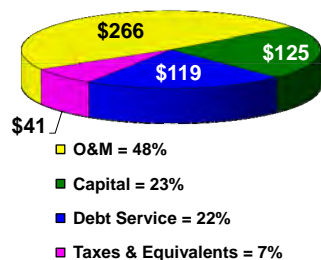
Annual Customer Usage	1% decline
Annual Customer Additions	220 – 325
Interest Rate on New Debt	4.25% – 5.00%
Term of New Debt	30 years
Debt Ratio	50% or less
Debt Coverage	2.0 or more
Debt Ratings	AA+/Aa2

Water System Funding Plan FY 15 – FY 24 Capital = \$247M

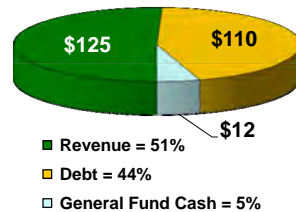
- Annual rate adjustments
 - Apply \$2, \$1, and \$1 to residential customer charge for FY 2015, 2016, and 2017 increases
 - Impacts will vary on commercial/industrial customers
- Bond issues totaling \$110M
 - Maturities extend over 30 years
 - Debt ratio expected to exceed 45 percent
 - Debt service coverage of 2.0 will be met

Water Financial Plan FY 15 – FY 24

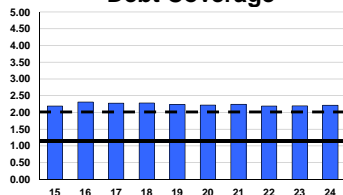
Revenue = \$551 Million



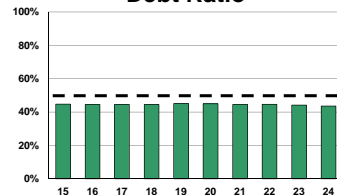
Capital = \$247 Million



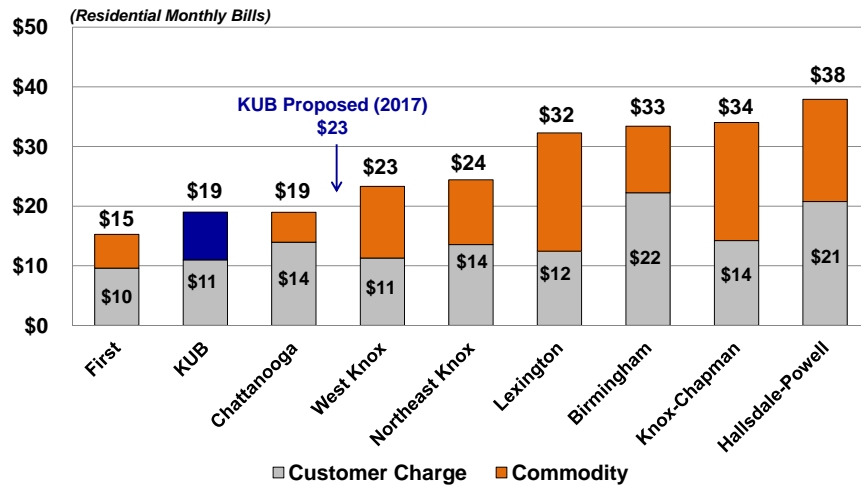
Debt Coverage



Debt Ratio



Water Rates Competitive



Average monthly bill based on 3,740 Gallons

Water System in 10 Years (FY 24)

- Century II pipe replacement continues on schedule
 - All galvanized main eliminated
 - All but 5 miles of large diameter cast iron main replaced
 - 40 miles of other cast iron main replaced
 - 24 miles of cement-lined pipe replaced
- Century II significantly improves system
 - Before: Older pipe types make up 50 percent of system
 - In 10 years: Older pipe types about 33 percent of system

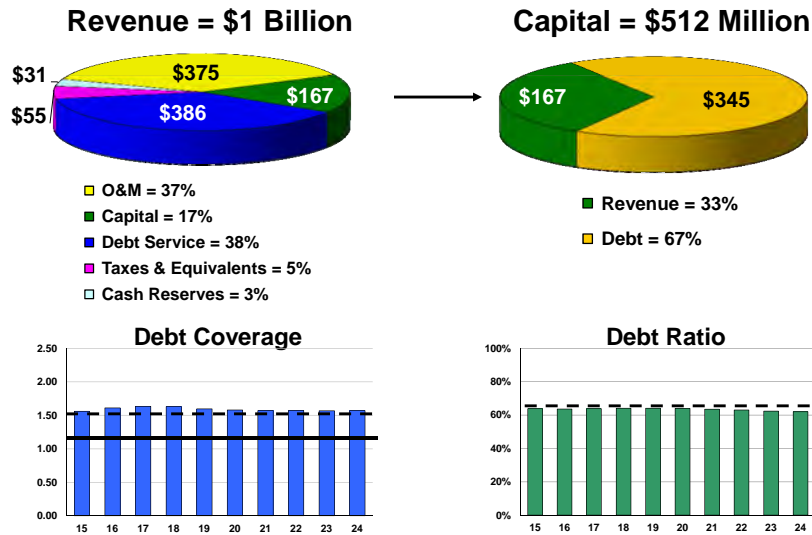
Wastewater Key Assumptions And Indicators

Annual Customer Usage	1% decline
Annual Customer Additions	250 – 400
Interest Rate on New Debt	4.5% – 5.0%
Term of New Debt	35 years
Debt Ratio	65% or less
Debt Coverage	1.50 or more
Debt Ratings	AA+/Aa2

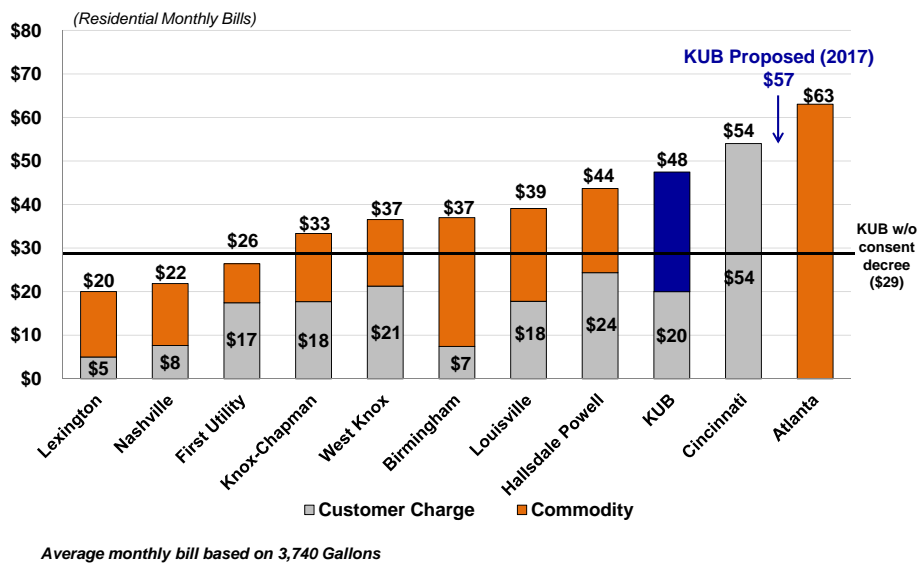
Wastewater System Funding Plan FY 15 – FY 24 Capital = \$512M

- Annual rate adjustments
 - Apply \$3 to residential customer charge for FY 2015, 2016, and 2017 increases
 - Impacts will vary on commercial/industrial customers
- Bond issues totaling \$345M
 - Maturities extend over 35 years
 - Debt ratio improves slightly within the 60–65 percent range
 - Debt service coverage of 1.5 will be met

Wastewater Financial Plan FY 15 – FY 24



CD Drives Wastewater Rates



Wastewater System in 10 Years (FY 24)

- Consent Decree completed in 2021
 - All 134 required collection system projects already complete in 2014
 - Phase II upgrades at Kuwahee and Fourth Creek WWTPs by 2021
- Infrastructure Replacement Program (IRP)
 - Century II for wastewater
 - Continues at 25 miles per year (2 percent of system)
- PACE10 significantly improves system
 - Before: Older pipe types make up 75 percent of system
 - In 10 years: Older pipe types about 33 percent of system

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Proposed FY 15 Budget

Proposed FY 15 Budget: \$867M

	Electric	Gas	Water	WWater	Total
Energy Cost	\$412.4	\$61.0	\$ --	\$ --	\$473.4
O&M	\$57.0	\$18.2	\$23.4	\$33.7	\$132.3
Capital	\$69.1	\$31.5	\$27.2	\$40.4	\$168.2
Debt Service	\$16.5	\$9.6	\$8.9	\$28.9	\$63.8
Taxes and Equivalents	\$14.8	\$7.0	\$3.3	\$4.4	\$29.5
	\$569.8	\$127.2	\$62.8	\$107.4	\$867.2

\$ in Millions

Proposed Budget Nearly Flat Up 1.8 Percent Over FY 14 Budget

	FY 14 Budget	FY 15 Proposed	Increase (Decrease)	
Energy Cost	\$470.3	\$473.4	\$3.1	
O&M	\$127.1	\$132.3	\$5.2	Staffing \$0.4M; Wage Growth \$0.8M Pension \$0.8M; Meter Read \$0.6M Software \$0.7M; Chemicals \$0.3M
Capital	\$166.2	\$168.2	\$2.0	South Loop
Debt Service	\$60.1	\$63.8	\$3.7	\$78M New Bonds
Taxes & Equivalents	\$28.1	\$29.5	\$1.4	Infrastructure Investment
	\$851.8	\$867.2	\$15.4	

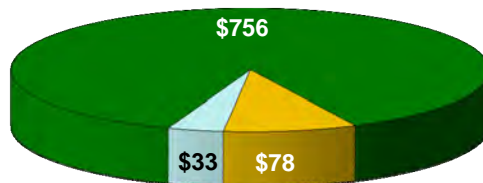
\$ in Millions

FY 15 Budget Key Components

- East Knox Substation \$8.5M
- Cherokee Trail Substation \$3.2M
- South Loop \$13.5M
- Gas cast iron main replacements \$3.4M
- Century II \$78.1M
- PACE 10 \$27.9M

Funding Proposed FY 15 Budget

Proposed Budget = \$867 Million



- Revenue = 87%
- Bonds = 9%
- General Fund Cash = 4%

Proposed Funding Items Requiring Official Action

- May Board meeting
 - FY 14 additional appropriations
 - Three years of rate increases for all systems
 - Electric, Water, and Wastewater bonds
 - Gas Line of Credit
 - FY 15 Budget
 - FY 15 Commitments
- June Board meeting
 - Rate increases (second reading)