

Pre-Live Meeting Preparation

- No business is to be discussed until meeting is live
- Test video, microphone & audio
- Turn on chat & use for technical difficulty only
- Commissioners will be muted after approval of minutes (if on cell phone: *6 to unmute)
- Questions will be requested at end of each presentation

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Public Comments

- There will be a 30 second pause in the meeting to allow transition to public comments
- Members of the public who will address the Board are asked to mute any devices in the background to reduce audio difficulties

Financial Workshop

FY 2021 Budget Discussion

April 16, 2020



Incident Command Leading Response

- All Level 4 (social distancing) actions completed
- Transitioned to Level 3 (safer at home/work)
 - Over 300 employees working from home
 - Most routine work continues (no planned in-home work)
 - Customer Service Centers closed April 1
- Prepared to continue operations
 - Routine work suspended at Level 2
 - Critical work only at Level 1

Focusing on Employee Health

- Enhanced facility and vehicle cleaning
- Maintaining supply of personal hygiene and protective equipment
- Employee health and work decisions guided by our Occupational Health team
- Requiring social distancing and working from home
- Communicating with employees daily

Continuing to Serve Our Customers

- Suspended disconnections for nonpayment
- Waiving transaction fees
- Increased communication through social media
- Maintaining systems to provide safe and reliable service





Our Vision:

KUB exists to serve its customers, improving their quality of life by providing utility services that are safe, reliable and affordable.

Shared Values:

- We value the safety and well-being of our customers and employees.
- We value fairness, and try always to make decisions that provide the greatest good for the most people.
- We are in a position of trust and hold ourselves to high ethical standards.
- We improve the value of our services through efficiency, innovation and communication.
- We value the commitment and hard work of our employees.
- We are environmentally responsible in our operations and support the sustainability of our communities' natural resources.
- We participate in the communities we serve.

Our Mission:

Our mission is to act as good stewards of our communities' resources: utility assets, customer dollars, and the environment. We work to safeguard those resources and enhance their value for the people of the communities we serve and generations to come.

We Measure Our Success by:

Customer Satisfaction

System Performance

Financial Performance

Safety Performance

Keys to Success:

Managing Our Utility System Infrastructure

Electric

Natural Gas

Water

Wastewater

Improving The Customer Experience

Managing Our Finances Effectively

Meeting Or Exceeding Regulatory Standards

Investing in A Skilled, Diverse Work Force

Partnering For Economic Development

Being Environmentally Responsible

10-Year Plan Still Reflects Our Vision

- Continue Century II and Water Plant Resiliency
- Complete advanced meter deployment in 2020
- Complete Consent Decree in 2021
- Significant increase in sustainability investments
- O&M and Capital savings
- Lower level of rate increases
- Lower system debt levels

Pandemic Drives Changes to Plan

- New economic assumptions
 - Interest rates/investment returns
 - Timing of capital projects
- Adjustments to rate recommendations
- Proposed budget down slightly from FY 20
- Deferral of decision on use of TVA credit except for Green Invest and low-income program

No Rate Increases in FY 2021

■ November forecast

- No electric rate increases for two years
- No natural gas rate increases for three years
- Reduction in wastewater rate increases
- No increase in basic service charges

■ New reductions

- Water rate increase deferred until next year
- Wastewater rate increase deferred until next year

Additional Rate Recommendations

- Defer changes to electric GSA rate structures to spring 2021
- Move forward with Pilot Time of Use (TOU) electric rates for residential and business customers
- Move forward with Purchased Power Adjustment amendments

Today's Agenda

- Susan Edwards Low-Income and Sustainability Programs
- Derwin Hagood FY 21 System Improvements
- Mark Walker Financial Plan
 - Long Term Financial Plans
 - FY 21 Rates and Budget Overview

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Low-Income and Sustainability Programs

April 16, 2020



Customer Care And Environmental Stewardship Are Key to KUB's Mission

- KUB exists to serve its customers
- KUB has a long legacy of customer assistance and environmental stewardship
- Investments require balance with needs for safe, reliable, and affordable utility services

Continuing Dedication to Helping Those in Need

- Customer counseling
- Project Help
- Energy & Water Savings Workshops
- United Way campaigns
- Vol Time with community agencies



Building on Legacy of Environmental Stewardship

- Efficiency in operations
 - Alternative fuel fleet
 - Biosolids beneficial reuse
 - Renewable energy at facilities
- Early adopter of TVA pilots
 - Green Power Switch/Generation Partners
 - Enel X demand response program
 - Home Uplift
 - Smart Thermostats
- Electric vehicle charger rebate



\$1.3M New Investment in Weatherization

- 1,700+ served with \$20M since 2015
- Customers contribute ~\$700K/year through Round It Up
- KUB proposed budget adds \$1M/year
- TVA Home Uplift provides \$361K in matching funds
- Partners continue to seek new funding sources



New Low-Income Efficiency Program

- Replace older toilets with free, installed low-flow toilet
- Direct installation of energy savings measures while on site
- Funded by KUB with \$500K/year
- TVA providing direct-install energy saving kits
- Administered by CAC
- Owners and renters eligible



Community Solar Initiative

- A TVA Flexibility Research Project in partnership with City of Knoxville
- \$1.5M investment
- Up to 700 kW of solar on City-owned site
- Provides option for customers to invest in local solar



Green Invest Solar Purchase

- 212 MW of new solar power for \$825K/year
- First-of-its-kind investment by a municipal utility in the Valley
- Enough power for 35,000 homes
- Significantly advances carbon emissions reduction in KUB service area

Customer and Sustainability Investments

- Support for low-income customers
 - New investments in weatherization help address long term energy affordability
 - New water efficiency program helps address dual impacts of water and wastewater costs
- Support for a sustainable environment
 - Community solar provides a new customer option
 - Green Invest solar purchase benefits all customers

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Utility Systems

April 16, 2020



Overview

- Current focus of each utility
- Century II accomplishments
- Major upcoming projects and programs

Century II

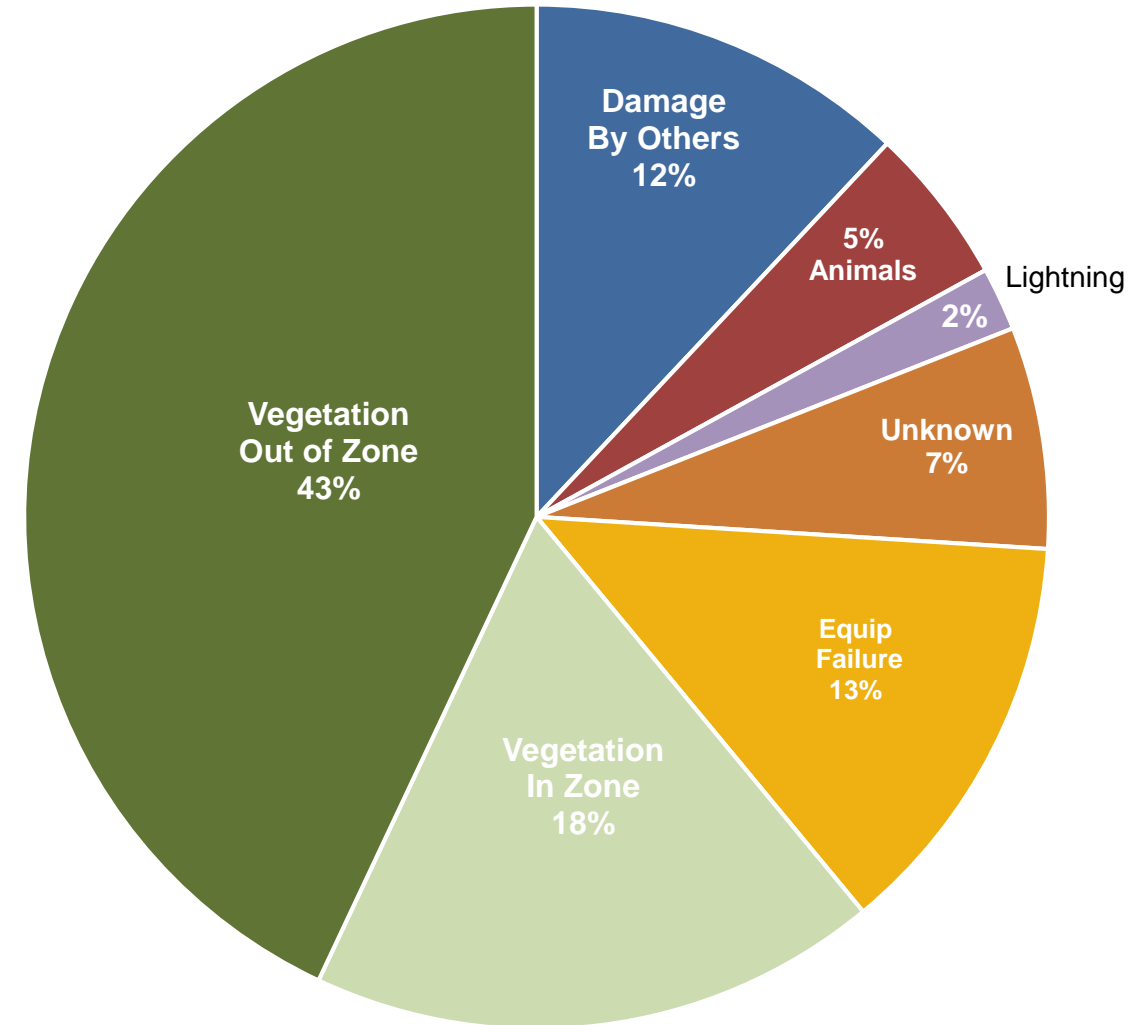


KUB Investing for
Another 100 Years

Electric: Focus on Reliability

- Data drives prioritization of system upgrades
- Pick "right tool for task"
 - Vegetation Management
 - Century II replacements
 - Reclosers and fuses
 - Line relocations
 - Looped circuits
 - Strategic undergrounding
 - Animal guarding

FY19 Outage Causes



Century II Accomplishments

- Substations – about halfway through 20-year program
- Poles – modifying replacement rate
 - First cycle replaced over 20,000 poles
 - New replacements based on upcoming pole assessment
- Underground Cable – XLP 90% complete on 30-year program, with other cable types yet to be replaced
- Transmission Lines and Fiber Optic Cable – 118 of 265 miles complete, remainder by FY 30

Upcoming Projects and Programs

- Western Avenue Infeed Substation: \$17M in FY 21-22
- 69kV - Eastbridge to Strawberry Plains: \$2.1M in FY 21
- Pole Inspection: \$1.4M in FY21
- Veg Management: \$12M in FY21
 - Focus on transmission lines
 - Removing more hazard trees
 - Bringing Foresters in-house
- Electric Master Plan: \$215K
 - Consultant through RFQ
 - Final Report by Fall 2020



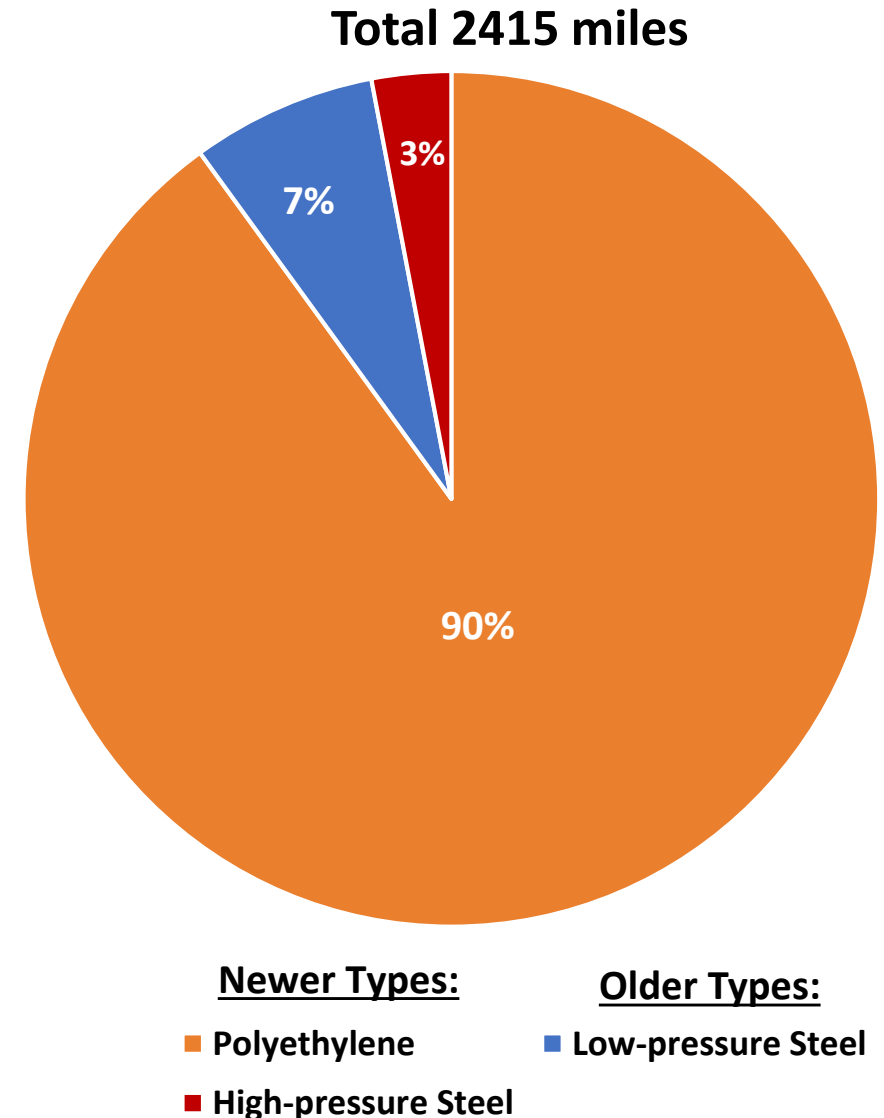
Natural Gas: Focus on Growth

- Pipeline extensions provide customer choice
- Connect To Comfort
 - New customers on existing or nearby mains
 - Turnkey installation for service and appliance
 - KUB crews perform work
 - On-bill financing and rebates



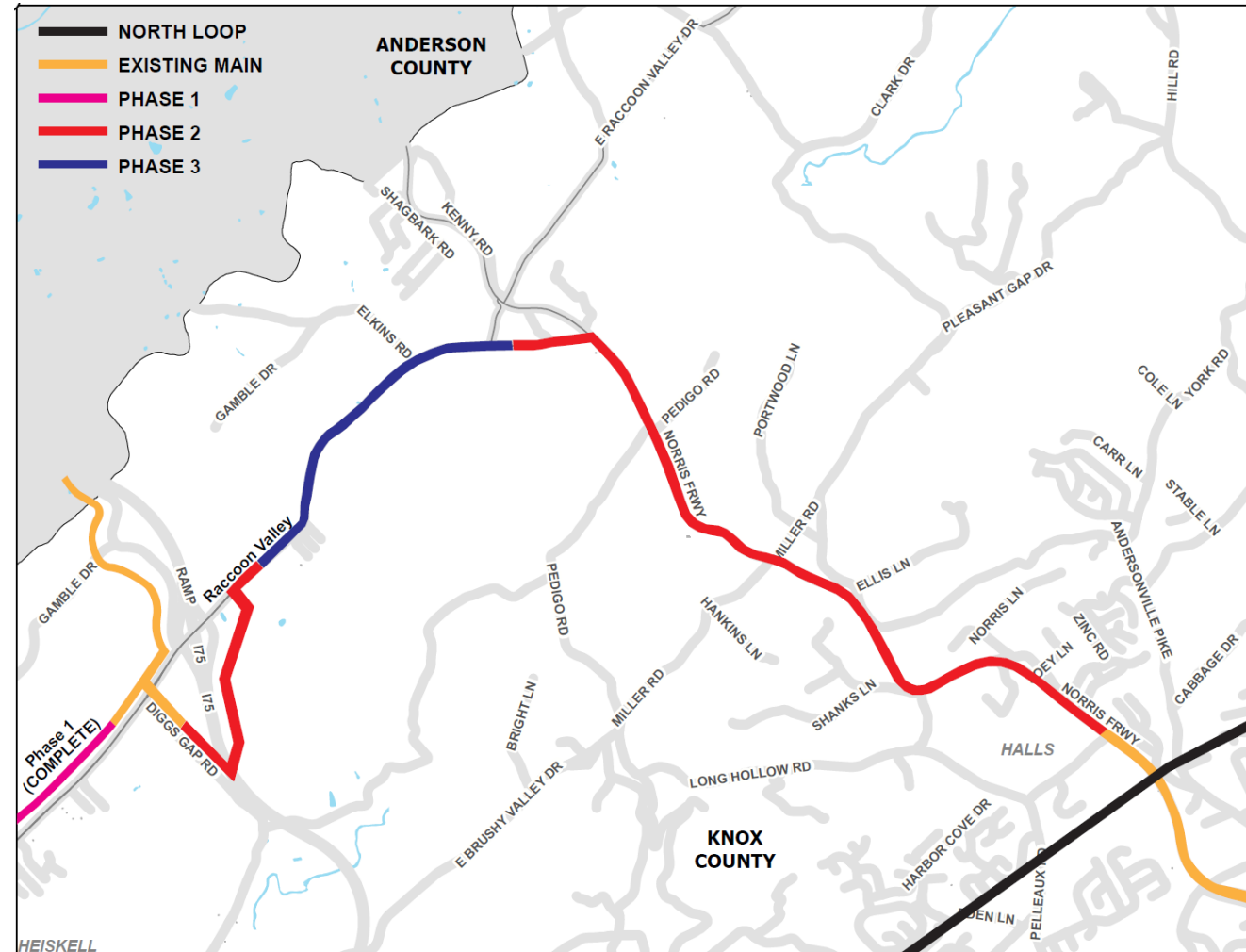
Century II Phasing Out Older Pipe Types

- Newest system
- Cast iron/ductile iron virtually eliminated in 40-year program
- Data analytics prioritize steel pipe replacements



Upcoming Projects and Programs

- Growth Projects
 - Raccoon Valley: \$7.4M
 - Choto Road: \$1M
- System Improvements
 - South Loop Phase 5: \$4.2M
 - John Sevier Highway: \$4.2M
 - Downtown West: \$2.5M
- Gas Master Plan: \$115K
 - Consultant through RFQ
 - Final Report by Fall 2020



Water: Focus on Resiliency

■ Water plant

- Single source of water for community
- Providing dual treatment trains

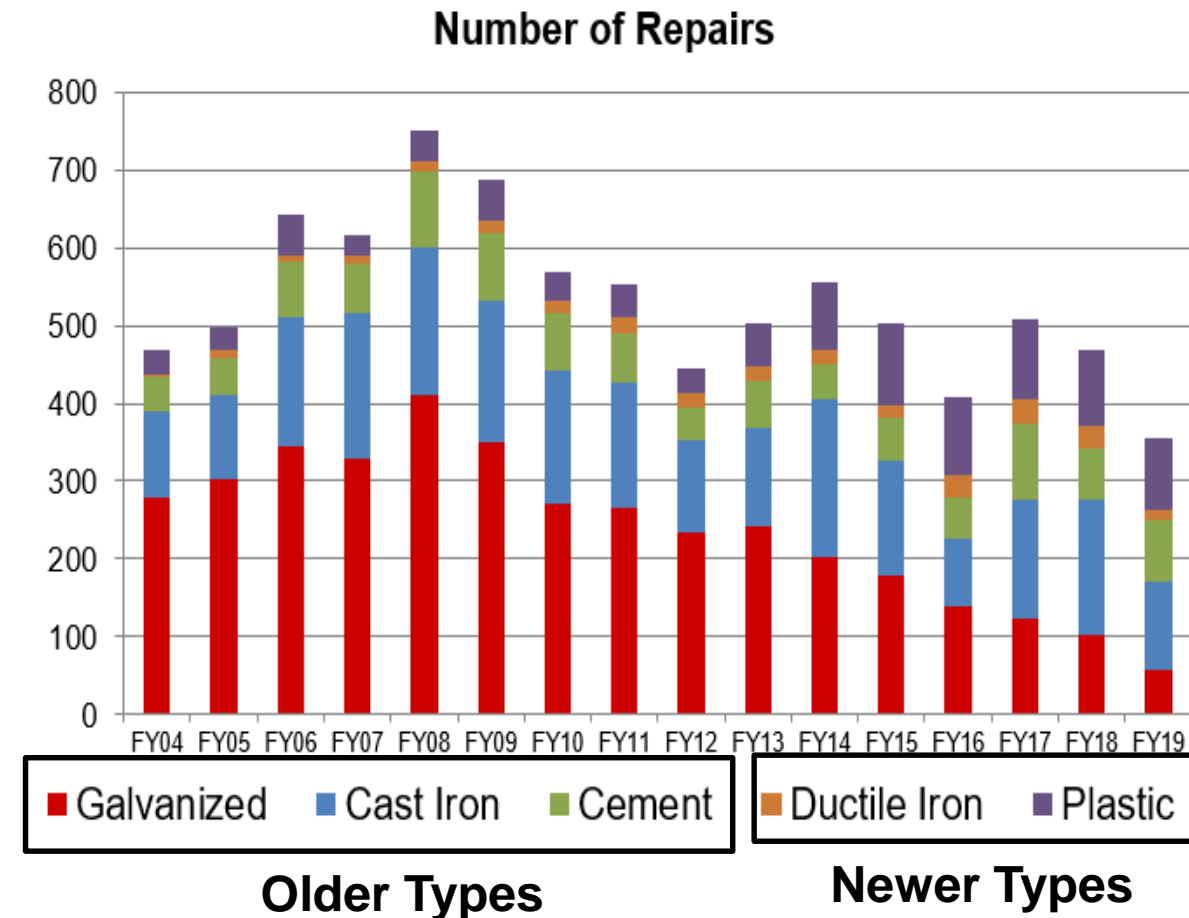
■ Distribution system

- Redundant transmission lines
- Additional pump stations



Century II Reducing Water Main Repairs

- Repairs down 50% since FY 08
- Steady replacement of pipe
 - 190 miles replaced since 2006
 - Galvanized nearly eliminated
 - Reduced older pipe types from 50% of system to 36%
- Extreme weather (cold, rain, drought) increases breaks on older pipe types



Upcoming Projects and Programs

- Water Plant Resiliency
 - Generators: complete in FY 21
 - Filters: \$58M in FY 21-23
- Distribution Resiliency
 - Strawberry Plains Pike Pump Station and transmission main: \$5.5M in FY 20-21
 - Hilton Road Booster Pump Station: \$2.6M in FY 21-23



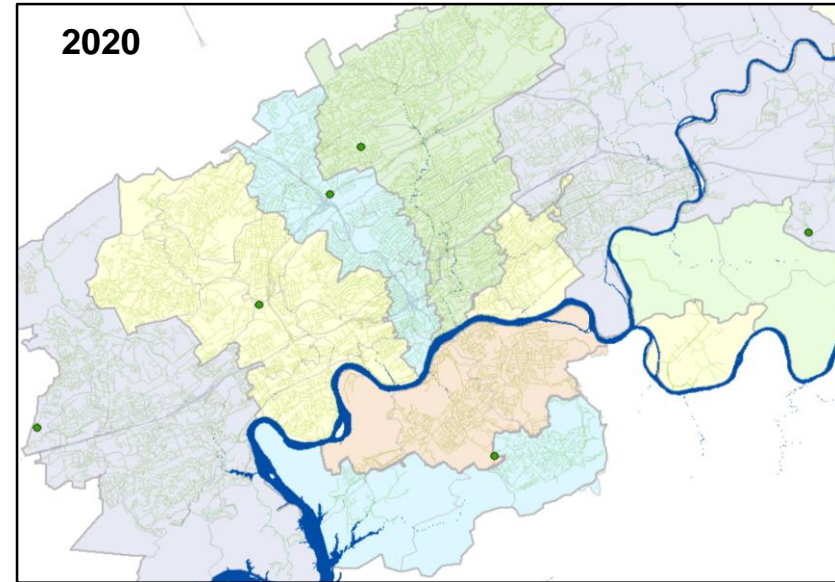
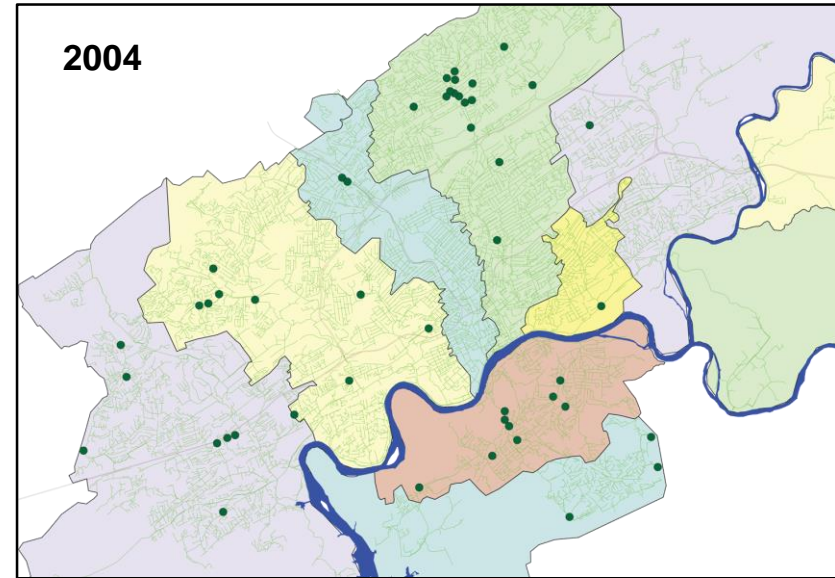
Wastewater: Focus on Sanitary Sewer Overflows (SSOs)

- Wastewater plants
 - Finalizing Consent Decree by June 2021
 - Modernizing treatment disinfection methods
- Collection system
 - Continuing to upgrade lines
 - Expanding and updating pump stations



Century II Reduces SSOs

- Significant reductions in SSOs
- Steady replacement of pipe
 - 400 miles of pipe replaced since 2004
 - Reduced older pipe types from 75% of system to 40%
- 80% of pump stations upgraded
- Installed six new storage tanks



Consent Decree Projects on Target

Due Date	Project	Cost	Status
Dec 2012	Kuwahee WWTP – CCP Phase I	\$51M	✓
Dec 2013	Fourth Creek WWTP – CCP Phase I	\$20M	✓
Dec 2016	134 Collection System Projects	\$530M	✓
June 2018	Fourth Creek WWTP – CCP Phase II	\$5M	✓
June 2021	Kuwahee WWTP – CCP Phase II	\$49M	60%



Upcoming Projects and Programs

- Kuwahee BEHRC: \$49M, complete in FY 21
- Jones Street Pump Station: \$15M in FY 21-22
- Kuwahee, Fourth Creek Disinfection: \$11M in FY 21-24
- Sequoyah Hills Phase 3: \$3.2M in FY 21



Community Involvement



Ijams Nature Center
River Rescue



Natural Gas
Safety Demo

Electric Safety Demo



H2O to Go

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10-Year Financial Plan, FY 21 Rate Actions, and FY 21 Proposed Budget

April 16, 2020



10-Year Financial Plan Summary

- Continued funding for Century II, Water Plant Resiliency, and other key initiatives
- Increased funding for sustainability and energy/water efficiency projects
- O&M and Capital savings
- Eliminated multiple rate increases and deferred others
- Lower debt funding levels
- Reflects \$1.3M of TVA partnership annual credit for Green Invest (solar purchases) and home weatherization
- Proposed FY 21 budget of \$962M

Plan Modifications Due to Pandemic

- Deferred FY 21 water and wastewater rate increases
- Reduced investment returns
- Increased funding for future Pension/OPEB Trust contributions from contingency cash reserves, based on recent market downturn
- Use of remainder of TVA credit deferred pending assessment of Pandemic impacts

FY 21 Rate Recommendations

- No rate increases
- Pilot Time Of Use (TOU) electric rates for residential and business customers
- Purchased Power Adjustment amendments

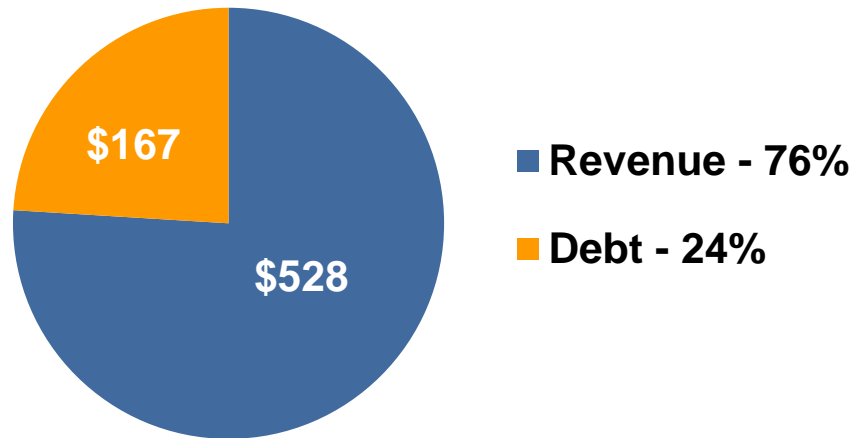
Key Assumptions and Indicators

	Electric	Gas *	Water	Wastewater
Annual Customer Additions	1,700 – 1,750	1,100 – 1,300	375	400
Residential Annual Use	0.7% ↓	0.5% ↓	1% ↓	1% ↓
Interest Rate on New Debt	←————— 3.25% – 5.0% —————→			
Term of New Debt	←————— 30 Years —————→			
Debt Ratio (FY 20)	45% or less	30% or less	50% or less	60% or less
Debt Ratio (By FY 25)	40% or less	25% or less	47.5% or less	53% or less
Debt Ratio (By FY 30)	35% or less	20% or less	40% or less	47% or less
Debt Coverage	3.0 or more	3.0 or more	2.0 or more	1.5 or more

* 6% warmer than normal winter for Gas

Electric Plan Funding Summary

10-Year Capital = \$695 Million



Rate Increase for Consideration

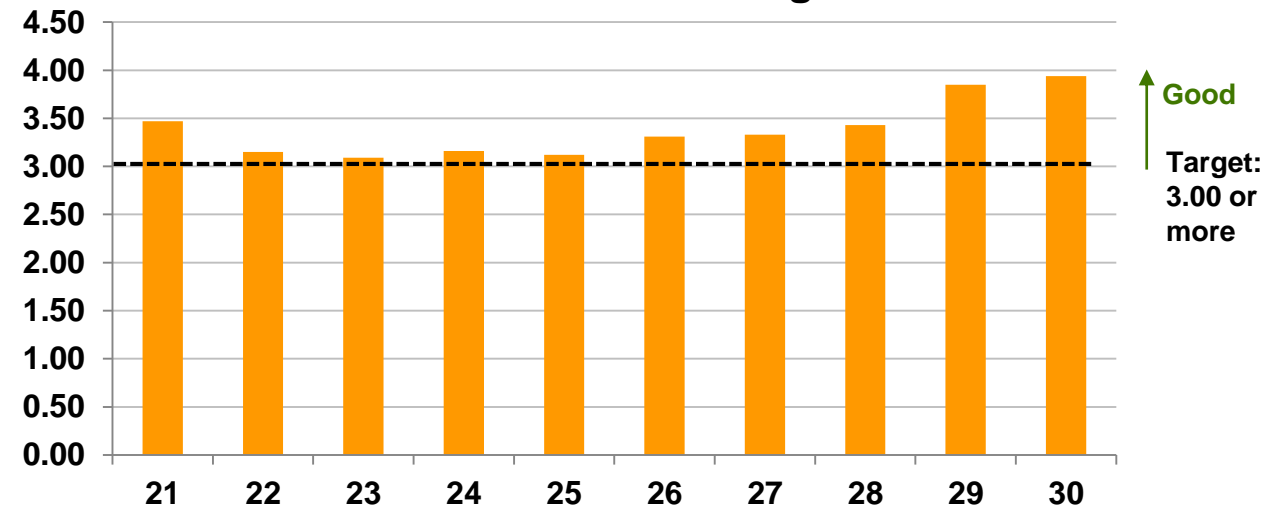
FY 21

Future Projected Rate Increases

FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
---	1%	1%	1%	1%	1%	1%	1%	1%

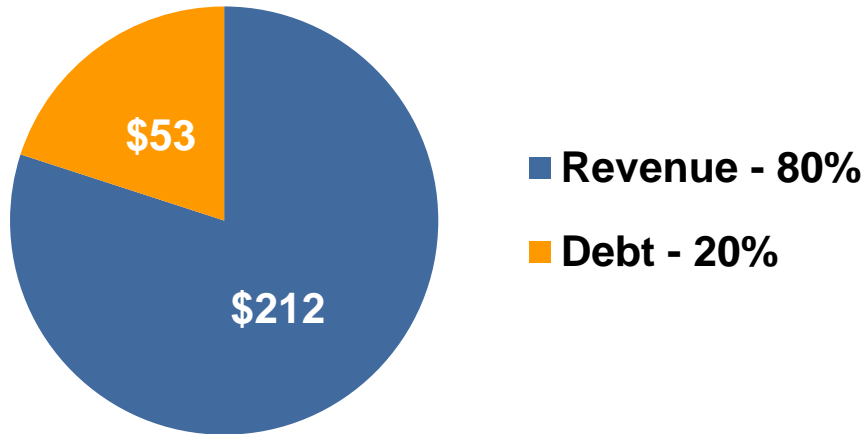
	Electric Bonds	Debt Ratio
July 1, 2020	\$309M	43%
(+) New Bonds	\$102M	
(-) Payments	\$ 83M	
June 30, 2025	\$328M	39%
(+) New Bonds	\$ 65M	
(-) Payments	\$ 87M	
June 30, 2030	\$306M	33%

Debt Service Coverage



Natural Gas Plan Funding Summary

10-Year Capital = \$265 Million



Rate Increase for Consideration

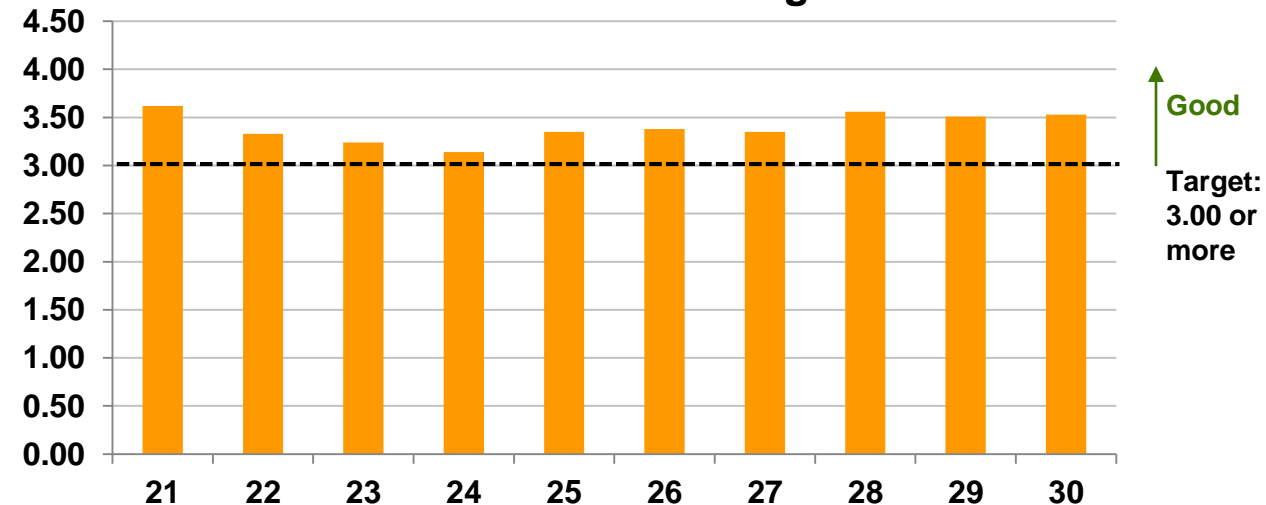
FY 21

Future Projected Rate Increases

FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
---	---	.5%	.5%	.5%	.5%	.5%	.5%	.5%

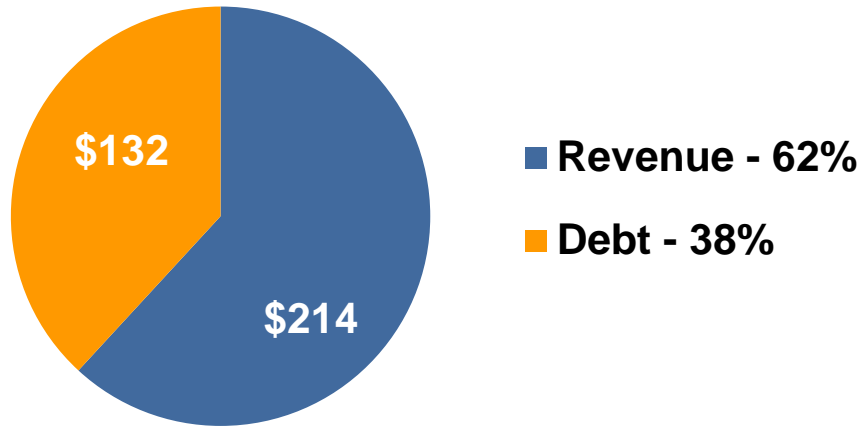
	Gas Bonds	Debt Ratio
July 1, 2020	\$106M	30%
(+) New Bonds	\$ 27M	
(-) Payments	\$ 37M	
June 30, 2025	\$ 96M	24%
(+) New Bonds	\$ 26M	
(-) Payments	\$ 38M	
June 30, 2030	\$ 84M	20%

Debt Service Coverage



Water Plan Funding Summary

10-Year Capital = \$346 Million



Rate Increase for Consideration

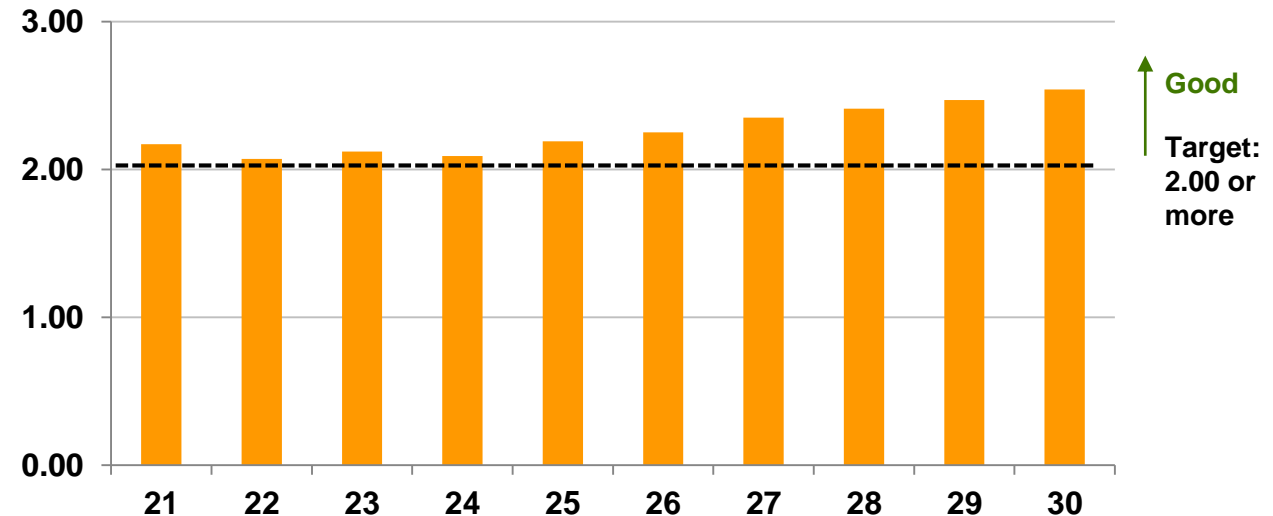
FY 21

Future Projected Rate Increases

FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
5.5%	5.5%	5.5%	5%	5%	5%	5%	5%	5%

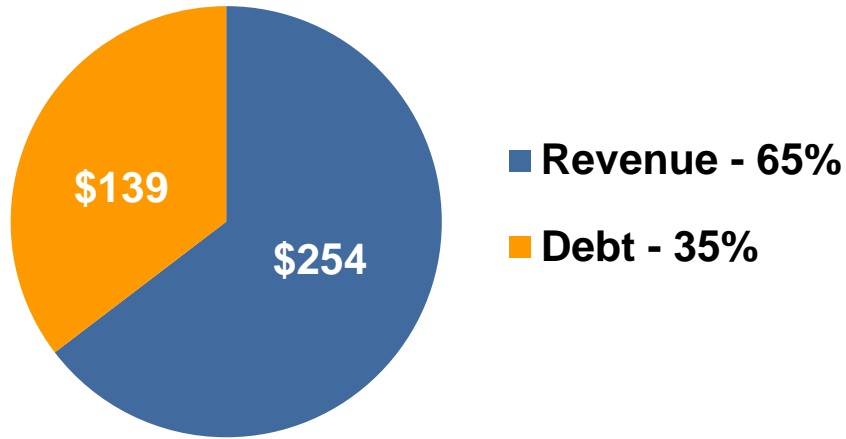
	Water Bonds	Debt Ratio
July 1, 2020	\$207M	50%
(+) New Bonds	\$ 75M	
(-) Payments	\$ 44M	
June 30, 2025	\$238M	48%
(+) New Bonds	\$ 57M	
(-) Payments	\$ 57M	
June 30, 2030	\$238M	40%

Debt Service Coverage



Wastewater Plan Funding Summary

10-Year Capital = \$393 Million



Rate Increase for Consideration

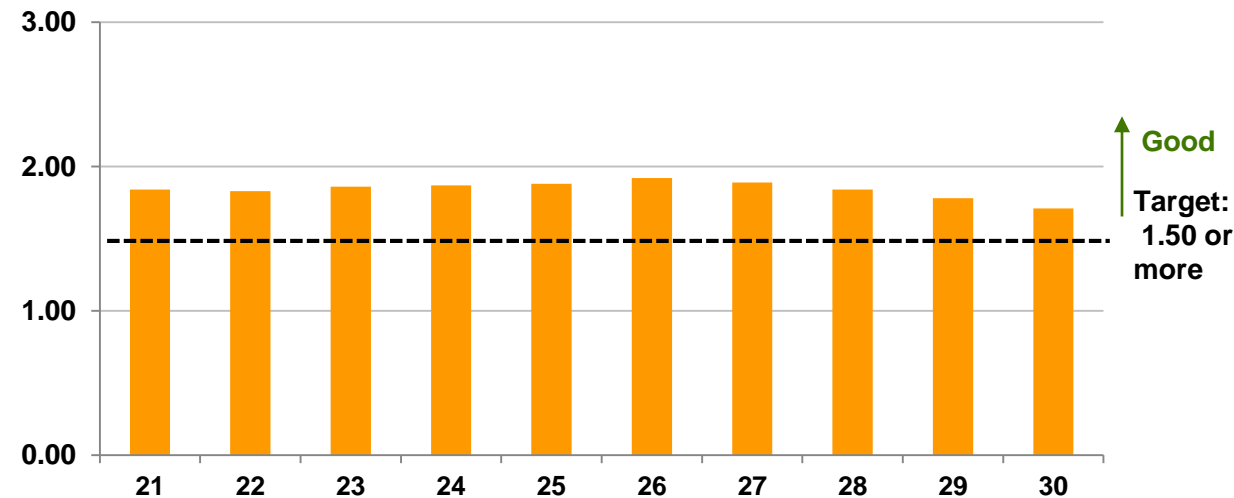
FY 21

Future Projected Rate Increases

FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
3.5%	3.5%	3.5%	2%	2%	2%	1%	1%	1%

	WW Bonds	Debt Ratio
July 1, 2020	\$515M	60%
(+) New Bonds	\$ 71M	
(-) Payments	\$ 88M	
June 30, 2025	\$498M	53%
(+) New Bonds	\$ 68M	
(-) Payments	\$ 99M	
June 30, 2030	\$467M	46%

Debt Service Coverage



Proposed FY 21 Budget: \$962M

	Electric	Gas	Water	WWater	Total
Energy Cost	\$412.7	\$55.1	\$ ---	\$ ---	\$467.8
O&M	\$66.9	\$22.8	\$30.1	\$38.4	\$158.2
Capital	\$75.9	\$32.0	\$44.6	\$58.6	\$211.1
Debt Service	\$24.9	\$10.5	\$14.9	\$35.6	\$85.9
Taxes and Equivalents	\$20.3	\$8.3	\$4.6	\$5.9	\$39.1
\$ in Millions	\$600.7	\$128.7	\$94.2	\$138.5	\$962.1

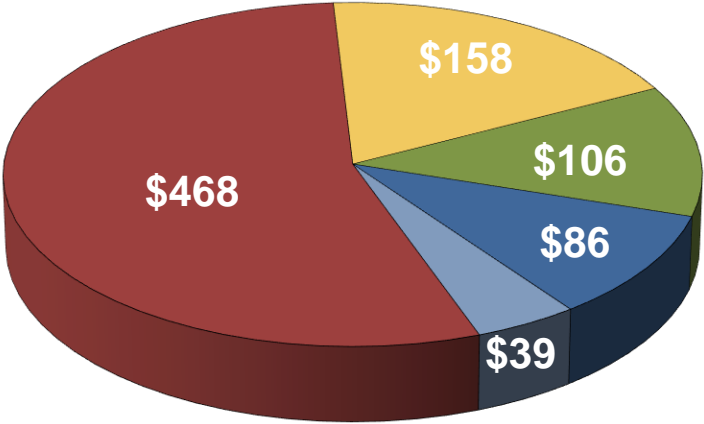
Proposed FY 21 Budget Down Slightly

	FY 21	FY 20	Increase	
	Proposed	Budget	(Decrease)	
Energy Cost	\$467.8	\$481.6	(\$13.8)	Lower wholesale energy prices
O&M	\$158.2	\$145.8	\$12.4	Energy/water efficiency initiatives
				Vegetation management; Pension/OPEB
Capital	\$211.1	\$210.9	\$0.2	
Debt Service	\$85.9	\$86.2	(\$0.3)	Lower interest rates
Taxes & Equivalents	\$39.1	\$39.8	(\$0.7)	Knox County property tax equalization rate
	\$962.1	\$964.3	\$(2.2)	

\$ in Millions

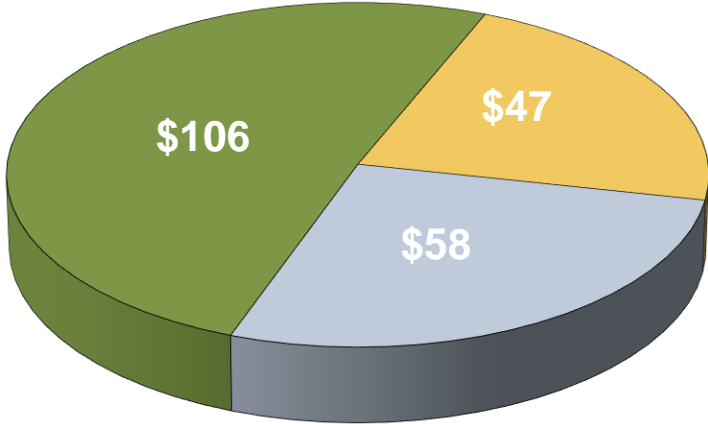
Funding FY 21 Budget: \$962M

Revenue = \$857M



- Wholesale Energy = 55%
- O&M = 18%
- Capital = 12%
- Debt Service = 10%
- Taxes and Equivalents = 5%

Capital = \$211M



- System Revenues = 50%
- Bond Proceeds = 22%
- General Fund Cash = 28%

May 2020 Board Meeting: Official Action

- FY 21 budget appropriations
- FY 21 commitment appropriations
- \$47M revenue bonds
 - \$17M water
 - \$30M wastewater
- Pilot TOU electric rates
- Purchased Power Adjustment amendments
- Housekeeping changes on rate schedules

Pandemic Adjustments Will Continue

- Economic impacts
 - Customer bills
 - Loss of revenue to fund operations
 - Uncertainty in municipal bond market
- Mitigation strategies
 - Slowing down capital work
 - Use of contingency cash reserves

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