KUB
Knoxville Utilities Board

Consolidated

Financial Statements and Supplemental Information
June 30, 2019 and 2018

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Operations

Knoxville Utilities Board
Index
June 30, 2019 and 2018

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Independent Auditor's Report

Board of Commissioners
Knoxville Utilities Board
Knoxville, Tennessee

We have audited the accompanying financial statements of the Knoxville Utilities Board (KUB), a component unit of the City of Knoxville, Tennessee, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise KUB's basic financial statements as listed in the index.

Management's Responsibility for the Financial Statements

KUB's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to KUB's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of KUB's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of KUB as of June 30, 2019 and 2018, and the changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 27 and the required supplementary information on pages 70 through 74 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise KUB's basic financial statements. The supplemental information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplemental information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2019, on our consideration of KUB's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering KUB's internal control over financial reporting and compliance.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions including setting rates. KUB's accounts are maintained in conformity with the Uniform System of Accounts of the Federal Energy Regulatory Commission (FERC), the Uniform System of Accounts of the National Association of Regulatory Utility Commissioners (NARUC), and the Governmental Accounting Standards Board (GASB), as applicable.

This discussion and analysis is designed to (a) assist the reader in focusing on significant financial issues, (b) provide an overview of KUB's financial activity, (c) identify major changes in KUB's financial position, and (d) identify any financial concerns.

The Management Discussion and Analysis (MD&A) focuses on the fiscal year ending June 30, 2019 activities, resulting changes and current known facts, and should be read in conjunction with KUB's consolidated financial statements.

Consolidated Highlights

System Highlights

As of June 30, 2019, KUB served 464,637 customers. KUB added 4,840 new customers in fiscal year 2019, representing growth of one percent.

KUB's utility systems were impacted by record rainfall in fiscal year 2019, including record-setting rainfall and widespread flooding in February 2019. Electric system reliability was affected, resulting in 2.42 hours of service interruption for the average customer. KUB expects to receive reimbursements in fiscal year 2020 from the Federal Emergency Management Agency (FEMA) to partially offset the cost of the 2019 storm and flood event.

In mid-December 2018, East Tennessee Natural Gas (subsidiary Enbridge), experienced an incident on a section of natural gas transmission pipeline in Smith County that led to KUB working with interruptible natural gas customers on usage curtailment as well as encouraging the public to voluntarily conserve. Though service to residential customers was sustained during the pipeline event, interruptible customers were curtailed for a two-week period, affecting consumption and revenue from these customers.

KUB's energy sales in fiscal year 2019 were impacted by a milder winter in Knoxville. Natural gas sales decreased 5.6 percent from the prior year, while electric sales decreased one percent.

KUB's electric system's record peak in demand remains 1,328 megawatt hours, set in February 2015. The natural gas system's peak demand occurred January 2018 at 140,204 dekatherms.

The second of three-annual rate increases for each Division previously adopted by the KUB Board went into effect in fiscal year 2019. These rate increases provide additional revenue to help fund each system's respective Century II infrastructure program.

KUB's electric system maintains a Diamond level designation by the American Public Power Association's (APPA) Reliable Public Power Provider (RP3) program, the highest level of recognition of the program.
KUB's natural gas system was named to the American Public Gas Association's (APGA) System Operational Achievement Recognition (SOAR) Program in 2018, reflecting KUB's focus on system integrity,

continuous improvement, safety and employee development. KUB is a Silver level winner and remains a member of the program through 2020.

KUB's treatment plants continue to meet high standards of operation. KUB's Loves Creek wastewater treatment plant was awarded an Operational Excellence award from the Tennessee Kentucky Water Environment Association for the 2018 calendar year. The treatment plants additionally won awards at various levels based on performance from the National Association of Clean Water Agencies for peak performance. Loves Creek, Eastbridge, and Fourth Creek wastewater treatment plants won silver awards for calendar year 2018.

KUB continued to maintain Platinum certification with the National Biosolids Partnership following a rigorous review process and independent audit that was conducted in December 2018. (Biosolids are nutrient-rich organic matter produced by wastewater treatment and is a registered fertilizer with the Tennessee Department of Agriculture).

Century II Infrastructure Program

Century II is KUB's proactive long-range program to improve and maintain the electric, natural gas, water and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In fiscal year 2015, KUB concluded the smart grid pilot project, of which a portion of the project was funded by a United States Department of Energy Smart Grid Investment Grant (SGIG). This grant was received by KUB in 2009 as part of the American Reinvestment and Recovery Act (ARRA). Based upon the success of that pilot, KUB formed a plan to move forward with a Century II Grid Modernization initiative, which includes advanced metering for all KUB customers, a telecommunication system linking critical KUB infrastructure, and an increased investment in automation technology to help operate KUB's energy and water distribution systems. Over the course of ten years, KUB plans to spend $124.4 million in this effort. The deployment is funded in large part by debt issues and system revenues. As of June 30, 2019, KUB completed the third year of the four-year advanced meter deployment. KUB replaced approximately 75 percent of its electric meters, installed network communication devices on 79 percent of its gas meters, and replaced 83 percent of its water meters, spending approximately $64.9 million on the Grid Modernization deployment.

In June 2017, the Board adopted the next three annual rate increases for all KUB Divisions. The first two of the three approved electric rate increases went into effect in October 2017 and October 2018, generating $10.9 million and $11.2 million in additional annual revenue, respectively. The remaining rate increase is effective in October 2019 and is expected to provide an additional $5.7 million in annual revenue to assist with the funding of the Electric Division. The first two of the three approved gas rate increases went into effect in October 2017 and October 2018, generating $2.2 million and $2.3 million in additional annual revenue, respectively. The remaining rate increase is effective in October 2019 and is expected to provide an additional $2.3 million in annual revenue to assist with the funding of the Gas Division. The first two of three water rate increases went into effect July 2017 and July 2018 generating $3.1 million of additional annual Water Division revenue each. The remaining rate increase is effective in July 2019 and is expected to provide an additional $3.3 million in annual revenue to help fund the Water Division. The first two of the three approved wastewater rate increases went into effect in July 2017 and July 2018, generating $4.3 million and $4.2 million in additional annual revenue, respectively. The remaining rate increase is effective in July 2019 and is expected to provide an additional $4.5 million in annual revenue to assist with the funding of the Wastewater Division.

In fiscal year 2017, KUB completed the transition to a new disinfection system at the Mark B. Whitaker (MBW) Water Treatment plant.

KUB is currently in the process of implementing a Water Plant Redundancy initiative to ensure that high quality, reliable water service will be provided to customers over the long term. KUB maintains a single water treatment plant for its system. In lieu of building a second treatment facility to ensure capacity will be available to meet the needs of current and future water customers, KUB will invest approximately $149 million in various redundant facilities at the site of its existing Mark B. Whitaker Water Treatment Plant over a 14-year period that began in fiscal year 2017.

For the fiscal year, KUB stayed on track with its overall Century II capital budget and production goals. The electric system replaced 2,457 poles and 18.9 miles of underground electric cable. In the natural gas system, 12.1 miles of gas steel main were replaced. In the water system, 5.6 miles of galvanized water main and 4.1 miles of cast iron water main were replaced. In the wastewater system, 16.9 miles of main were rehabilitated or replaced.

Consent Decree

In February 2005, a Consent Decree was entered into federal court regarding the operation of KUB's wastewater system. Under the terms of the Consent Decree, the remediation of identified sanitary sewer overflows (SSOs) on KUB's wastewater system had to be completed by June 30, 2016. KUB completed all the requirements of the Consent Decree for the collection system two years in advance of the deadline.

The Consent Decree also required KUB to perform an evaluation of the wet weather performance and capacity of its wastewater treatment plants. In July 2007, KUB submitted a Composite Correction Plan (CCP) for its wastewater treatment plants to EPA for review. The development and filing of the CCP was a requirement of the federal order of February 2005. The CCP includes recommended improvements to KUB's Kuwahee and Fourth Creek treatment plants to address wet weather capacity issues noted in prior assessments. The EPA approved the CCP in January 2009 including a recommended schedule of plant improvements that extends beyond the expiration date of the original Consent Decree. An amendment to the Consent Decree incorporating and establishing this schedule was agreed to by all parties and was entered on June 23, 2009. The purpose of the Amendment is to allow KUB to complete a portion of work outlined in the CCP after the Consent Decree deadline of June 30, 2016. The CCP provides for a biologically enhanced high-rate clarification (the BEHRC) secondary treatment system to be installed at the Fourth Creek treatment plant by June 30, 2018 and at the Kuwahee treatment plant by June 30, 2021. KUB successfully completed the installation of the BEHRC system at the Fourth Creek treatment plant ahead of schedule in April 2018. Work is currently ongoing at the Kuwahee treatment plant and remains on schedule for completion before the deadline of June 30, 2021. The total cost of such improvements at the Kuwahee treatment plant is estimated to be approximately $50 million.

KUB's funding plan for the Consent Decree includes long-term bonds and a series of rate increases phased in over the term of the order. Bond proceeds fund all types of wastewater capital projects, the majority of which are related to the Consent Decree. As of June 30, 2019, the Wastewater Division had issued $542 million in bonds to fund wastewater system capital improvements since the inception of the Consent Decree. The Board approved two 50 percent rate increases, which went into effect in April 2005 and January 2007. The Board also approved an 8 percent rate increase, which was effective in September 2008, two 12 percent rate increases, which were effective in April 2011 and October 2012, three 6 percent rate increases which were effective October 2014, October 2015 and October 2016 and three 5 percent rate increases effective July 2017, July 2018, and July 2019. KUB anticipates additional bond issues and rate increases over the next decade to help fund wastewater capital improvements.

KUB successfully completed the first cycle of Maintenance Operation Management (MOM) requirements one year before the deadline by inspecting manholes and gravity mains, smoke testing gravity mains, performing required inspections of pump stations and the related force mains, and completing all Corrective Action Plan/Engineering Report (CAP/ER) projects. KUB initiated the second MOM cycle that continues to focus on the prevention of SSOs. As part of the Century II initiative, formally known as the PACE10 program, KUB has installed storage tanks providing 34 million gallons of wastewater storage to control wet weather overflows and rehabilitated or replaced approximately 385.7 miles of collection system pipe. KUB also continues to maintain a proactive operations and maintenance plan for the wastewater collection system including inspection, grease control, and private lateral enforcement. The result of the PACE10/Century II initiative has been an 80 percent reduction in SSOs.

As of June 30, 2019, the Wastewater Division had completed its 15th full year under the Consent Decree, spending $545.6 million on capital investments to meet Consent Decree requirements.

Financial Highlights

Fiscal Year 2019 Compared to Fiscal Year 2018

KUB's consolidated Change in Net Position increased $65.3 million in fiscal year 2019. Comparatively, net position increased by $63.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by an additional $4.5 million. The change resulted in a total increase of $68.1 million in KUB's net position.

Operating revenue decreased $0.2 million, the net result of additional revenues from system rate increases and a decline in billed sales volumes. Purchased energy expense (power and natural gas) decreased $14.5 million or 3 percent, the combined effect of an $8.1 million decrease in purchased power cost and a decrease of $6.4 million in purchased gas cost, reflecting lower customer demand. Margin from sales (operating revenue less purchased energy expense) increased $14.3 million or 4.2 percent compared with the prior fiscal year.

Operating expenses (excluding purchased power and purchased gas expense) increased $16.1 million. Operating and maintenance (O&M) expenses were $17.2 million or 13.9 percent higher than the previous year. Depreciation expense decreased $2.9 million or 3.8 percent. Taxes and tax equivalents increased $1.8 million or 5.2 percent, reflecting higher plant in service levels.

Interest income was $2.6 million more than the prior fiscal year. Interest expense increased $1.6 million or 3.9 percent, reflecting the interest costs on new revenue bonds issued during fiscal year 2019 to fund system capital improvements.

Capital contributions increased $0.6 million, the result of a higher level of assets contributed by developers.

Total plant assets (net) increased $122.2 million or 6.4 percent over the last fiscal year.

Long-term debt represented 50.2 percent of KUB's consolidated capital structure, compared to 50.8 percent last fiscal year. Capital structure equals long-term debt (including the current and long-term portion of revenue bonds and notes), plus net position.

Fiscal Year 2018 Compared to Fiscal Year 2017

KUB's consolidated Change in Net Position increased $63.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by an additional $4.5 million. The change resulted in a total increase of $68.1 million in KUB's net position. Comparatively, net position increased by $36.1 million in fiscal year 2017.

Operating revenue increased $46 million or 6 percent, the result of additional revenues from system rate increases and a 20.8 percent increase in natural gas sales volumes. Purchased energy expense (power and natural gas) increased $16.4 million or 3.6 percent, the combined effect of a $4.1 million increase in purchased power cost and an increase of $12.3 million in purchased gas cost, reflecting higher base wholesale TVA rates and customer demand. Margin from sales (operating revenue less purchased energy expense) was up $29.6 million or 9.6 percent compared with the prior fiscal year.

Operating expenses (excluding purchased power and purchased gas expense) increased $0.1 million. Operating and maintenance (O&M) expenses were $6.5 million or 5 percent lower than the previous year. Depreciation expense increased $5.6 million or 7.8 percent. Taxes and tax equivalents increased $1 million or 3 percent, reflecting higher plant in service levels.

Interest income was $1.9 million more than the prior fiscal year. Interest expense increased $1.5 million or 3.7 percent, reflecting the interest costs on new revenue bonds issued during fiscal year 2018 to fund system capital improvements offset by savings on refunding of outstanding bonds.

Capital contributions decreased $1.5 million, the result of less assets contributed by developers.

Total plant assets (net) increased $72.7 million or 4 percent over the last fiscal year.

Long-term debt represented 50.8 percent of KUB's consolidated capital structure, compared to 51 percent last fiscal year. Capital structure equals long-term debt (including the current and long-term portion of revenue bonds and notes), plus net position.

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Knoxville Utilities Board Consolidated Financial Statements

KUB's financial performance is reported under three basic consolidated financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows.

Statement of Net Position

KUB reports its assets, deferred outflows of resources, liabilities, deferred inflows of resources and net position in the Statement of Net Position. Assets are classified as current, restricted, plant in service, or other assets.

Liabilities are classified as current, other, or long-term debt. Net position is classified as net investment in capital assets, restricted, or unrestricted. Net position tells the user what KUB has done with its accumulated earnings, not just the balance.

Net investment in capital assets reflects the book value of all capital assets less the outstanding balances of debt used to acquire, construct, or improve those assets.

Restricted net position includes assets that have been limited to specific uses by KUB's bond covenants or through resolutions passed by the KUB Board.

Unrestricted net position is a residual classification; the amount remaining after reporting net position as either invested in capital or restricted is reported there.

Statement of Revenues, Expenses and Changes in Net Position

KUB reports its revenues and expenses (both operating and non-operating) on the Statement of Revenues, Expenses and Changes in Net Position. In addition, any capital contributions or assets donated by developers are reported on this statement.

Total revenue less total expense equals the change in net position for the reporting period. Net position at the beginning of the period is increased or decreased, as applicable, by the change in net position for the reporting period.

The change in net position for the reporting period is added to the net position segment of the Statement of Net Position.

Statement of Cash Flows

KUB reports cash flows from operating activities, capital and related financing activities, and investing activities on the Statement of Cash Flows. This statement tells the user the sources and uses of cash during the reporting period.

The statement indicates the beginning cash balance and ending cash balance and how it was either increased or decreased during the reporting period.

The statement also reconciles cash flow to operating income as it appears on the Statement of Revenues, Expenses and Changes in Net Position.

Condensed Financial Statements

Statement of Net Position

The following table reflects the condensed consolidated Statement of Net Position for KUB compared to the prior two fiscal years.

Statements of Net Position
As of June 30

(in thousands of dollars)	2019	2018	2017
Current, restricted and other assets	$ 389,851	$ 424,562	$ 350,320
Capital assets, net	2,020,169	1,897,995	1,825,293
Deferred outflows of resources	41,209	25,544	33,495
Total assets and deferred outflows of resources	2,451,229	2,348,101	2,209,108
Current and other liabilities	180,241	169,966	167,533
Long-term debt outstanding	1,135,027	1,097,096	1,037,622
Deferred inflows of resources	3,843	14,259	5,268
Total liabilities and deferred inflows of resources	1,319,111	1,281,321	1,210,423
Net position			
Net investment in capital assets	871,180	794,383	786,361
Restricted	21,294	19,436	17,977
Unrestricted	239,644	252,961	194,347
Total net position	$ 1,132,118	$ 1,066,780	$ 998,685

Normal Impacts on Statement of Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Net Position presentation.

- Change in net position (from Statement of Revenues, Expenses and Changes in Net Position): impacts (increase/decrease) current and other assets and/or capital assets and unrestricted net position.
- Issuing debt for capital: increases deferred outflows of resources and long-term debt.
- Spending debt proceeds on new capital: reduces current assets and increases capital assets.
- Spending of non-debt related current assets on new capital: (a) reduces current assets and increases capital assets and (b) reduces unrestricted net position and increases net investment in capital assets.
- Principal payment on debt: (a) reduces current and other assets and reduces long-term debt and (b) reduces unrestricted net position and increases net investment in capital assets.
- Reduction of capital assets through depreciation: reduces capital assets and net investment in capital assets.

Impacts and Analysis

Current, Restricted and Other Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Current, restricted and other assets decreased $34.7 million or 8.2 percent. This decrease reflects a decrease in the actuarially determined net pension asset of $19.8 million, an $11.6 million decrease in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments) and a decrease in accounts receivable of $5.4 million. KUB under recovered $1.3 million in wholesale gas costs from its customers in fiscal year 2019. This under recovery of costs will be charged to KUB's gas customers during the next fiscal year through adjustments to rates via the Purchased Gas Adjustment.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current, restricted and other assets increased $74.2 million or 21.2 percent. This increase reflects a $36.8 million increase in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments), an increase in the actuarially determined net pension asset of $19.7 million, an increase in accounts receivable of $7.7 million, an increase of $5.3 million in operating contingency reserves and an increase in inventories of $4.7 million. Fiscal year 2017's $3.8 million under recovery of wholesale gas costs was collected from customers in fiscal year 2018 through adjustments to rates via the Purchased Gas Adjustment.

Capital Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Capital assets (net) increased $122.2 million or 6.4 percent. Major capital expenditures (reflected in both plant additions and work in progress) in fiscal year 2019 included $42.9 million related to wastewater Century II projects, $29.5 million for various electric distribution system improvements, $16.8 million for building improvements, $14.1 million for Grid Modernization and advanced metering, including Supervisory Control and Data Acquisition (SCADA) system upgrades, $11.3 million for water plant and system improvements, $10.3 million for pole replacements for the electric system, and $8.3 million for utility asset replacements and relocations for the gas and water system to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects.

Fiscal Year 2018 Compared to Fiscal Year 2017

Capital assets (net) increased $72.7 million or 4 percent. Major capital expenditures (reflected in both plant additions and work in progress) in fiscal year 2018 included $31.3 million for various electric distribution system improvements, $26.7 million related to wastewater Century II projects, $12.4 million for water plant and system improvements, $10.1 million for Grid Modernization and advanced metering, including Supervisory Control and Data Acquisition (SCADA) system upgrades, $8.9 million for utility asset replacements and relocations for the gas and water system to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects and $8.6 million for pole replacements for the electric system.

Deferred Outflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred outflows of resources increased $15.7 million compared to the prior year, reflecting an increase in pension outflow of $15.3 million and a $1.8 million increase in OPEB outflow offset by a $1.5 million decrease in unamortized bonds refunding costs when compared to the prior fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred outflows of resources decreased $8 million compared to the prior year, reflecting a decrease in pension outflow of $7.1 million and a $1.5 million decrease in unamortized bonds refunding costs offset by a $0.7 increase in OPEB outflow when compared to the prior fiscal year.

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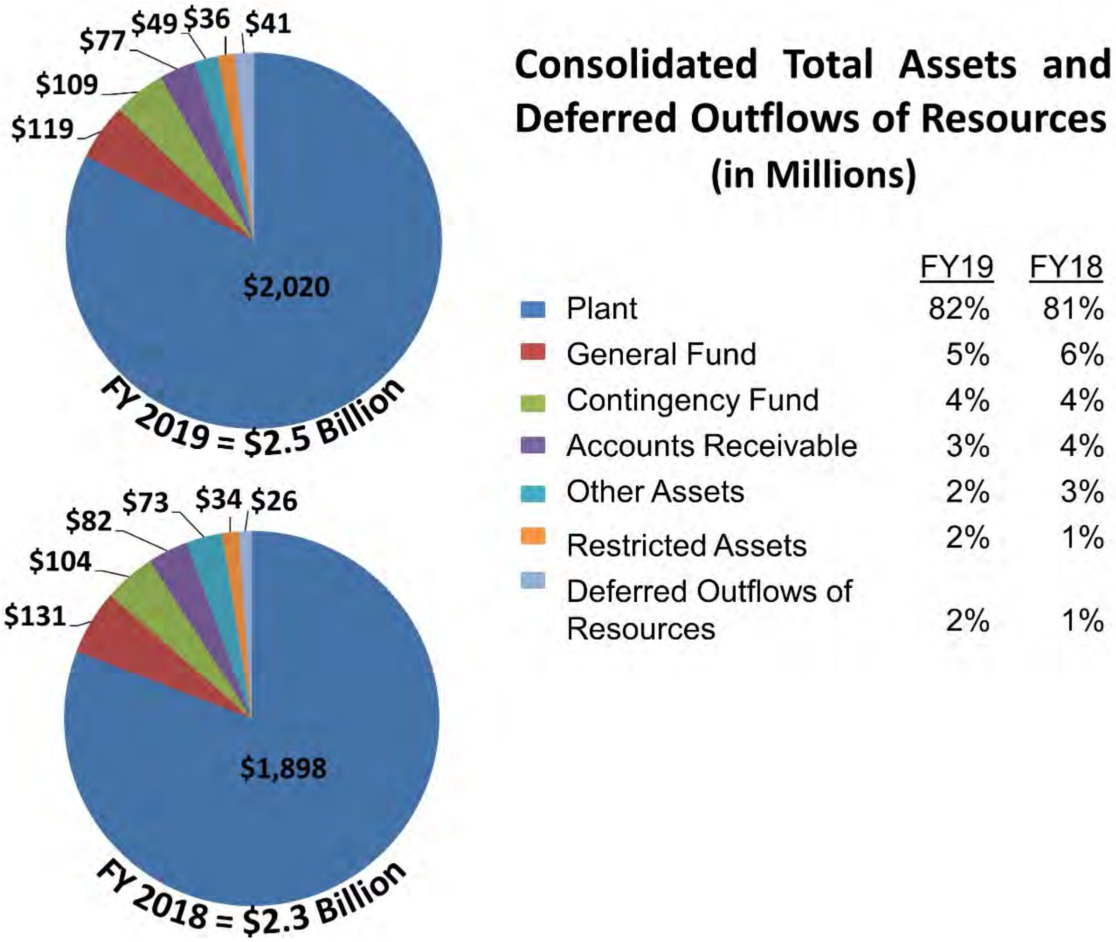

Current and Other Liabilities

Fiscal Year 2019 Compared to Fiscal Year 2018

Current and other liabilities increased $10.3 million or 6 percent compared to the prior fiscal year. This reflects an increase of $6.6 million in net pension liability, an increase of $3.2 million in customer advances for construction and an increase in the current portion of revenue bonds of $3.1 million. KUB over recovered $2.7 million in wholesale power costs from its customers in fiscal year 2019, as compared to a $4.7 million over recovery in fiscal year 2018. This over recovery of costs will be flowed back to KUB's electric customers during the next fiscal year through adjustments to rates via the Purchased Power Adjustment.

The outstanding balance on TVA conservation loans declined by $1.3 million, as KUB ceased issuance of any new loans in fiscal year 2016.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current and other liabilities increased $2.4 million or 1.5 percent compared to the prior fiscal year. This reflects an increase in the current portion of revenue bonds of $2.8 million, an increase of $1.7 million in accrued expenses, an increase of $1.6 million in customer advances for construction and an increase in accrued interest on revenue bonds of $1.1 million. KUB over recovered $4.7 million in wholesale power costs from its customers in fiscal year 2018, as compared to a $4 million over recovery in fiscal year 2017. This over recovery of costs will be flowed back to KUB's electric customers during the next fiscal year through adjustments to rates via the Purchased Power Adjustment. KUB over recovered $1.5 million in wholesale gas costs from its customers in fiscal year 2018, as compared to an under recovery in fiscal year 2017. This over recovery of costs will be flowed back to KUB's gas customers during the next fiscal year through adjustments to rates via the Purchased Gas Adjustment.

These increases were offset by a decline in accounts payable of $5.6 million. The outstanding balance on TVA conservation loans declined by $1.8 million, as KUB ceased issuance of any new loans in fiscal year 2016.

Long-term Debt

Fiscal Year 2019 Compared to Fiscal Year 2018

Long-term debt increased $37.9 million or 3.5 percent. Revenue bonds totaling $80 million were sold in August 2018 and were offset by the scheduled repayment of debt. During the fiscal year, $37.9 million of bond debt was repaid, which included principal payments from the August 2018 revenue bond issuance.

Fiscal Year 2018 Compared to Fiscal Year 2017

Long-term debt increased $59.5 million or 5.7 percent. Revenue bonds totaling $97 million were sold in August 2017 and were offset by the scheduled repayment of debt and bond refunding issuances. During the fiscal year, $34.7 million of bond debt was repaid, which included principal payments from the August 2017 revenue bond issuance.

Deferred Inflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred inflows decreased $10.4 million compared to the prior fiscal year primarily due to differences in pension inflows.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred inflows increased $9 million compared to the prior fiscal year primarily due to differences in pension inflows.

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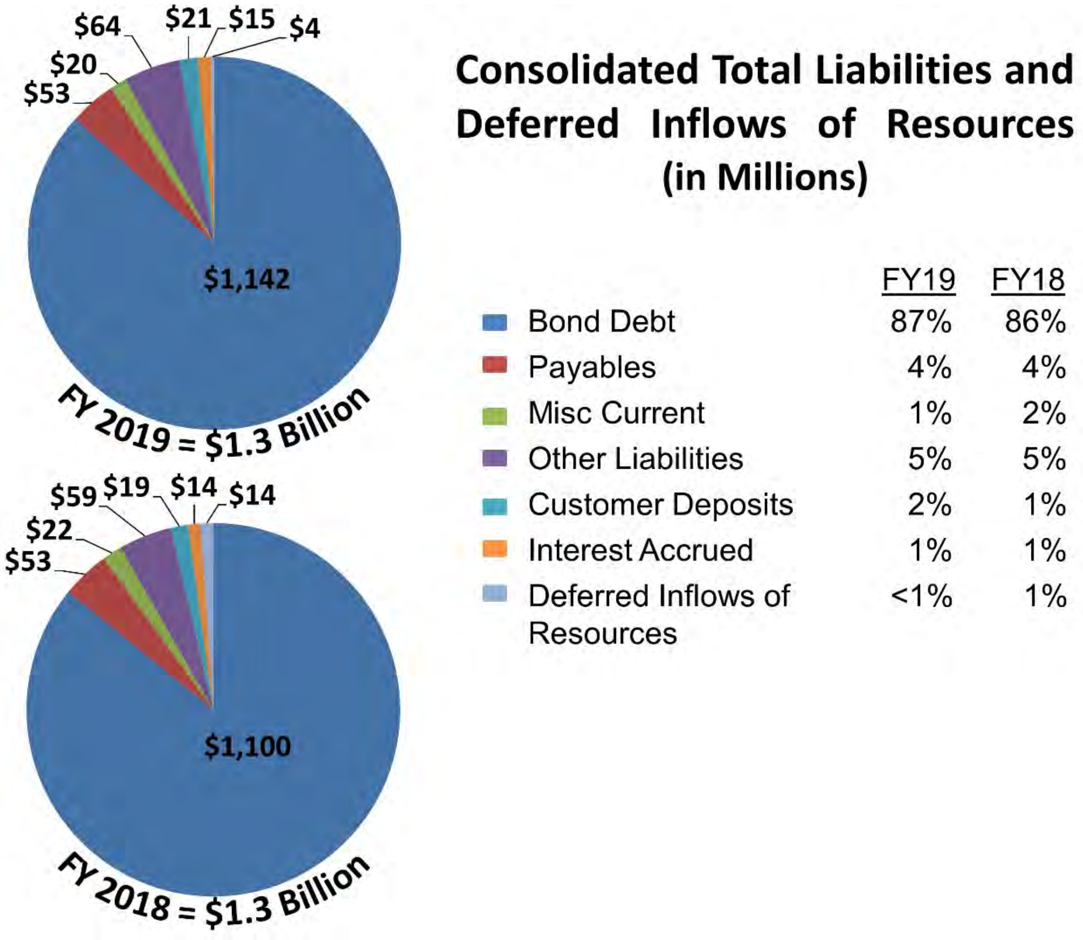

Consolidated Total Liabilities and Deferred Inflows of Resources (in Millions)

	FY19	FY18
🟦 Bond Debt	87%	86%
🟥 Payables	4%	4%
🟩 Misc Current	1%	2%
🟪 Other Liabilities	5%	5%
🟦 Customer Deposits	2%	1%
🟧 Interest Accrued	1%	1%
🟦 Deferred Inflows of Resources	<1%	1%

Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

Unrestricted net position decreased $13.3 million or 5.3 percent compared to the previous fiscal year, partially due to an $11.6 million decrease in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments). Net investment in capital assets increased $76.8 million or 9.7 percent, the result of net capital assets increasing $122.2 million and a $41.1 million increase in current portion of revenue bonds and total long-term debt. Restricted net position increased $1.9 million compared to the prior year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Unrestricted net position increased $58.6 million or 30.2 percent compared to the previous fiscal year, reflecting a $36.8 million increase in general fund cash. Net investment in capital assets increased $8 million or 1 percent, the result of net capital assets increasing $72.7 million and a $62.3 million increase in current portion of revenue bonds and total long-term debt. Restricted net position increased $1.5 million compared to the prior year.

Statement of Revenues, Expenses and Changes in Net Position

The following table reflects the condensed consolidated Statement of Revenues, Expenses and Changes in Net Position for KUB compared to the prior two fiscal years.

Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30

(in thousands of dollars)	2019	2018	2017
Operating revenues	$ 815,390	$ 815,544	$ 769,496
Less: Purchased energy expense	462,564	477,038	460,594
Margin from sales	352,826	338,506	308,902
Operating expenses			
Treatment	16,355	15,951	16,211
Distribution and collection	66,590	63,868	65,309
Customer service	15,710	13,327	14,151
Administrative and general	42,601	30,891	34,897
Depreciation	74,730	77,666	72,022
Taxes and tax equivalents	36,310	34,504	33,483
Total operating expenses	252,296	236,207	236,073
Operating income	100,530	102,299	72,829
Interest income	6,626	4,063	2,140
Interest expense	(43,590)	(41,962)	(40,470)
Other income/(expense)	668	(1,296)	(416)
Change in net position before capital contributions	64,234	63,104	34,083
Capital contributions	1,104	467	2,008
Change in net position	$ 65,338	$ 63,571	$ 36,091

Normal Impacts on Statement of Revenues, Expenses and Changes in Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Revenues, Expenses and Changes in Net Position presentation.

- Operating revenue is largely determined by volume of sales for the fiscal year. Any change (increase/decrease) in retail rates would also be a cause of change in operating revenue.

- Purchased energy expense is determined by volume of power purchases from TVA and volume of natural gas purchases for the fiscal year. Also, any change (increase/decrease) in wholesale power and/or gas rates would result in a change in purchased energy expense.

- Operating expenses (distribution, customer service, administrative and general) are normally impacted by changes in areas including, but not limited to, labor cost (staffing, wage rates), active employee and retiree medical expenses, and system maintenance.

- Depreciation expense is impacted by plant additions and retirements during the fiscal year.

- Taxes and equivalents are impacted by plant additions/retirements, changes in property tax rates, and gross margin levels.

- Interest income is impacted by level of interest rates and investments.

- Interest expense on debt is impacted by level of outstanding debt and the interest rate(s) on the outstanding debt.

- Other income/(expenses) is impacted by miscellaneous non-operating revenues and expenses.

- Capital contributions are impacted by a donation of facilities/infrastructure to KUB by developers and governmental agencies. The contributions are recognized as revenue and recorded as plant in service based on the fair market value of the asset(s).

Impacts and Analysis

Change in Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

KUB's consolidated Change in Net Position increased $65.3 million in fiscal year 2019. Comparatively, net position increased by $63.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $4.5 million. The change resulted in a total increase of $68.1 million in KUB's net position.

Fiscal Year 2018 Compared to Fiscal Year 2017

KUB's consolidated Change in Net Position increased $63.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $4.5 million. The change resulted in a total increase of $68.1 million in KUB's net position. Comparatively, net position increased by $36.1 million in fiscal year 2017.

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Margin from Sales

Fiscal Year 2019 Compared to Fiscal Year 2018

Operating revenue was $0.2 million lower than the previous fiscal year. Both electric and natural gas sales were impacted by a milder winter than the previous fiscal year. Electric Division operating revenue decreased $1.7 million due to the net result of additional revenue from KUB's electric rate increase, lower sales volumes, and the flow through of prior year over recovered purchased power costs to electric customers. Gas Division revenue decreased $6 million for the fiscal year, the net result of a 5.6 percent decrease in billed sales and additional revenue generated from the October 2018 gas rate increase. Water Division revenue increased $3.7 million, the net result of additional revenue from the July 2018 water rate increase and a 1.1 percent decline in billed water sales volumes. Wastewater Division revenue was $3.8 million higher than the previous year due to additional revenue from the July 2018 wastewater rate increase offset by a one percent decrease in billable wastewater volumes.

Wholesale energy expense decreased $14.5 million or 3 percent. Purchased power expense decreased $8.1 million compared to last year, reflecting lower customer demand. Purchased gas expense was $6.4 million lower, reflecting lower customer demand for the fiscal year.

Margin from sales (operating revenue less purchased energy expense) increased $14.3 million compared to the previous year. The increase reflects additional revenue from the electric, natural gas, water, and wastewater rate increases.

Fiscal Year 2018 Compared to Fiscal Year 2017

Operating revenue was $46 million or 6 percent higher than the previous fiscal year. Both electric and natural gas sales were impacted by a colder winter than the previous fiscal year. Electric Division operating revenue increased $13.6 million due to the result of additional revenue from KUB's electric rate increase, the flow through of TVA rate adjustments, and the flow through of prior year over recovered purchased power costs to electric customers. Gas Division revenue increased $22.6 million for the fiscal year, the result of a 20.8 percent increase in billed sales due to the colder winter and additional revenue generated from the gas rate increase. Water Division revenue increased $3.6 million, the net result of additional revenue from the water rate increase and a 2.1 percent decline in billed water sales volumes. Wastewater Division revenue was $6.2 million higher than the previous year due to additional revenue from the wastewater rate increase offset by a 0.2 percent decrease in billable wastewater volumes.

Wholesale energy expense increased $16.4 million or 3.6 percent. Purchased power expense increased $4.1 million compared to last year, reflecting higher wholesale rates from TVA. Purchased gas expense was $12.3 million higher, reflecting higher customer demand for the fiscal year.

Margin from sales (operating revenue less purchased energy expense) increased $29.6 million compared to the previous year. The increase reflects additional revenue from the electric, natural gas, water, and wastewater rate increases and higher natural gas sales volumes.

Operating Expenses

Fiscal Year 2019 Compared to Fiscal Year 2018

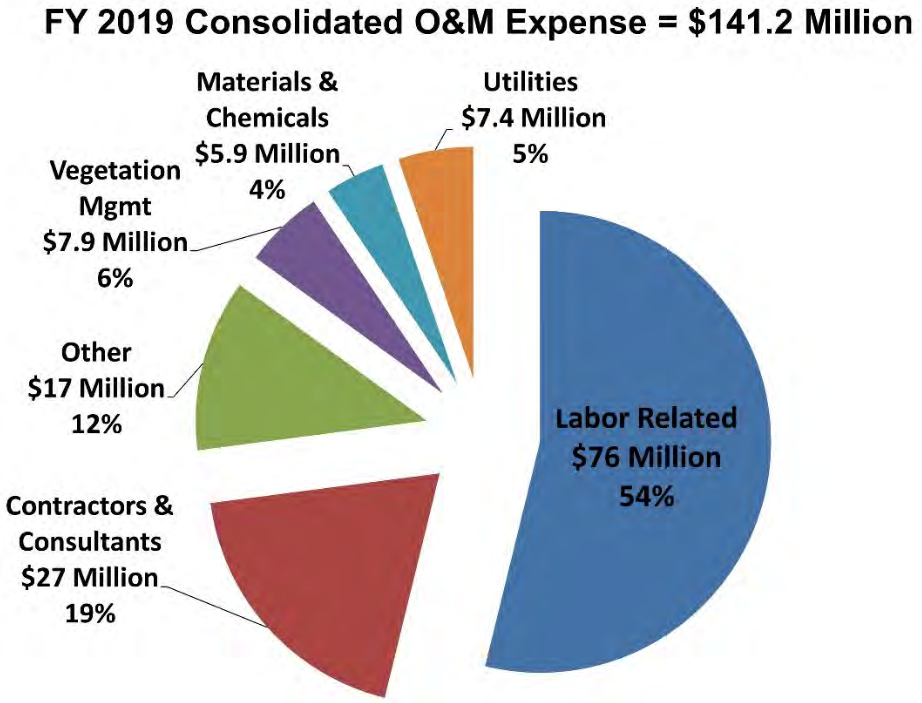
Operating expenses (excluding wholesale purchased energy expense) increased $16.1 million compared to fiscal year 2018. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as treatment, distribution and collection, customer service, and administrative and general.

- Treatment expenses were $0.4 million higher than the prior year, reflecting higher outside contractor and consultant expenses for the wastewater system offset by lower outside contractor costs and labor related expenses for the water system.

- Distribution and collection expenses increased $2.7 million or 4.3 percent, primarily due to higher utility system contractors, electric line contractors and higher labor related expenses.

- Customer service expenses increased $2.4 million, primary due to higher expenses associated with meter reading contractors and technology consultants.

- Administrative and general expenses increased $11.7 million, primarily due to an increase in labor related expenses including higher pension expenses, reflecting impact of investment losses on Pension Trust assets in 2018.



- Depreciation expense decreased $2.9 million or 3.8 percent, primarily due to the sale of streetlight assets to the City of Knoxville in 2018 and full depreciation of key information technology systems. KUB added $145.3 million in assets during fiscal year 2018. A full year of depreciation expense was recorded on these capital investments and a partial year of depreciation expense was incurred on $135.4 million in assets placed in service during fiscal year 2019.

- Taxes and tax equivalents increased $1.8 million or 5.2 percent due to increased plant in service levels. Tax equivalent payments to taxing jurisdictions in which KUB's utility systems are located are based on a combination of net plant values and margin from energy sales.

Fiscal Year 2018 Compared to Fiscal Year 2017

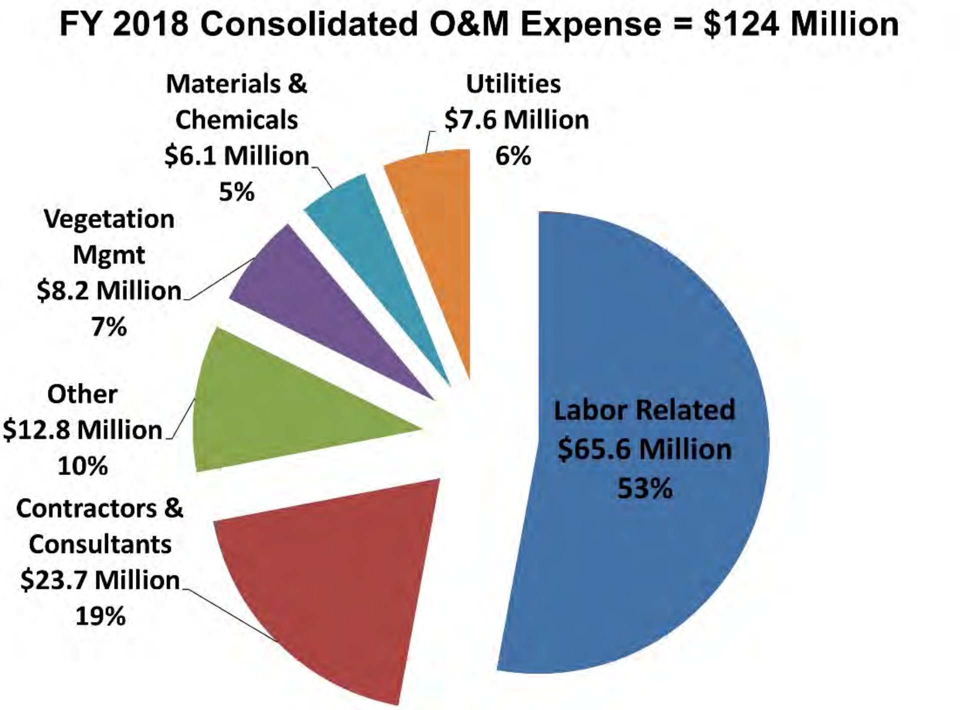
Operating expenses (excluding wholesale purchased energy expense) increased $0.1 million compared to fiscal year 2017. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as treatment, distribution and collection, customer service, and administrative and general.

- Treatment expenses were $0.3 million lower than the prior year, reflecting lower outside contractor and consultant expenses for the wastewater system.

- Distribution and collection expenses decreased $1.4 million or 2.2 percent, primarily due to less outside contractor use and lower labor related expenses.

- Customer service expenses decreased $0.8 million or 5.8 percent, primary due to less outside contractor use.

- Administrative and general expenses decreased $4 million or 11.5 percent, primarily due to a decrease in labor related expenses.



- Depreciation expense increased $5.6 million or 7.8 percent. KUB added $156.7 million in assets during fiscal year 2017. A full year of depreciation expense was recorded on these capital investments and a partial year of depreciation expense was incurred on $145.3 million in assets placed in service during fiscal year 2018.

- Taxes and tax equivalents increased $1 million or 3 percent due to increased plant in service levels. Tax equivalent payments to taxing jurisdictions in which KUB's utility systems are located are based on a combination of net plant values and margin from energy sales.

Other Income and Expense

Fiscal Year 2019 Compared to Fiscal Year 2018

Interest income increased $2.6 million compared to the prior fiscal year, reflecting increases in short-term interest rates over the prior fiscal year.

Interest expense increased $1.6 million or 3.9 percent, reflecting the impact of interest expense from new revenue bonds sold during the fiscal year.

Other income (net) increased $2 million, primarily due to mark-to-market adjustments on investments.

Capital contributions by developers were $0.6 million higher due to increased donated assets compared to the prior fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Interest income increased $1.9 million compared to the prior fiscal year, reflecting increases in short-term interest rates over the prior fiscal year.

Interest expense increased $1.5 million or 3.7 percent, reflecting the net effect of interest expense from new revenue bonds sold during the fiscal year and savings on refunding of outstanding bonds.

Other income (net) decreased $0.9 million, primarily due to the prior year recognition of $0.9 million in non-operating income for the reimbursement by FEMA to offset the cost of restoration expenses related to the May 2017 storm.

Capital contributions by developers were $1.5 million lower due to less donated assets compared to the prior fiscal year.

Capital Assets

Capital Assets
As of June 30
(Net of Depreciation)

(in thousands of dollars)	**2019**	**2018**	**2017**
Production Plant (Intakes)	$ 7	$ 57	$ 58
Pumping and Treatment Plant	209,281	204,756	196,884
Distribution and Collection Plant			
Mains and metering	$ 837,277	$ 825,318	$ 804,007
Services and meters	152,554	129,275	108,974
Electric station equipment	52,974	54,695	53,178
Poles, towers and fixtures	137,804	127,343	113,640
Overhead conductors	108,965	99,761	90,886
Line transformers	61,784	61,446	60,424
Other accounts	187,759	185,945	196,598
Total Distribution & Collection Plant	$ 1,539,117	$ 1,483,783	$ 1,427,707
General Plant	54,690	55,713	58,881
Total Plant Assets	$ 1,803,095	$ 1,744,309	$ 1,683,530
Work In Progress	217,074	153,686	141,763
Total Net Plant	$ 2,020,169	$ 1,897,995	$ 1,825,293

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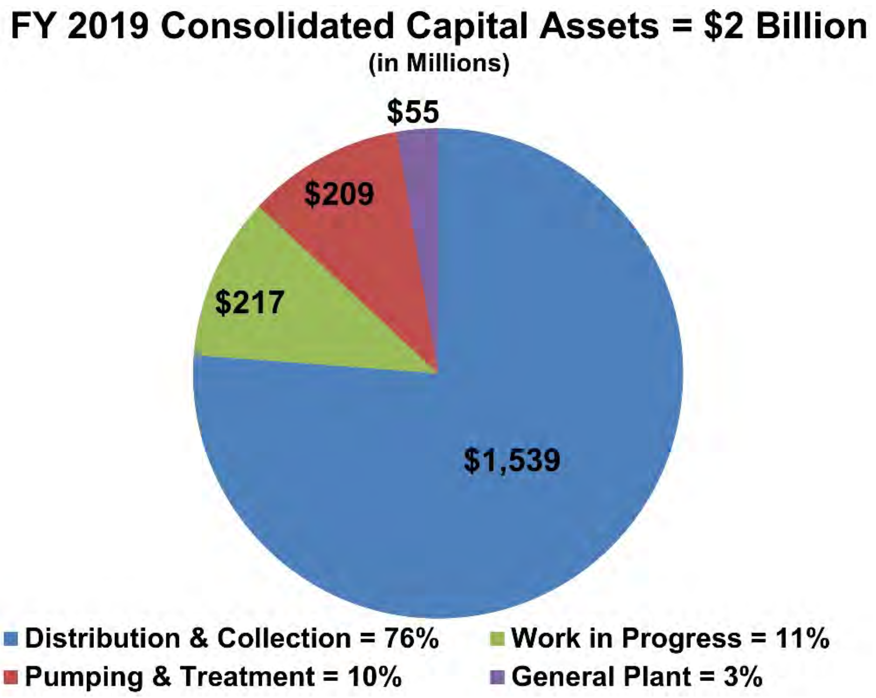
Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, KUB had $2 billion invested in capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $122.2 million or 6.4 percent over the end of the last fiscal year.



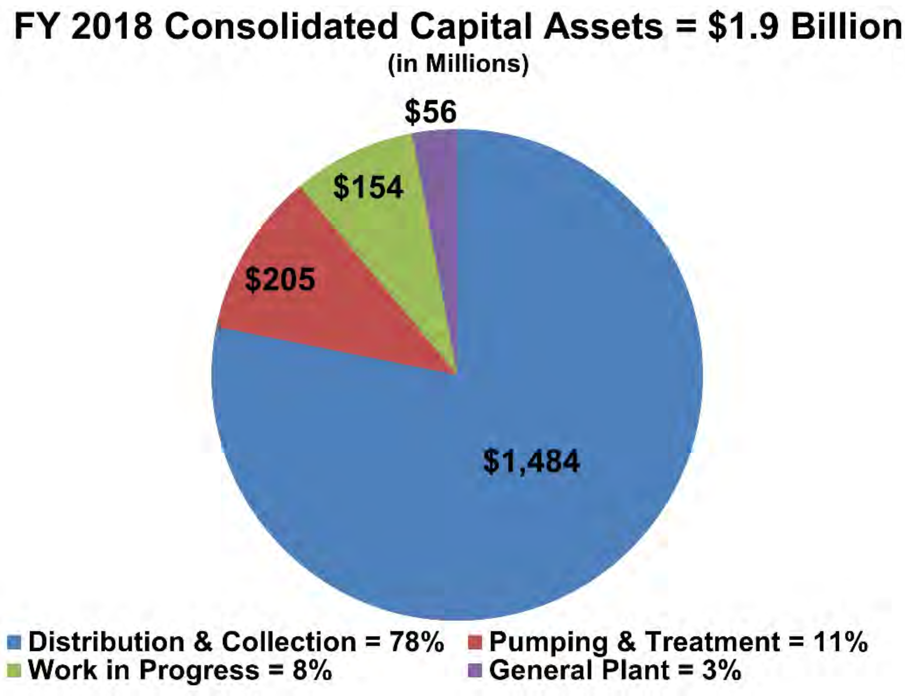
Major capital asset additions during the year were as follows:

- $42.9 million related to wastewater Century II projects
  - $19.1 million for wastewater treatment plant upgrades
  - $8.6 million for sewer mini-basin rehabilitation and replacement
  - $5.2 million for pump station construction and improvements
  - $4.1 million for sewer trunk line rehabilitation and replacement
  - $3.1 million for rehabilitation projects
  - $2.8 million for short line projects
- $29.5 million for various electric distribution system improvements
- $16.8 million for building improvements
- $14.1 million for Grid Modernization and advanced metering, including SCADA system upgrades, for the electric, gas and water systems
- $11.3 million for water plant and system improvements
- $10.3 million for pole replacements for the electric system

- $8.3 million for replacement and relocation of utility assets for the gas and water system to accommodate TDOT highway improvement projects

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, KUB had $1.9 billion invested in capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $72.7 million or 4 percent over the end of the last fiscal year.



Major capital asset additions during the year were as follows:

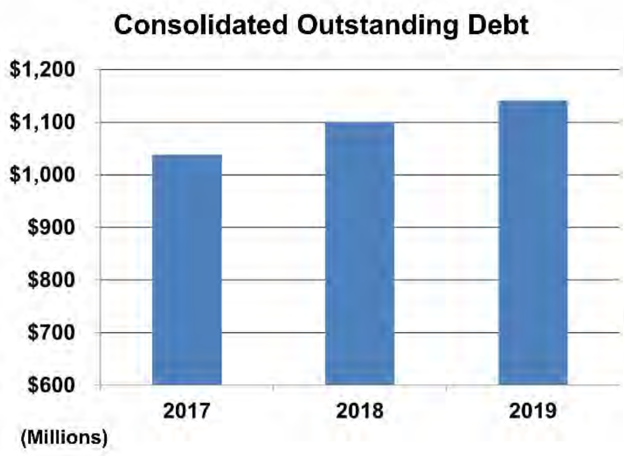
- $31.3 million for various electric distribution system improvements
- $26.7 million related to wastewater Century II projects
  - $12.9 million for wastewater treatment plant upgrades
  - $7.2 million for sewer mini-basin rehabilitation and replacement
  - $4.9 million for sewer trunk line rehabilitation and replacement
  - $1.7 million for pump station construction and improvements
- $12.4 million for water plant and system improvements
- $10.1 million for Grid Modernization and advanced metering, including SCADA system upgrades, for the electric, gas and water systems
- $8.9 million for replacement and relocation of utility assets for the gas and water system to accommodate TDOT highway improvement projects
- $8.6 million for pole replacements for the electric system

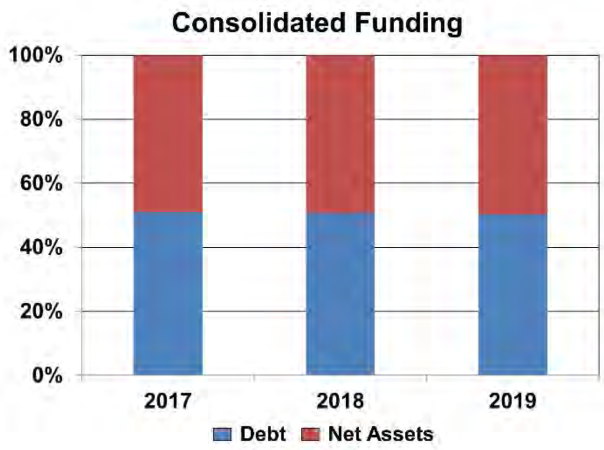
Debt Administration

KUB's outstanding debt was $1.14 billion at June 30, 2019. Debt as a percentage of capital structure was 50.2 percent in 2019, 50.8 percent in 2018, and 51 percent at the end of fiscal year 2017.

Outstanding Debt
As of June 30

(in thousands of dollars)	2019	2018	2017
Revenue bonds	$ 1,141,925	$ 1,099,795	$ 1,037,500
Total outstanding debt	$ 1,141,925	$ 1,099,795	$ 1,037,500





KUB will pay $451.6 million in principal payments over the next ten years, representing 39.5 percent of outstanding bonds.

Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, KUB had $1.14 billion in outstanding debt (including the current portion of revenue bonds) compared to $1.1 billion last year, an increase of $42.1 million. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. KUB's weighted average cost of debt as of June 30, 2019 was 3.79 percent (3.59 percent including the impact of Build America Bonds rebates).

KUB sold $40 million in electric system revenue bonds in August 2018 for the purpose of funding electric system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.42 percent.

KUB sold $8 million in gas system revenue bonds in August 2018 for the purpose of funding gas system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.49 percent.

KUB sold $20 million in water system revenue bonds in August 2018 for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.46 percent.

KUB sold $12 million in wastewater system revenue bonds in August 2018 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.49 percent.

KUB's outstanding debt is rated by Standard & Poor's (S&P) and Moody's Investors Service. In May 2019, KUB received a change in its long-term rating from S&P on the electric system. The reduction from 'AA+' to 'AA' reflects a change in methodology in how S&P calculates fixed-charge coverage by including the utility's demand component of its purchased power bill to cover its portion of the Tennessee Valley Authority's (TVA) fixed costs, including debt service associated with generating plants. KUB's reduction is consistent with other TVA distributors, due to the same change in methodology. As of June 30, 2019, Standard & Poor's rated the revenue bonds of the Water Division AAA, the Wastewater Division AA+, and the revenue bonds of the Electric Division and the Gas Division AA. Moody's Investors Service rated the bonds of the Water Division Aa1 and the Electric, Gas and Wastewater Divisions Aa2.

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, KUB had $1.1 billion in outstanding debt (including the current portion of revenue bonds) compared to $1.04 billion last year, an increase of $62.3 million. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. KUB's weighted average cost of debt as of June 30, 2018 was 3.81 percent (3.60 percent including the impact of Build America Bonds rebates).

KUB sold $40 million in electric system revenue bonds in August 2017 for the purpose of funding electric system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent.

KUB sold $12 million in gas system revenue bonds in August 2017 for the purpose of funding gas system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.07 percent.

KUB sold $20 million in water system revenue bonds in August 2017 for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.05 percent.

KUB sold $25 million in wastewater system revenue bonds in August 2017 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent.

KUB's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2018, Standard & Poor's rated the revenue bonds of the Water Division AAA, the Electric and Wastewater Divisions AA+ and the revenue bonds of the Gas Division AA. Moody's Investors Service rated the bonds of the Water Division Aa1 and the Electric, Gas and Wastewater Divisions Aa2.

Impacts on Future Financial Position

KUB anticipates a net increase of 3,850 customers during fiscal year 2020.

In June 2017, the KUB Board adopted the next three years of rate increases for all four utility Divisions to help fund the ongoing Century II infrastructure programs for each system. Each Division's third approved rate increase will go into effect during fiscal year 2020.

The remaining approved electric rate increase is effective October 2019 and is expected to provide an additional $5.7 million in annual revenue to assist with the funding of the Electric Division.

The remaining approved gas rate increase is effective October 2019 and is expected to provide an additional $2.3 million in annual revenue to assist with the funding of the Gas Division.

The remaining approved water rate increase is effective July 2019 is expected to provide and additional $3.3 million in annual revenue, to assist with the funding of the Water Division.

The remaining approved wastewater rate increase is effective July 2019 and is expected to provide an additional $4.5 million in annual revenue to assist with the funding of the Wastewater Division.

KUB sold $20 million in water system revenue bonds in July 2019 for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent.

KUB sold $16 million in wastewater system revenue bonds in July 2019 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent.

Ratings by Standard & Poor's and Moody's Investors Service were reaffirmed for the water and wastewater systems as part of the issuance process for the aforementioned bonds.

KUB long-term debt includes $120.3 million of Build America Bond (BABs). The BABs were sold on a taxable basis with the United States Treasury providing a rebate to KUB for a percentage of the interest cost. The interest rebates were subject to federal sequestration during the fiscal year and were reduced by 6.2 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

The Pension Plan actuarial valuation for the Plan year ending December 31, 2018 resulted in an actuarially determined contribution of $2,585,824 for the fiscal year ending June 30, 2020, based on the Plan's current funding policy. Subsequent to June 30, 2019, the actuarial valuation for the Plan year ending December 31, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $3,167,680 for the fiscal year ending June 30, 2021, based on the Plan's current funding policy. For the Plan year ending December 31, 2019, the Plan's actuarial funded ratio was 104.68 percent.

The OPEB Plan actuarial valuation as of January 1, 2018 resulted in an actuarially determined contribution of $311,324 for the fiscal year ending June 30, 2020, based on the Plan's current funding policy. Subsequent to June 30, 2019, the actuarial valuation as of January 1, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $757,226 for the fiscal year ending June 30, 2021, based on the Plan's current funding policy. The Plan's actuarial funded ratio was 86.3 percent.

GASB Statement No. 84, *Fiduciary Activities*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 87, *Leases*, is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period,* is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 90, *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 91, *Conduit Debt Obligations*, is effective for fiscal years beginning after December 15, 2020. KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

No other facts, decisions, or conditions are currently known which would have a significant impact on KUB's financial position or results of operations during fiscal year 2019.

Financial Contact

KUB's financial statements are designed to present users (citizens, customers, investors, and creditors) with a general overview of KUB's financial position and results of operations for the fiscal years ending June 30, 2019 and 2018. If you have questions about the statements or need additional financial information, contact KUB's Chief Financial Officer at 445 South Gay Street, Knoxville, Tennessee 37902.

Knoxville Utilities Board
Consolidated Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Assets and Deferred Outflows of Resources		
Current assets:		
Cash and cash equivalents	$ 91,639,940	$ 128,217,924
Short-term investments	27,471,225	2,485,400
Short-term contingency fund investments	79,038,925	30,057,546
Other current assets	1,405,053	2,862,353
Accrued interest receivable	159,019	123,231
Accounts receivable, less allowance of uncollectible accounts of $589,889 in 2019 and $681,624 in 2018	76,689,091	82,097,279
Inventories	22,127,455	23,191,810
Prepaid expenses	874,206	866,295
Gas storage	7,251,486	7,037,629
Total current assets	306,656,400	276,939,467
Restricted assets:		
Bond funds	35,948,463	33,506,454
Other funds	21,482	21,446
Total restricted assets	35,969,945	33,527,900
Plant in service	2,720,121,544	2,616,728,074
Less accumulated depreciation	(917,026,275)	(872,419,331)
	1,803,095,269	1,744,308,743
Retirement in progress	3,688,844	2,855,990
Construction in progress	213,384,960	150,829,851
Net plant in service	2,020,169,073	1,897,994,584
Other assets:		
Net pension asset	-	19,778,372
Net OPEB asset	-	3,751,068
Long-term contingency fund investments	29,934,235	73,744,762
TVA conservation program receivable	2,961,311	4,301,001
Under recovered purchased gas cost	1,339,422	-
Other	12,989,818	12,519,454
Total other assets	47,224,786	114,094,657
Total assets	2,410,020,204	2,322,556,608
Deferred outflows of resources:		
Pension outflow	17,252,635	1,947,863
OPEB outflow	2,493,180	662,384
Unamortized bond refunding costs	21,462,880	22,933,336
Total deferred outflows of resources	41,208,695	25,543,583
Total assets and deferred outflows of resources	$ 2,451,228,899	$ 2,348,100,191

The accompanying notes are an integral part of these consolidated financial statements.

Knoxville Utilities Board
Consolidated Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Liabilities, Deferred Inflows, and Net Position		
Current liabilities:		
Current portion of revenue bonds	$ 39,970,000	$ 36,845,000
Sales tax collections payable	1,422,867	1,373,433
Accounts payable	51,433,305	51,528,545
Accrued expenses	20,412,212	22,420,724
Customer deposits plus accrued interest	20,674,169	19,239,531
Accrued interest on revenue bonds	14,675,955	14,092,280
Total current liabilities	148,588,508	145,499,513
Other liabilities:		
TVA conservation program	3,082,829	4,431,219
Accrued compensated absences	9,184,481	8,497,960
Customer advances for construction	8,144,729	4,927,837
Net pension liability	6,881,639	280,341
Net OPEB liability	1,447,742	-
Over recovered purchased power cost	2,674,466	4,706,715
Over recovered purchased gas cost	-	1,466,723
Other	236,604	155,411
Total other liabilities	31,652,490	24,466,206
Long-term debt:		
Revenue bonds	1,101,955,000	1,062,950,000
Unamortized premiums/discounts	33,071,871	34,146,236
Total long-term debt	1,135,026,871	1,097,096,236
Total liabilities	1,315,267,869	1,267,061,955
Deferred inflows of resources:		
Pension inflow	3,843,381	13,937,341
OPEB inflow	-	321,637
Total deferred inflows of resources	3,843,381	14,258,978
Total liabilities and deferred inflows of resources	1,319,111,250	1,281,320,933
Net position		
Net investment in capital assets	871,180,151	794,382,860
Restricted for:		
Debt service	21,272,508	19,414,174
Other	21,482	21,446
Unrestricted	239,643,508	252,960,778
Total net position	1,132,117,649	1,066,779,258
Total liabilities, deferred inflows, and net position	$ 2,451,228,899	$ 2,348,100,191

The accompanying notes are an integral part of these consolidated financial statements.

Knoxville Utilities Board
Consolidated Statements of Revenues, Expenses and Changes in Net Position
June 30, 2019 and 2018

	2019	2018
Operating revenues		
Electric	$ 551,464,042	$ 553,212,568
Gas	108,316,063	114,248,463
Water	57,555,214	53,836,154
Wastewater	98,054,399	94,246,807
Total operating revenues	815,389,718	815,543,992
Operating expenses		
Purchased power	413,008,588	421,104,855
Purchased gas	49,554,956	55,933,211
Treatment	16,355,397	15,951,179
Distribution and collection	66,589,972	63,867,520
Customer service	15,710,333	13,327,372
Administrative and general	42,600,716	30,890,738
Provision for depreciation	74,729,662	77,665,810
Taxes and tax equivalents	36,310,281	34,504,209
Total operating expenses	714,859,905	713,244,894
Operating income	100,529,813	102,299,098
Non-operating revenues (expenses)		
Contributions in aid of construction	4,915,266	9,219,259
Interest and dividend income	6,625,915	4,062,762
Interest expense	(43,590,141)	(41,961,682)
Amortization of debt costs	102,529	170,641
Write-down of plant for costs recovered through contributions	(4,915,266)	(9,219,259)
Other	566,668	(1,466,504)
Total non-operating revenues (expenses)	(36,295,029)	(39,194,783)
Change in net position before capital contributions	64,234,784	63,104,315
Capital contributions	1,103,607	467,468
Change in net position	65,338,391	63,571,783
Net position, beginning of year, as previously reported	1,066,779,258	998,684,780
Change in method of accounting for OPEB	-	4,522,695
Net position, beginning of year, as restated	1,066,779,258	1,003,207,475
Net position, end of year	$ 1,132,117,649	$ 1,066,779,258

The accompanying notes are an integral part of these consolidated financial statements.

Knoxville Utilities Board
Consolidated Statements of Cash Flows
June 30, 2019 and 2018

		2019		2018
Cash flows from operating activities:				
Cash receipts from customers	$	817,447,076	$	802,335,926
Cash receipts from other operations		15,864,600		13,706,479
Cash payments to suppliers of goods or services		(559,980,615)		(557,199,870)
Cash payments to employees for services		(56,925,927)		(58,281,778)
Payment in lieu of taxes		(31,550,780)		(29,925,260)
Cash receipts from collections of TVA conservation loan program participants		1,539,808		2,013,974
Cash payments for TVA Conservation loan program		(1,548,508)		(2,097,002)
Net cash provided by operating activities		184,845,654		170,552,469
Cash flows from capital and related financing activities:				
Net proceeds from bond issuance		80,122,836		97,923,109
Principal paid on revenue bonds and notes payable		(37,860,000)		(34,705,000)
Interest paid on revenue bonds and notes payable		(43,006,465)		(40,864,170)
Acquisition and construction of plant		(203,842,819)		(167,594,705)
Changes in bond funds, restricted		(2,442,009)		(2,641,489)
Customer advances for construction		3,347,423		1,695,867
Proceeds received on disposal of plant		342,017		5,963,771
Cash received from developers and individuals for capital purposes		4,915,266		9,219,259
Net cash used in capital and related financing activities		(198,423,751)		(131,003,358)
Cash flows from investing activities:				
Purchase of investment securities		(71,745,842)		(52,384,101)
Maturities of investment securities		42,935,000		58,785,002
Interest received		6,479,650		3,909,645
Other property and investments		(668,695)		(597,269)
Net cash (used in) provided by investing activities		(22,999,887)		9,713,277
Net (decrease) increase in cash and cash equivalents		(36,577,984)		49,262,388
Cash and cash equivalents, beginning of year		128,217,924		78,955,536
Cash and cash equivalents, end of year	$	91,639,940	$	128,217,924
Reconciliation of operating income to net cash provided by operating activities				
Operating income	$	100,529,813	$	102,299,098
Adjustments to reconcile operating income to net cash provided by operating activities:				
Depreciation expense		77,384,125		80,114,269
Changes in operating assets and liabilities:				
Accounts receivable		5,408,188		(7,663,441)
Inventories		1,064,356		(4,715,819)
Prepaid expenses		(221,767)		849,135
TVA conservation program receivable		1,339,690		1,721,814
Other assets		1,352,685		701,622
Sales tax collections payable		49,434		64,050
Accounts payable and accrued expenses		2,610,084		(7,795,795)
TVA conservation program payable		(1,348,390)		(1,804,842)
Unrecovered purchased power cost		(2,032,249)		749,042
Underrecovered gas costs		(2,806,145)		5,210,809
Customer deposits plus accrued interest		1,434,638		791,892
Other liabilities		81,192		30,635
Net cash provided by operating activities	$	184,845,654	$	170,552,469
Noncash capital activities:				
Acquisition of plant assets through developer contributions	$	1,103,607	$	467,468

The accompanying notes are an integral part of these consolidated financial statements.

1. Description of Business

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions including setting rates. KUB's accounts are maintained in conformity with the Uniform System of Accounts of the Federal Energy Regulatory Commission (FERC), the Uniform System of Accounts of the National Association of Regulatory Utility Commissioners (NARUC), and the Governmental Accounting Standards Board (GASB), as applicable.

2. Significant Accounting Policies

Basis of Accounting

In conformity with Generally Accepted Accounting Principles (GAAP), KUB follows the provisions of GASB Statement No. 34 (Statement No. 34), *Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* as amended by GASB Statement No. 63 (Statement No. 63), *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position.* Statement No. 34 established standards for external financial reporting for all state and local governmental entities. Under Statement No. 63, financial statements include deferred outflows of resources and deferred inflows of resources, in addition to assets and liabilities, and report *net position* instead of net assets. In addition, KUB follows GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* as it relates to certain items for regulatory accounting. Regulatory accounting allows a regulated utility to defer a cost (a regulatory asset) or recognize an obligation (a regulatory liability) if it is probable that through the rate making process, there will be a corresponding increase or decrease in future revenues. Accordingly, KUB has recognized certain regulatory assets and regulatory liabilities in the accompanying Statements of Net Position.

The consolidated financial statements are prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred. The accounting and financial reporting treatment applied is determined by measurement focus. The transactions are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the Statement of Net Position. Net position (i.e., total assets and deferred outflows of resources net of total liabilities and deferred inflows of resources) is segregated into net investment in capital assets, restricted for capital activity and debt service, and unrestricted components.

Recently Adopted New Accounting Pronouncements

In November 2016, the GASB issued GASB Statement No. 83 (Statement No. 83), *Certain Asset Retirement Obligations*. The objective of this Statement is to define asset retirement obligations as a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations is required to perform future asset retirement activities related to its tangible capital assets to recognize a liability based on the guidance in this Statement. Statement No. 83 is effective for fiscal years beginning after June 15, 2018.

In April 2018, the GASB issued GASB Statement No. 88 (Statement No. 88), *Certain Disclosure Related to Debt, Including Direct Borrowings and Direct Placements.* The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowing and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Statement No. 88 is effective for fiscal years beginning after June 15, 2018.

Principles of Consolidation

The consolidated financial statements include the accounts of the Electric, Gas, Water and Wastewater Divisions. All significant intercompany balances and transactions have been eliminated in consolidation.

KUB issues separate financial reports, which include financial statements and required supplementary information, for the Electric, Gas, Water, and Wastewater Divisions. These reports may be obtained by writing Knoxville Utilities Board, P.O. Box 59017, Knoxville, TN 37950-9017.

Plant

Plant and other property are stated on the basis of original cost. The costs of current repairs and minor replacements are charged to operating expense. The costs of renewals and improvements are capitalized. The original cost of utility plant assets retired or otherwise disposed of and the cost of removal less salvage value is charged to accumulated depreciation. When other property is retired, the related asset and accumulated depreciation are removed from the accounts, and the gain or loss is included in the results of operations.

The provision for depreciation of plants in service is based on the estimated useful lives of the assets, which range from three to sixty-seven years, and is computed using the straight-line method. Pursuant to FERC/NARUC, the caption "Provision for depreciation" in the consolidated Statements of Revenues, Expenses and Changes in Net Position does not include depreciation for transportation equipment of $2,654,463 in fiscal year 2019 and $2,448,459 in fiscal year 2018. Under regulatory accounting, interest costs are expensed as incurred with construction of plant assets.

Operating Revenue

Operating revenue consists primarily of charges for services provided by the principal operations of KUB. Operating revenue is recorded when the service is rendered, on a cycle basis, and includes an estimate of unbilled revenue. Revenues are reported net of bad debt expense of $1,926,366 in fiscal year 2019 and $2,158,897 in fiscal year 2018.

Non-operating Revenue

Non-operating revenue consists of revenues that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities.

Expense

When an expense is incurred for purposes for which there are both restricted and unrestricted assets available, it is KUB’s policy to apply those expenses to restricted assets to the extent such are available and then to unrestricted assets.

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; net position-restricted; and net position-unrestricted.

These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt also should be included in this component of net position. If there are significant unspent related debt proceeds at year end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

- Net position-restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.

- Net position-unrestricted – This component of net position consists of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Contributions in Aid of Construction and Capital Contributions

Contributions in aid of construction are cash collections from customers or others for a particular purpose, generally the construction of new facilities to serve new customers in excess of the investment KUB is willing to make for a particular incremental revenue source. KUB reduces the plant account balances to which contributions relate by the actual amount of the contribution and recognizes the contributions as non-operating revenue in accordance with Statement No. 62.

Capital contributions represent contributions of utility plant infrastructure constructed by developers and others in industrial parks and other developments, and transferred to KUB upon completion of construction and the initiation of utility service. In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, such contributions are recognized as revenues and capital assets upon receipt.

Inventories

Inventories, consisting of plant materials and operating supplies, are valued at the lower of average cost or replacement value.

Change in Method of Accounting for OPEB

In June 2015, the Governmental Accounting Standards Board (GASB) issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses reporting by governments that provide OPEB to their employees. This standard was adopted by KUB in 2018 and resulted in a restatement of beginning net position of $4,522,695 to increase the net OPEB asset by $4,522,695 based on revised actuarial assumptions to conform with GASB 75.

OPEB Plan

KUB’s employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and were enrolled in medical coverage on their last day are eligible for post-employment health care. KUB’s OPEB Trust was established by KUB’s Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. KUB’s policy is to fully fund the annual actuarially determined contributions, which are determined by actuarial valuation. As required by GASB Statement No. 75, KUB measures net OPEB liability as total OPEB liability less the amount of the Plan’s fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB’s measurements as of June 30, 2019 and 2018 are based on a June 30, 2019 and 2018 measurement date, respectively. The net OPEB liability is $1,447,742 as of June 30, 2019 and the net OPEB asset is $3,751,068 as of June 30, 2018.

Pension Plan and Qualified Excess Benefit Arrangement

KUB's employees are participants in the Knoxville Utilities Board Pension Plan as authorized by the Charter of the City of Knoxville §1107(J) (Note 10). KUB's policy is to fully fund the annual actuarially determined contributions. As required by GASB Statement No. 68, KUB measures net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a December 31, 2018 and 2017 measurement date, respectively. The net pension liability is $6,649,756 as of June 30, 2019, and the net pension asset is $19,778,372 as of June 30, 2018.

KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB (Note 11). As required by GASB Statement No. 73, KUB measures the total pension liability of the QEBA. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on the December 31, 2018 and 2017 measurement dates. The total pension liability of the QEBA is $231,883 as of June 30, 2019 and $280,341 as of June 30, 2018.

Investments

Investments are carried at fair value as determined by quoted market prices at the reporting date.

Self-Insurance

KUB has established self-insurance programs covering portions of workers' compensation, employee health, environmental liability, general liability, property and casualty liability, and automobile liability claims. A liability is accrued for claims as they are incurred. When applicable, claims in excess of the self-insured risk are covered by KUB's insurance carrier. Additionally, KUB provides certain lifetime health benefits to eligible retired employees under a self-insurance plan administered by a third party.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on historical experience and various other assumptions that KUB believes are reasonable under the circumstances. However, future events are subject to change and the best estimates and judgments routinely require adjustment. Estimates are used for, but not limited to, inventory valuation, allowance for uncollectible accounts, depreciable lives of plant assets, unbilled revenue volumes, pension trust valuations, OPEB trust valuations, insurance liability reserves, and potential losses from contingencies and litigation. Actual results could differ from those estimates.

Restricted and Designated Assets

Certain assets are restricted by bond resolutions for the construction of utility plant and debt repayment. Certain additional assets are designated by management for contingency purposes and economic development.

Cash Equivalents

For purposes of the Statements of Cash Flows, KUB considers all unrestricted and undesignated highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. Deferred inflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Deferred outflows of resources also include employer pension contributions made subsequent to the measurement date of the net pension liability and before the end of the employer's reporting period in accordance with Statement No. 71. Deferred inflows and deferred outflows also include the net difference between projected and actual earnings on pension plan investments and OPEB plan investments, differences between expected and actual experience, and changes in assumptions in accordance with Statements No. 68, 73, and 75.

Debt Premium/Discount

KUB records unamortized premium and discount on debt as a separate line item in the Long Term Debt section of the Financial Statements. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Debt Issuance Costs

In accordance with regulatory accounting, KUB records debt issuance costs as an Other Asset. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Deferred Gain/Loss on Refunding of Debt

KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. In accordance with FERC presentation, amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Compensated Absences

KUB accrues a liability for earned but unpaid paid-time off (PTO) days.

TVA Conservation Program

KUB previously served as a fiscal intermediary for the Tennessee Valley Authority (TVA) whereby loans were made to KUB customers by TVA to be used in connection with TVA's Energy Right Residential Program. While KUB still holds existing loans on behalf of TVA, no loans were made through this program after October 31, 2015.

Subsequent Events

KUB has evaluated events and transactions through October 30, 2019, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold $20 million in water system revenue bonds in July 2019 for the purpose of funding water system capital improvements in fiscal year 2020. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent. Annual debt service payments including principal and interest range from $774,068 to $1,051,450 with final maturity in fiscal year 2049. KUB sold $16 million in wastewater system revenue bonds in July 2019 for the purpose of funding wastewater system capital improvements in fiscal year 2020. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent. Annual debt service payments including principal and interest range from $596,817 to $852,450 with final maturity in fiscal year 2049.

Purchased Power Adjustment

In October 2002, the Board adopted a Purchased Power Adjustment (PPA) to address changes in wholesale power costs. The PPA was established in response to an amendment to KUB's power supply contract under which, among other things, TVA relinquished its regulatory authority over KUB retail electric rates. The PPA allows KUB to promptly adjust retail electric rates in response to wholesale rate changes or adjustments, thus ensuring that KUB will recover the costs incurred for purchased power. These changes in electric costs are reflected as adjustments to the base electric rates established by the Board. The rate-setting authority vested in the Board by the City Charter meets the “self-regulated” provisions of Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, and KUB meets the remaining criteria of Statement No. 62.

TVA implemented a fuel cost adjustment in October 2006 applied on a quarterly basis to wholesale power rates. TVA’s quarterly fuel cost adjustment became a monthly fuel cost adjustment effective October 2009. KUB flows changes to wholesale power rates from TVA’s fuel cost adjustment mechanism directly through to its retail electric rates via the PPA.

In April 2011, TVA modified its wholesale rate structure to demand and energy billing for its distributors. In response, KUB revised its PPA to include a deferred accounting component to ensure appropriate matching of revenue and expense and cost recovery. KUB will adjust its retail rates on an annual basis to flow any over or under recovery of wholesale power costs through to its customers via the PPA.

Under the PPA mechanism, KUB tracks the actual over/(under) recovered amount in the Over/(Under) Recovered Purchased Power Cost accounts. These accounts are rolled into the PPA rate adjustments thereby assuring that any over/(under) recovered amounts are promptly passed on to the KUB’s electric customers. The amount of over/(under) recovered cost was $2,674,466 at June 30, 2019 and $4,706,715 at June 30, 2018.

Purchased Gas Adjustment

In November 1990, the Board implemented a deferred Purchased Gas (Cost) Adjustment (PGA) mechanism, which allows KUB to flow changes in purchased gas costs through to its customers. These changes in gas costs are reflected as adjustments to the base gas rates established by the Board. The rate-setting authority vested in the Board by the City Charter meets the “self-regulated” provisions of GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.

The PGA is intended to ensure that KUB recovers the total cost of natural gas purchased, transported and/or reserved for delivery to its sales and transportation customers on an equitable basis. The PGA is also intended to ensure that no excess or deficient cost recovery from KUB’s customers occurs.

Under the PGA mechanism, KUB tracks the actual over/(under) recovered amount in the Over/(Under) Recovered Purchased Gas Cost accounts. These accounts are rolled into the PGA rate adjustment on June 30 of each year thereby ensuring that any over/(under) recovered amounts are passed on to KUB’s gas system customers. The amount of over/(under) recovered cost was ($1,339,422) at June 30, 2019 and $1,466,723 at June 30, 2018.

Recently Issued Accounting Pronouncements

In January 2017, the GASB issued GASB Statement No. 84 (Statement No. 84), *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 is effective for fiscal years beginning after December 15, 2018.

In June 2017, the GASB issued GASB Statement No. 87 (Statement No. 87), *Leases*. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset. Statement No. 87 is effective for fiscal years beginning after December 15, 2019.

In June 2018, the GASB issued GASB Statement No. 89 (Statement No. 89), *Accounting for Interest Cost Incurred Before the End of a Construction Period.* The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period, and to simplify accounting for interest cost incurred before the end of a construction period. Statement No. 89 is effective for fiscal years beginning after December 15, 2019.

In August 2018, the GASB issued GASB Statement No. 90 (Statement No. 90), *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61.* The objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. Statement No. 90 is effective for fiscal years beginning after December 15, 2018.

In May 2019, the GASB issued GASB Statement No. 91 (Statement No. 91), *Conduit Debt Obligations.* The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. Statement No. 91 is effective for fiscal years beginning after December 15, 2020.

KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

3. Deposits and Investments

KUB follows the provisions of Statement No. 40 of the Governmental Accounting Standards Board, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3*. This Statement establishes and modifies disclosure requirements for state and local governments related to deposit and investment risks. KUB classifies its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*.

KUB's investment policy provides the framework for the administration and investment of cash deposits. The investment policy follows Tennessee State law and defines the parameters under which KUB funds should be invested. State law authorizes KUB to invest in obligations of the United States Treasury, its agencies and instrumentalities; certificates of deposit; repurchase agreements; money market funds; and the State Treasurer's Investment Pool.

Interest Rate Risk. KUB's primary investment objectives are to place investments in a manner to ensure the preservation of capital, remain sufficiently liquid to meet all operating requirements, and maximize yield of return. KUB minimizes its exposure to interest rate risk by adhering to Tennessee State law requirements for the investment of public funds. This includes limiting investments to those types described above and limiting maturity horizons. The maximum maturity is four years from the date of investment. KUB also limits its exposure by holding investments to maturity unless cash flow requirements dictate otherwise.

Credit Risk. KUB's investment policy, as required by state law, is to apply the prudent-person rule: Investments are made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable income to be derived, as well as the probable safety of their capital.

Custodial Credit Risk. KUB's investment policy limits exposure to custodial credit risk by restricting investments to a standard set forth by state law. All deposits in excess of federal depository insurance limits are collateralized with government securities held in KUB's name by a third-party custodian bank(s) acting as KUB's agent(s), or through the State of Tennessee's collateral pool. Financial institutions that participate in the collateral pool are subject to special assessment; therefore, the deposits are considered insured. A portion of KUB's investments are generally held in the State of Tennessee Local Government Investment Pool (LGIP). The LGIP is a part of the State Pooled Investment Fund and is sponsored by the State of Tennessee Treasury Department. Tennessee Code Annotated ¶9-4-701 *et seq*. authorizes local governments to invest in the LGIP. None of KUB's investments are exposed to custodial credit risk.

Classification of deposits and investments per Statement of Net Position:

		2019		2018
Current assets				
Cash and cash equivalents	$	91,639,940	$	128,217,924
Short-term investments		27,471,225		2,485,400
Short-term contingency fund investments		79,038,925		30,057,546
Other assets				
Long-term contingency fund investments		29,366,076		73,287,077
Restricted assets				
Bond fund		35,948,463		33,506,454
Other funds		21,482		21,446
	$	263,486,111	$	267,575,847

The above amounts do not include accrued interest of $568,159 in fiscal year 2019 and $457,685 in fiscal year 2018. Interest income is recorded on an accrual basis.

Investments and maturities of KUB's deposits and investments as held by financial institutions as of June 30, 2019:

	Deposit and Investment Maturities (in Years)					
		Fair Value		Less Than 1		1-5
Supersweep NOW and Other Deposits	$	115,235,925	$	115,235,925	$	-
State Treasurer's Investment Pool		10,558,907		10,558,907		-
Agency Bonds		135,876,226		106,510,150		29,366,076
Certificates of Deposits		5,892,559		5,892,559		-
	$	267,563,617	$	238,197,541	$	29,366,076

KUB categorizes its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*. The hierarchy is based on the valuation inputs used to measure the fair value of an asset with a maturity at purchase greater than one year. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

KUB has the following recurring fair value measurements as of June 30, 2019:

- U.S. Agency bonds of $29,366,076, which have a maturity at purchase of greater than one year, are valued using quoted market prices (Level 1 inputs)

KUB measures investments with a maturity at purchase of one year or less at amortized cost, which is considered a fair value equivalent due to their nature. Investments in the State Treasurer's Investment Pool are measured at net asset value (NAV) per share.

4. Accounts Receivable

Accounts receivable consists of the following:

	2019	**2018**
Wholesale and retail customers		
Billed services	$ 48,109,474	$ 49,764,219
Unbilled services	26,627,126	29,305,291
Other	2,542,380	3,709,393
Allowance for uncollectible accounts	(589,889)	(681,624)
	$ 76,689,091	$ 82,097,279

5. Accounts Payable and Accruals

Accounts payable and accruals consist of the following:

	2019	**2018**
Trade accounts	$ 51,433,305	$ 51,528,545
Salaries and wages	3,196,798	2,843,932
Advances on pole rental	1,224,209	1,225,693
Self-insurance liabilities	1,911,512	1,822,689
Other current liabilities	14,079,693	16,528,410
	$ 71,845,517	$ 73,949,269

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6. Long-Term Obligations

	Balance June 30, 2018	Additions	Payments	Defeased	Balance June 30, 2019	Amounts Due Within One Year
Electric						
Y-2009 - 2.5 - 5.0%	$ 1,850,000	$ -	$ 1,850,000	$ -	$ -	$ -
Z-2010 - 1.45 - 6.35%	21,285,000	-	1,355,000	-	19,930,000	1,390,000
AA-2012 - 3.0 - 5.0%	28,640,000	-	2,805,000	-	25,835,000	2,955,000
BB-2012 - 3.0 - 4.0%	31,850,000	-	725,000	-	31,125,000	750,000
CC-2013 - 3.0 - 4.0%	8,560,000	-	475,000	-	8,085,000	500,000
DD-2014 - 2.0 - 4.0%	37,900,000	-	775,000	-	37,125,000	800,000
EE-2015 - 2.0 - 5.0%	28,125,000	-	150,000	-	27,975,000	2,075,000
FF-2015 - 2.0 - 5.0%	33,625,000	-	725,000	-	32,900,000	750,000
GG-2016 - 2.0 - 5.0%	39,225,000	-	825,000	-	38,400,000	850,000
HH-2017 - 2.5 - 5.0%	23,390,000	-	1,890,000	-	21,500,000	1,990,000
II-2017 - 3.0 - 5.0%	40,000,000	-	700,000	-	39,300,000	765,000
JJ-2018 - 3.0 - 5.0%	-	39,995,000	-	-	39,995,000	775,000
Total bonds	$ 294,450,000	$ 39,995,000	$ 12,275,000	$ -	$ 322,170,000	$ 13,600,000
Unamortized Premium	12,031,042	516,151	873,309	-	11,673,884	-
Total long term debt	$ 306,481,042	$ 40,511,151	$ 13,148,309	$ -	$ 333,843,884	$ 13,600,000
Gas						
P-2010 - 3.3 - 6.2%	$ 10,890,000	$ -	$ 595,000	$ -	$ 10,295,000	$ 620,000
Q-2012 - 2.0 - 4.0%	18,455,000	-	2,190,000	-	16,265,000	2,260,000
R-2012 - 2.0 - 4.0%	8,575,000	-	425,000	-	8,150,000	450,000
S-2013 - 2.0 - 4.0%	10,265,000	-	615,000	-	9,650,000	645,000
T-2013 - 2.0 - 4.6%	23,400,000	-	500,000	-	22,900,000	500,000
U-2015 - 2.0 - 5.0%	10,965,000	-	660,000	-	10,305,000	680,000
V-2016 - 2.125 - 5.0%	11,550,000	-	250,000	-	11,300,000	250,000
W-2017 - 5.0%	7,390,000	-	670,000	-	6,720,000	705,000
X-2017 - 2.0 - 5.0%	11,800,000	-	235,000	-	11,565,000	245,000
Y-2018 - 3.0 - 5.0%	-	8,000,000	210,000	-	7,790,000	155,000
Total bonds	$ 113,290,000	$ 8,000,000	$ 6,350,000	$ -	$ 114,940,000	$ 6,510,000
Unamortized Premium	4,510,823	70,169	387,296	-	4,193,696	-
Total long term debt	$ 117,800,823	$ 8,070,169	$ 6,737,296	$ -	$ 119,133,696	$ 6,510,000
Water						
U-2009 - 3.0 - 4.5%	$ 950,000	$ -	$ 950,000	$ -	$ -	$ -
W-2011 - 2.0 - 5.0%	21,700,000	-	550,000	-	21,150,000	550,000
X-2012 - 3.0 - 5.0%	7,615,000	-	565,000	-	7,050,000	590,000
Y-2013 - 3.0 - 4.0%	8,390,000	-	320,000	-	8,070,000	340,000
Z-2013 - 2.0 - 5.0%	22,675,000	-	525,000	-	22,150,000	550,000
AA-2014 - 2.0 - 4.0%	7,425,000	-	150,000	-	7,275,000	175,000
BB-2015 - 2.0 - 5.0%	21,870,000	-	885,000	-	20,985,000	950,000
CC-2015 - 2.0 - 4.0%	18,875,000	-	425,000	-	18,450,000	425,000
DD-2016 - 3.0 - 5.0%	24,250,000	-	500,000	-	23,750,000	525,000
EE-2016 - 2.0 - 5.0%	20,775,000	-	100,000	-	20,675,000	1,090,000
FF-2017 - 3.0 - 5.0%	4,840,000	-	465,000	-	4,375,000	475,000
GG-2017 - 2.125 - 5.0%	19,800,000	-	380,000	-	19,420,000	395,000
HH-2018 - 3.0 - 5.0%	-	19,995,000	525,000	-	19,470,000	380,000
Total bonds	$ 179,165,000	$ 19,995,000	$ 6,340,000	$ -	$ 192,820,000	$ 6,445,000
Unamortized Premium	5,743,978	467,809	364,462	-	5,847,325	-
Total long term debt	$ 184,908,978	$ 20,462,809	$ 6,704,462	$ -	$ 198,667,325	$ 6,445,000
Wastewater						
2010 - 6.3 - 6.5%	$ 30,000,000	$ -	$ -	$ -	$ 30,000,000	$ -
2010C - 1.18 - 6.1%	61,600,000	-	1,550,000	-	60,050,000	1,600,000
2012A - 2.0 - 4.0%	12,770,000	-	970,000	-	11,800,000	950,000
2012B - 1.25 - 5.0%	60,375,000	-	1,050,000	-	59,325,000	1,100,000
2013A - 2.0 - 4.0%	110,460,000	-	660,000	-	109,800,000	685,000
2014A - 2.0 - 4.0%	28,275,000	-	475,000	-	27,800,000	500,000
2015A - 3.0 - 5.0%	126,400,000	-	5,010,000	-	121,390,000	5,305,000
2015B - 3.0 - 5.0%	28,500,000	-	500,000	-	28,000,000	525,000
2016 - 2.0 - 5.0%	19,200,000	-	450,000	-	18,750,000	475,000
2017A - 3.0 - 5.0%	10,560,000	-	1,460,000	-	9,100,000	1,525,000
2017B - 2.0 - 5.0%	24,750,000	-	490,000	-	24,260,000	515,000
2018 - 3.0 - 5.0%	-	12,000,000	280,000	-	11,720,000	235,000
Total bonds	$ 512,890,000	$ 12,000,000	$ 12,895,000	$ -	$ 511,995,000	$ 13,415,000
Unamortized Premium	11,860,393	101,285	604,712	-	11,356,966	-
Total long term debt	$ 524,750,393	$ 12,101,285	$ 13,499,712	$ -	$ 523,351,966	$ 13,415,000
Consolidated						
Total bonds	$ 1,099,795,000	$ 79,990,000	$ 37,860,000	$ -	$ 1,141,925,000	$ 39,970,000
Total unamortized premium	34,146,236	1,155,414	2,229,779	-	33,071,870	-
Total long term debt	$ 1,133,941,236	$ 81,145,414	$ 40,089,779	$ -	$ 1,174,996,870	$ 39,970,000

Electric	**Balance June 30, 2017**	**Additions**	**Payments**	**Defeased**	**Balance June 30, 2018**	**Amounts Due Within One Year**
W-2005 - 3.0 - 4.5%	$ 2,015,000	$ -	$ 2,015,000	$ -	$ -	$ -
Y-2009 - 2.5 - 5.0%	3,600,000	-	1,750,000	-	1,850,000	1,850,000
Z-2010 - 1.45 - 6.35%	22,615,000	-	1,330,000	-	21,285,000	1,355,000
AA-2012 - 3.0 - 5.0%	31,310,000	-	2,670,000	-	28,640,000	2,805,000
BB-2012 - 3.0 - 4.0%	32,550,000	-	700,000	-	31,850,000	725,000
CC-2013 - 3.0 - 4.0%	9,035,000	-	475,000	-	8,560,000	475,000
DD-2014 - 2.0 - 4.0%	38,625,000	-	725,000	-	37,900,000	775,000
EE-2015 - 2.0 - 5.0%	28,275,000	-	150,000	-	28,125,000	150,000
FF-2015 - 2.0 - 5.0%	34,325,000	-	700,000	-	33,625,000	725,000
GG-2016 - 2.0 - 5.0%	40,000,000	-	775,000	-	39,225,000	825,000
HH-2017 - 2.5 - 5.0%	23,445,000	-	55,000	-	23,390,000	1,890,000
II-2017 - 3.0 - 5.0%	-	40,000,000	-	-	40,000,000	700,000
Total bonds	$ 265,795,000	$ 40,000,000	$ 11,345,000	$ -	$ 294,450,000	$ 12,275,000
Unamortized Premium	12,080,941	841,629	891,528	-	12,031,042	-
Total long term debt	$ 277,875,941	$ 40,841,629	$ 12,236,528	$ -	$ 306,481,042	$ 12,275,000
Gas						
P-2010 - 3.3 - 6.2%	$ 11,460,000	$ -	$ 570,000	$ -	$ 10,890,000	$ 595,000
Q-2012 - 2.0 - 4.0%	20,580,000	-	2,125,000	-	18,455,000	2,190,000
R-2012 - 2.0 - 4.0%	9,000,000	-	425,000	-	8,575,000	425,000
S-2013 - 2.0 - 4.0%	10,860,000	-	595,000	-	10,265,000	615,000
T-2013 - 2.0 - 4.6%	23,900,000	-	500,000	-	23,400,000	500,000
U-2015 - 2.0 - 5.0%	11,580,000	-	615,000	-	10,965,000	660,000
V-2016 - 2.125 - 5.0%	11,775,000	-	225,000	-	11,550,000	250,000
W-2017 - 5.0%	8,065,000	-	675,000	-	7,390,000	670,000
X-2017 - 2.0 - 5.0%	-	12,000,000	200,000	-	11,800,000	235,000
Total bonds	$ 107,220,000	$ 12,000,000	$ 5,930,000	$ -	$ 113,290,000	$ 6,140,000
Unamortized Premium	4,671,708	222,730	383,615	-	4,510,823	-
Total long term debt	$ 111,891,708	$ 12,222,730	$ 6,313,615	$ -	$ 117,800,823	$ 6,140,000
Water						
U-2009 - 3.0 - 4.5%	$ 1,875,000	$ -	$ 925,000	$ -	$ 950,000	$ 950,000
W-2011 - 2.0 - 5.0%	22,250,000	-	550,000	-	21,700,000	550,000
X-2012 - 3.0 - 5.0%	8,150,000	-	535,000	-	7,615,000	565,000
Y-2013 - 3.0 - 4.0%	8,690,000	-	300,000	-	8,390,000	320,000
Z-2013 - 2.0 - 5.0%	23,175,000	-	500,000	-	22,675,000	525,000
AA-2014 - 2.0 - 4.0%	7,575,000	-	150,000	-	7,425,000	150,000
BB-2015 - 2.0 - 5.0%	22,735,000	-	865,000	-	21,870,000	885,000
CC-2015 - 2.0 - 4.0%	19,275,000	-	400,000	-	18,875,000	425,000
DD-2016 - 3.0 - 5.0%	24,725,000	-	475,000	-	24,250,000	500,000
EE-2016 - 2.0 - 5.0%	20,875,000	-	100,000	-	20,775,000	100,000
FF-2017 - 3.0 - 5.0%	5,310,000	-	470,000	-	4,840,000	465,000
GG-2017 - 2.125 - 5.0%	-	20,000,000	200,000	-	19,800,000	380,000
Total bonds	$ 164,635,000	$ 20,000,000	$ 5,470,000	$ -	$ 179,165,000	$ 5,815,000
Unamortized Premium	5,357,304	735,453	348,779	-	5,743,978	-
Total long term debt	$ 169,992,304	$ 20,735,453	$ 5,818,779	$ -	$ 184,908,978	$ 5,815,000
Wastewater						
2008 - 4.0 - 6.0%	$ 1,950,000	$ -	$ 1,950,000	$ -	$ -	$ -
2010 - 6.3 - 6.5%	30,000,000	-		-	30,000,000	-
2010C - 1.18 - 6.1%	63,100,000	-	1,500,000	-	61,600,000	1,550,000
2012A - 2.0 - 4.0%	13,755,000	-	985,000	-	12,770,000	970,000
2012B - 1.25 - 5.0%	61,375,000	-	1,000,000	-	60,375,000	1,050,000
2013A - 2.0 - 4.0%	111,095,000	-	635,000	-	110,460,000	660,000
2014A - 2.0 - 4.0%	28,750,000	-	475,000	-	28,275,000	475,000
2015A - 3.0 - 5.0%	129,235,000	-	2,835,000	-	126,400,000	5,010,000
2015B - 3.0 - 5.0%	28,975,000	-	475,000	-	28,500,000	500,000
2016 - 2.0 - 5.0%	19,650,000	-	450,000	-	19,200,000	450,000
2017A - 3.0 - 5.0%	11,965,000	-	1,405,000	-	10,560,000	1,460,000
2017B - 2.0 - 5.0%	-	25,000,000	250,000	-	24,750,000	490,000
Total bonds	$ 499,850,000	$ 25,000,000	$ 11,960,000	$ -	$ 512,890,000	$ 12,615,000
Unamortized Premium	12,067,331	473,638	680,576	-	11,860,393	-
Total long term debt	$ 511,917,331	$ 25,473,638	$ 12,640,576	$ -	$ 524,750,393	$ 12,615,000
Consolidated						
Total bonds	$ 1,037,500,000	$ 97,000,000	$ 34,705,000	$ -	$ 1,099,795,000	$ 36,845,000
Total unamortized premium	34,177,284	2,273,450	2,304,498	-	34,146,236	-
Total long term debt	$ 1,071,677,284	$ 99,273,450	$ 37,009,498	$ -	$ 1,133,941,236	$ 36,845,000

Debt service over remaining term of the debt is as follows:

Fiscal Year	Principal	Interest	Total
2020	$ 39,970,000	$ 42,892,403	$ 82,862,403
2021	41,630,000	41,171,803	82,801,803
2022	43,510,000	39,305,174	82,815,174
2023	45,360,000	37,351,578	82,711,578
2024	47,230,000	35,400,632	82,630,632
2025-2029	233,855,000	151,405,359	385,260,359
2030-2034	209,685,000	111,719,392	321,404,392
2035-2039	198,295,000	76,216,218	274,511,218
2040-2044	195,080,000	38,260,369	233,340,369
2045-2049	85,735,000	6,435,238	92,170,238
2050	1,575,000	63,000	1,638,000
Total	$ 1,141,925,000	$ 580,221,166	$ 1,722,146,166

The Divisions have pledged sufficient revenue, after deduction of all current operating expenses (exclusive of tax equivalents), to meet bond principal and interest payments of revenue bonds when due. Such bond requirements are being met through monthly deposits to the bond funds as required by the bond covenants. As of June 30, 2019 these requirements had been satisfied.

During fiscal year 2011, KUB's Electric Division issued series Z 2010 bonds to fund electric system capital improvements. The bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change. During fiscal year 2018, KUB's Electric Division issued Series II 2017 bonds to fund electric system capital improvements. During fiscal year 2019, KUB's Electric Division issued Series JJ 2018 bonds to fund electric system capital improvements.

During fiscal year 2011, KUB's Gas Division issued Series P 2010 bonds to fund gas system capital improvements. The bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change. During fiscal year 2018, KUB's Gas Division issued Series X 2017 bonds to fund gas system capital improvements. During fiscal year 2019, KUB's Gas Division issued Series Y 2018 bonds to fund gas system capital improvements.

During fiscal year 2018, KUB's Water Division issued GG 2017 bonds to fund water system capital improvements. During fiscal year 2019, KUB's Water Division issued HH 2018 bonds to fund water system capital improvements.

During fiscal year 2010, KUB's Wastewater Division issued Series 2010 bonds to fund capital improvements. These bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change. During fiscal year 2011, KUB's Wastewater Division issued Series 2010C bonds to fund capital improvements. These bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change. During fiscal year 2018, KUB's Wastewater Division issued Series 2017B bonds to fund wastewater system capital improvements. During fiscal year 2019, KUB's Wastewater Division issued Series 2018 bonds to fund wastewater system capital improvements.

Other liabilities consist of the following:

	Balance June 30, 2018	**Increase**	**Decrease**	**Balance June 30, 2019**
TVA conservation program	$ 4,431,219	$ 229,677	$ (1,578,067)	$ 3,082,829
Accrued compensated absences	8,497,960	17,219,913	(16,533,392)	9,184,481
Customer advances for construction	4,927,837	5,388,950	(2,172,058)	8,144,729
Other	155,411	460,348	(379,155)	236,604
	$ 18,012,427	$ 23,298,888	$ (20,662,672)	$ 20,648,643

	Balance June 30, 2017	**Increase**	**Decrease**	**Balance June 30, 2018**
TVA conservation program	$ 6,236,061	$ 329,922	$ (2,134,764)	$ 4,431,219
Accrued compensated absences	9,074,278	16,585,797	(17,162,115)	8,497,960
Customer advances for construction	3,295,196	2,792,954	(1,160,313)	4,927,837
Other	124,777	247,352	(216,718)	155,411
	$ 18,730,312	$ 19,956,025	$ (20,673,910)	$ 18,012,427

7. Lease Commitments

KUB has non-cancelable operating lease commitments for office equipment, property, and vehicles, summarized for the following fiscal years:

2020	$ 356,004
2021	126,704
2022	74,816
Total operating minimum lease payments	$ 557,524

8. Capital Assets

Capital asset activity was as follows:

	Balance June 30, 2018	Increase	Decrease	Balance June 30, 2019
Production Plant (Intakes)	$ 742,503	$ -	$ -	$ 742,503
Pumping and Treatment Plant	318,574,479	14,159,127	(2,317,357)	330,416,249
Distribution and Collection Plant				
Mains and metering	1,032,950,195	33,661,520	(7,294,102)	1,059,317,613
Services and meters	202,172,532	33,921,735	(3,467,702)	232,626,565
Electric station equipment	158,378,701	4,513,155	(815,276)	162,076,580
Poles, towers and fixtures	176,892,740	15,553,101	(2,113,880)	190,331,961
Overhead conductors	155,165,532	12,895,083	(8,593,679)	159,466,936
Line transformers	101,994,883	2,854,573	(1,231,776)	103,617,680
Other accounts	288,745,129	10,031,160	(3,403,815)	295,372,474
Total Distribution & Collection Plant	$ 2,116,299,712	$ 113,430,327	$ (26,920,230)	$ 2,202,809,809
General Plant	181,111,380	7,796,309	(2,754,706)	186,152,983
Total Plant Assets	$ 2,616,728,074	$ 135,385,763	$ (31,992,293)	$ 2,720,121,544
Less Accumulated Depreciation	(872,419,331)	(77,516,402)	32,909,458	(917,026,275)
Net Plant Assets	$ 1,744,308,743	$ 57,869,361	$ 917,165	$ 1,803,095,269
Work In Progress	153,685,841	195,236,025	(131,848,062)	217,073,804
Total Net Plant	$ 1,897,994,584	$ 253,105,386	$ (130,930,897)	$ 2,020,169,073

	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
Production Plant (Intakes)	$ 742,503	$ -	$ -	$ 742,503
Pumping and Treatment Plant	305,202,535	15,992,521	(2,620,577)	318,574,479
Distribution and Collection Plant				
Mains and metering	994,257,571	43,058,700	(4,366,076)	1,032,950,195
Services and meters	177,936,752	29,715,666	(5,479,886)	202,172,532
Electric station equipment	154,663,731	5,396,733	(1,681,763)	158,378,701
Poles, towers and fixtures	160,365,582	18,548,854	(2,021,696)	176,892,740
Overhead conductors	143,937,397	13,259,176	(2,031,041)	155,165,532
Line transformers	99,293,217	3,464,337	(762,671)	101,994,883
Other accounts	307,402,309	7,617,156	(26,274,336)	288,745,129
Total Distribution & Collection Plant	$ 2,037,856,559	$ 121,060,622	$ (42,617,469)	$ 2,116,299,712
General Plant	178,606,088	8,201,012	(5,695,720)	181,111,380
Total Plant Assets	$ 2,522,407,685	$ 145,254,155	$ (50,933,766)	$ 2,616,728,074
Less Accumulated Depreciation	(838,877,792)	(80,244,970)	46,703,431	(872,419,331)
Net Plant Assets	$ 1,683,529,893	$ 65,009,185	$ (4,230,335)	$ 1,744,308,743
Work In Progress	141,763,046	155,166,276	(143,243,481)	153,685,841
Total Net Plant	$ 1,825,292,939	$ 220,175,461	$ (147,473,816)	$ 1,897,994,584

9. Risk Management

KUB is exposed to various risks of loss related to active and retiree medical claims; injuries to workers; theft of, damage to, and destruction of assets; environmental damages; and natural disasters. Claims expenditures and liabilities are reported when it is probable that a loss has occurred, and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported.

These liabilities are included in accrued expenses in the Statement of Net Position. The liability is KUB's best estimate based on available information. At June 30, 2019 and June 30, 2018, the amount of these liabilities was $1,911,512 and $1,822,689, respectively, resulting from the following changes:

	2019	**2018**
Balance, beginning of year	$ 1,822,689	$ 1,891,789
Current year claims and changes in estimates	17,179,059	15,713,124
Claims payments	(17,090,236)	(15,782,224)
Balance, end of year	$ 1,911,512	$ 1,822,689

10. Pension Plan

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2017 to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). The Plan is designed to provide retirement, disability and death benefits to KUB employees. KUB administers the Plan through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2018	**2017**
Inactive plan members:		
Terminated vested participants	21	34
Retirees and beneficiaries	588	602
Active plan members	592	629
Total	1,201	1,265

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost of living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of 3% of the first $4,800 of annual earnings and 5% of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2018:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%
Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $3,156,661 and $3,756,283 for 2017 and 2016, respectively, were made during the Plan sponsor’s fiscal years ending June 30, 2019 and 2018, respectively. The fiscal year 2019 contribution was determined as part of the January 1, 2017 valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant’s benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability or death.

Net Pension Liability

The below summarizes the disclosures of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*(“GASB 68”), which requires measurement of the net pension liability as total pension liability less the amount of the Plan’s fiduciary net position. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB’s measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement date, respectively.

GASB 68 requires certain disclosures related to the net pension liability of the Plan as disclosed below:

		2018		2017
Total pension liability	$	212,157,951	$	207,598,733
Plan fiduciary net position		(205,508,195)		(227,377,105)
Plan's net pension liability (asset)	$	6,649,756	$	(19,778,372)
Plan fiduciary net position as a percentage of the total pension liability		96.87%		109.50%

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Changes in Net Pension Liability are as follows:

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at December 31, 2017	$ 207,598,733	$ 227,377,105	$ (19,778,372)
Changes for the year:			
Service cost	5,095,488	-	5,095,488
Interest	15,344,193	-	15,344,193
Differences between Expected and Actual Experience	(605,649)	-	(605,649)
Changes of Assumptions	-	-	-
Contributions - employer	-	3,456,475	(3,456,475)
Contributions - rollovers	-	2,078,184	(2,078,184)
Contributions - member	-	2,941	(2,941)
Net investment income	-	(11,685,780)	11,685,780
Benefit payments	(15,274,814)	(15,274,814)	-
Administrative expense	-	(445,916)	445,916
Net changes	4,559,218	(21,868,910)	26,428,128
Balances at December 31, 2018	$ 212,157,951	$ 205,508,195	$ 6,649,756

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2018, updated to December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 23 years remaining as of January 1, 2018 and 24 years remaining as of January 1, 2017, or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2018 and 2017, the unfunded liability was negative.
Discount rate	7.5%
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation	2.8 %

The actuarial assumptions used in the January 1, 2018 and 2017 valuations were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. Subsequent revisions to lump sum and post-disability assumptions were based upon updated experience through December 31, 2015 and to retirement and termination rates and expense assumptions based upon updated experience through December 31, 2016.

The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plan’s target asset allocation as of December 31, 2018 and 2017 are summarized in the following table. The real rate of return reported for fixed income is for aggregate fixed income. The Plan has both aggregate and long duration fixed income.

	Long Term Expected Real Rate of Return	
Asset Class	**2018**	**2017**
Domestic equity	5.8%	5.0%
Non-U.S. equity	6.9%	6.6%
Real estate equity	6.0%	5.6%
Debt securities	1.7%	1.4%
Cash and deposits	0.7%	0.7%

Discount rate
The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate
The following presents the net pension liability of the Plan as of December 31, 2018, calculated using the discount rate of 7.5 percent, as well as what the Plan’s net pension liability would be if it were calculated using a discount rate that is one percent lower (6.5 percent) or one percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Plan's net pension liability	$ 23,948,053	$ 6,649,756	$ (8,451,269)

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Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $4,128,608.

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5.00 years. During the measurement year, there was an experience gain of $605,649 with $121,129 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $484,520. Unrecognized experience gains from prior periods were $2,966,120 of which $1,042,252 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,923,868.

During the measurement year, there were no benefit changes or assumption changes. Unrecognized assumption change decreases from prior periods were $2,045,837 of which $658,104 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,387,733.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $28,364,098. $5,672,818 of that loss was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $8,925,385 of which $1,848,879 was recognized as a decrease in pension expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2018 of $15,614,774. The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,578,332 at June 30, 2019 for employer contributions made between December 31, 2018 and June 30, 2019.

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	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,408,388
Changes in assumptions	-	1,387,733
Net difference between projected and actual earnings on pension plan investments	15,614,774	-
Contributions subsequent to measurement date	1,578,332	-
Total	$ 17,193,106	$ 3,796,121

$1,578,332 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 3,597,035
2021	898,518
2022	1,771,410
2023	5,551,690
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of ($15,659).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5.00 years. During the measurement year, there was an experience gain of $1,087,161 with $217,432 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $869,729. Unrecognized experience gains from prior periods were $2,921,210 of which $824,819 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $2,096,391.

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of $357,633 with $71,526 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $286,107. Unrecognized assumption change gains from prior periods were $2,346,307 of which $586,577 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,759,730.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $17,456,614. $3,491,323 of that gain was recognized in the current year and an identical amount will be recognized in each of the next four years. Net unrecognized investment losses from prior periods were $6,682,351 of which $1,642,445 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment gains this year along with the net unrecognized investment losses from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2017 of ($8,925,384). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,878,146 at June 30, 2018 for employer contributions made between December 31, 2017 and June 30, 2018.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,966,120
Changes in assumptions	-	2,045,837
Net difference between projected and actual earnings on pension plan investments	-	8,925,385
Contributions subsequent to measurement date	1,878,146	-
Total	$ 1,878,146	$ 13,937,342

11. Qualified Excess Benefit Arrangement

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are not subject to cost of living adjustments.

As of June 30, 2019, there are 568 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There is currently one member receiving benefits under the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits, therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis, funded by KUB. There are no assets accumulated in a trust that meets the GASB's criteria.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement dates, respectively.

GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2018	**2017**
Total pension liability	$231,883	$280,341
Deferred outflows	(52,287)	(69,716)
Deferred inflows	47,260	-
Net impact on Statement of Net Position	$226,856	$210,625
Covered payroll	$42,150,040	$43,309,374
Total pension liability as a % of covered payroll	0.55%	0.65%

Changes in total pension liability of the QEBA are as follows:

	Increase (Decrease)
	Total Pension Liability
Balances at December 31, 2017	$ 280,341
Changes for the year:	
Service cost	941
Interest	9,676
Changes of Benefits	-
Differences between Expected and Actual Experience	(36,125)
Changes of Assumptions	(22,950)
Benefit payments	-
Net changes	(48,458)
Balances at December 31, 2018	$ 231,883

Actuarial Assumptions
The total pension liability of the QEBA was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2019, for December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 22 years remaining as of January 1, 2019 and 24 years remaining as of January 1, 2017.
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct MP2018 fully generational as of January 1, 2019 and Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA as of January 1, 2017
Inflation	2.5% as of January 1, 2019 and 2.8% as of January 1, 2017

The actuarial assumptions used in the January 1, 2019 valuation were based on the results of an actuarial experience study for the period January 1, 2014 through December 31, 2018.

Discount rate
The QEBA is not funded. In accordance with paragraph 31 of GASB 73, the discount rate is based on the Bond Buyer 20-Bond GO index. This rate was 4.1% at December 31, 2018.

Sensitivity of the total pension liability to changes in the discount rate
The following presents the total pension liability of the QEBA as of December 31, 2018, calculated using the discount rate of 4.1 percent, as well as what the QEBA's total pension liability would be if it were calculated using a discount rate that is one percent lower (3.1 percent) or one percent higher (5.1 percent) than the current rate:

	1% Decrease (3.1%)	**Current Discount Rate (4.1%)**	**1% Increase (5.1%)**
QEBA's total pension liability	$ 254,623	$ 231,883	$ 212,364

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $29,543 for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA ($13,312), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$226,856 - $210,625 + $13,312].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5 years. During the measurement year, there was an experience gain of $36,125 with $7,225 recognized in the current year and each of the next four years, resulting in a deferred inflow of $28,900. There was a deferred outflow at the end of the measurement year of $8,210 from experience losses in prior years.

During the measurement year, there were no benefit changes. There was a decrease in the total pension liability due to assumption changes of $22,950 with $4,590 recognized in the current year and each of the next four years, resulting in a deferred inflow of $18,360. There was a deferred outflow at the end of the measurement year of $44,077 from assumption changes in prior years. In addition, KUB recorded a deferred outflow of resources of $7,242 at June 30, 2019 for contributions between December 31, 2018 and June 30, 2019.

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 8,210	$ 28,900
Changes in assumptions	44,077	18,360
Contributions subsequent to measurement date	7,242	-
Total	$ 59,529	$ 47,260

$7,242 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the total pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:		
2020	$	5,614
2021		5,614
2022		5,614
2023		(11,815)
Thereafter		-

For the year ended June 30, 2018, KUB recognized pension expense of $29,527 for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA ($3,979), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$210,625 - $185,077 + $3,979].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5 years. During the measurement year, there was an experience loss of $13,684 with approximately $2,737 recognized in the current year and each of the next four years, resulting in a deferred outflow of $10,947.

During the measurement year, there were no benefit changes. There was an increase in the total pension liability due to assumption changes of $73,461 with approximately $14,692 recognized in the current year and each of the next four years, resulting in a deferred outflow of $58,769.

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual experience	$	10,947	$	-
Changes in assumptions		58,769		-
Total	$	69,716	$	-

12. Defined Contribution Plan

The KUB Asset Accumulation 401(k) Plan (the "401(k) Plan") is a defined contribution 401(k) employee retirement savings plan covering eligible KUB employees established by the KUB Board of Commissioners in accordance with the Charter of the City of Knoxville, Tennessee. The 401(k) Plan's assets are held in trust under an agreement between KUB and Fidelity Management Trust Company. Employees hired prior to January 1, 2011 may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. Employees hired on or after January 1, 2011 have an enhanced 401(k) due to the closure of the Defined Benefit Pension Plan. They may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. They also receive a nonelective KUB contribution of 3 percent to 6 percent, depending on years of service, whether they contribute or not.

KUB funded 401(k) matching contributions and nonelective contributions of $2,410,201 and $2,174,711, respectively, for the years ended June 30, 2019 and 2018.

13. Other Post-Employment Benefits (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post Employment Benefits Trust (the Trust) is a single-employer Other Post Employment Benefits Plan (OPEB Plan) established by the Knoxville Utilities Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Trust may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017.

Effective July 1, 1999, KUB closed the OPEB Plan such that persons employed or re-employed by KUB on or after July 1, 1999, are not eligible to participate, but that eligible employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the "Rule of 80", the sum of age and at least 20 years of qualified service equal or exceed 80, accrue benefits under the Plan.

Participants in the OPEB Plan consisted of the following as of June 30:

	2019	**2018**
Retirees	554	562
Dependents of retirees	550	561
Eligible active employees	288	309
Total	1,392	1,432

Benefits

Other post-employment benefits may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Only medical and pharmacy are currently provided to eligible retirees.

Contributions and Plan Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB's current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust's Board shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to and in accordance with the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired plan members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $250 per month for pre-Medicare family health insurance. For individuals who retired after January 1998 the required monthly premium for pre-Medicare health insurance is $250 for single coverage and $500 for family coverage. There is currently no premium for Medicare eligible retirees or dependents. KUB is responsible for determining the level of retired plan member contributions on an annual basis, as part of its review of healthcare cost sharing.

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2019:

Asset Class	Target Allocation
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

No contributions were made to the OPEB Trust for the fiscal years ending June 30, 2019 and 2018, based on the OPEB Plan's actuarial valuations as of January 1, 2017, and 2016.

Implementation of GASB 75

In fiscal year 2018, KUB adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), which requires measurement of the net OPEB liability as total OPEB liability, less the amount of the Trust's fiduciary net position. The amounts reported as of June 30, 2019 are based on the reporting date for the KUB Other Post-Employment Benefits Plan which is June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019 and the Total OPEB Liability as of the valuation date, January 1, 2018, updated to June 30, 2019.

The components of the net OPEB liability of the Trust are as follows as of June 30:

	2019	**2018**
Total OPEB liability	$ 50,197,938	$ 45,604,431
Plan fiduciary net position	48,750,196	49,355,499
Net OPEB liability (asset)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%

Changes in Net OPEB Liability are as follows:

	Total OPEB Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (a) - (b)
Balances at June 30, 2018	$ 45,604,431	$ 49,355,499	$ (3,751,068)
Changes for the year:			
Service cost	270,515	-	270,515
Interest	3,624,737	-	3,624,737
Differences between Expected and Actual Experience	999,098	-	999,098
Changes of Assumptions	3,231,601	-	3,231,601
Contributions - employer	-	-	-
Contributions - member	-	-	-
Net investment income	-	2,981,928	(2,981,928)
Benefit payments	(3,532,444)	(3,532,444)	-
Administrative expense	-	(54,787)	54,787
Net changes	4,593,507	(605,303)	5,198,810
Balances at June 30, 2019	$ 50,197,938	$ 48,750,196	$ 1,447,742

Actuarial assumptions
The total OPEB liability was determined by actuarial valuations, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation dates:	January 1, 2018, updated to June 30, 2019; January 1, 2017, updated to June 30, 2018
Discount rate:	7.5%
Healthcare cost trend rates:	Pre-Medicare: 8.00% grading down to 4.50% over 20 years as of January 1, 2018; 7.83% grading down to 4.50% over 19 years as of January 1, 2017 Medicare: 7.00% grading down to 4.50% over 20 years as of January 1, 2018; 6.88% grading down to 4.50% over 19 years as of January 1, 2017 Administrative expenses: 3.0% per year
Salary increases:	From 2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013, with subsequent revisions to retirement and termination assumptions based upon a special experience study, which reflected experience through December 31, 2016.

The long-term expected rate of return on Trust investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Trust investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The long-term expected rate of return may be lower in periods of current strong performance due to future valuations that mean revert to the long-term average. Best estimates of arithmetic real rates of return for each major asset class included in the Trust's target asset allocation (see the discussion of the Trust's Investment Policy) are summarized in the chart below.

	Long Term Expected Real Rate of Return	
Asset Class	**2019**	**2018**
Domestic equity	5.5%	5.1%
International equity	6.4%	6.6%
Real estate equity	5.9%	5.8%
Debt securities	1.5%	1.6%
Cash and deposits	0.6%	0.8%

Discount rate
The discount rate used to measure the total OPEB liability was 7.5 percent. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected future benefit payments. Therefore,

the long-term expected rate of return on Trust investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB liability to changes in the discount rate.
The following presents the net OPEB liability of the Trust as of June 30, 2019, calculated using the discount rate of 7.5 percent, as well as what the Trust's net OPEB liability would be if it were calculated using a discount rate that is 1 percent lower (6.5 percent) or 1 percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Net OPEB liability (asset)	$ 5,912,340	$ 1,447,742	$ (2,396,293)

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.
The following presents the net OPEB liability of the Trust as of June 30, 2019, as well as what the Trust's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percent lower or 1 percent higher than the current rate:

	1% Decrease	**Baseline Trends**	**1% Increase**
Net OPEB liability (asset)	$ (3,158,239)	$ 1,447,742	$ 6,713,737

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2019, KUB recognized OPEB expense of $3,046,377.

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $999,098 with $499,549 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $499,549. Unrecognized experience losses from prior periods were $662,384 of which the entire amount is recognized as an increase in OPEB expense in the current year.

During the measurement year, there were no benefit changes. There was an increase in the Total OPEB Liability due to assumption changes of $3,231,601 with $1,615,801 of that recognized in the current year and in the next year, resulting in a deferred outflow of $1,615,800. Unrecognized assumption changes from prior periods were ($198,590) of which the entire amount is recognized as a decrease in OPEB expense in the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $587,645. $117,529 of that was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $123,047 of which $30,762 was recognized as a decrease in OPEB expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on OPEB plan investments as of June 30, 2019 of

$377,831. The table below summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 499,549	$ -
Changes in assumptions	1,615,800	-
Net difference between projected and actual earnings on OPEB plan investments	377,831	-
Total	$ 2,493,180	$ -

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2020	$ 2,202,116
2021	86,767
2022	86,768
2023	117,529
Thereafter	-

For the year ended June 30, 2018, KUB recognized OPEB expense of $430,880.

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $1,324,769 with $662,385 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $662,384.

During the measurement year, there were no benefit changes. There was a decrease in the Total OPEB Liability due to assumption changes of $397,180 with $198,590 of that recognized in the current year and in the next year, resulting in a deferred inflow of $198,590.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $153,809. $30,762 of that was recognized in the current year and $123,047 will become a deferred inflow of resources recognized over the next four years. The table on the next page summarizes the current balances of deferred outflows and deferred inflows of resources.

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	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 662,384	$ -
Changes in assumptions	-	198,590
Net difference between projected and actual earnings on OPEB plan investments	-	123,047
Total	$ 662,384	$ 321,637

14. Related Party Transactions

KUB, in the normal course of operations, is involved in transactions with the City of Knoxville. Such transactions for the years ended June 30, 2019 and 2018 are summarized as follows:

	2019	**2018**
City of Knoxville		
Amounts billed by KUB for utilities and related services	$ 13,624,129	$ 15,524,288
Payments by KUB in lieu of property tax	20,238,463	19,144,877
Payments by KUB for services provided	2,773,377	1,114,977

With respect to these transactions, accounts receivable from the City of Knoxville included in the balance sheet at year end were as follows:

	2019	**2018**
Accounts receivable	$ 754,587	$ 991,023

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15. Natural Gas Supply Contract Commitments

For fiscal year 2019, the Gas Division hedged 40 percent of its total gas purchases via gas supply contracts. As of June 30, 2019, the Gas Division had hedged the price on approximately 8 percent of its anticipated gas purchases for fiscal year 2020.

KUB contracts separately for the purchase, transportation and storage of natural gas. Purchase commitments for the next five years are as follows:

Firm obligations related to purchased gas – demand

	2020	2021	2022	2023	2024
Transportation					
Tennessee Gas Pipeline	$ 3,267,384	$ 3,342,832	$ 3,380,556	$ 3,380,556	$ 3,380,556
East Tennessee Natural Gas	9,965,436	9,965,436	9,965,436	9,965,436	9,965,436
Storage					
Tennessee Gas Pipeline	1,748,196	1,748,196	1,748,196	1,748,196	1,748,196
East Tennessee Natural Gas	749,840	749,840	749,840	749,840	749,840
Saltville Natural Gas	2,000,160	2,000,160	2,000,160	1,655,130	620,040
Demand Total	$ 17,731,016	$ 17,806,464	$ 17,844,188	$ 17,499,158	$ 16,464,068

Firm obligations related to purchased gas – commodity

	2020	2021	2022	2023	2024
Baseload					
Shell Energy	$ 1,825,904	$ -	$ -	$ -	$ -
BP Energy Company	1,432,053		-	-	-
CNX Gas	1,759,096	-	-	-	-
Commodity Total	$ 5,017,053	$ -	$ -	$ -	$ -

The total commodity values presented here are based upon firm supply obligations with each individual natural gas supplier. The firm obligations value for Shell Energy and BP Energy Company are based upon firm supply obligations and locked prices with those suppliers. The firm obligations value for BP Energy Company and CNX Gas are based upon firm supply obligations and the applicable NYMEX strip prices on June 30, 2019.

16. Other Commitments and Contingencies

In the normal course of business, there are various lawsuits pending against KUB. Management has reviewed these lawsuits with counsel, who is vigorously defending KUB's position and is of the opinion that the ultimate disposition of these matters will not have a material adverse effect on KUB's financial position, results of operations or cash flows.

In February 2005, a Consent Decree was entered into federal court regarding the operation of KUB's wastewater system. Under the terms of the Consent Decree, the remediation of identified sanitary sewer overflows (SSOs) on KUB's wastewater system had to be completed by June 30, 2016. KUB completed all the requirements of the Consent Decree for the collection system two years in advance of the deadline.

The Consent Decree also required KUB to perform an evaluation of the wet weather performance and capacity of its wastewater treatment plants. In July 2007, KUB submitted a Composite Correction

Plan (CCP) for its wastewater treatment plants to EPA for review. The development and filing of the CCP was a requirement of the federal order of February 2005. The CCP includes recommended improvements to KUB's Kuwahee and Fourth Creek treatment plants to address wet weather capacity issues noted in prior assessments. The EPA approved the CCP in January 2009 including a recommended schedule of plant improvements that extends beyond the expiration date of the original Consent Decree. An amendment to the Consent Decree incorporating and establishing this schedule was agreed to by all parties and was entered on June 23, 2009. The purpose of the Amendment is to allow KUB to complete a portion of work outlined in the CCP after the Consent Decree deadline of June 30, 2016. The CCP provides for a biologically enhanced high-rate clarification (the BEHRC) secondary treatment system to be installed at the Fourth Creek treatment plant by June 30, 2018 and at the Kuwahee treatment plant by June 30, 2021. KUB successfully completed the installation of the BEHRC system at the Fourth Creek treatment plant ahead of schedule in April 2018. Work is currently ongoing at the Kuwahee treatment plant and remains on schedule for completion before the deadline of June 30, 2021. The total cost of such improvements at the Kuwahee treatment plant is estimated to be approximately $50 million.

KUB's funding plan for the Consent Decree includes long-term bonds and a series of rate increases phased in over the term of the order. Bond proceeds fund all types of wastewater capital projects, the majority of which are related to the Consent Decree. As of June 30, 2019, the Wastewater Division had issued $542 million in bonds to fund wastewater system capital improvements since the inception of the Consent Decree. The Board approved two 50 percent rate increases, which went into effect in April 2005 and January 2007. The Board also approved an 8 percent rate increase, which was effective in September 2008, two 12 percent rate increases, which were effective in April 2011 and October 2012, three 6 percent rate increases which were effective October 2014, October 2015 and October 2016 and three 5 percent rate increases effective July 2017, July 2018, and July 2019. KUB anticipates additional bond issues and rate increases over the next decade to help fund wastewater capital improvements.

KUB successfully completed the first cycle of Maintenance Operation Management (MOM) requirements one year before the deadline by inspecting manholes and gravity mains, smoke testing gravity mains, performing required inspections of pump stations and the related force mains, and completing all Corrective Action Plan/Engineering Report (CAP/ER) projects. KUB initiated the second MOM cycle that continues to focus on the prevention of SSOs. As part of the Century II initiative, formally known as the PACE10 program, KUB has installed storage tanks providing 34 million gallons of wastewater storage to control wet weather overflows and rehabilitated or replaced approximately 385.7 miles of collection system pipe. KUB also continues to maintain a proactive operations and maintenance plan for the wastewater collection system including inspection, grease control, and private lateral enforcement. The result of the PACE10/Century II initiative has been an 80 percent reduction in SSOs.

As of June 30, 2019, the Wastewater Division had completed its 15th full year under the Consent Decree, spending $545.6 million on capital investments to meet Consent Decree requirements.

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17. Segment Information

The following financial information represents identifiable activities for which the revenue bonds and other revenue backed debt are outstanding for the respective Divisions:

Condensed Statement of Net Position

	2019			
	Electric	**Gas**	**Water**	**Wastewater**
Assets and Deferred Outflows of Resources				
Current assets	$ 137,680,310	$ 62,061,705	$ 39,581,468	$ 67,332,917
Restricted assets	19,507,008	3,638,555	4,418,741	8,405,641
Net capital assets	634,285,863	292,089,721	340,619,377	753,174,112
Other assets	17,957,337	7,626,693	5,921,643	15,719,112
Total assets	$ 809,430,518	$ 365,416,674	$ 390,541,229	$ 844,631,782
Deferred outflows of resources	12,340,126	4,243,825	5,537,853	19,086,892
Total assets and deferred outflows of resources	$ 821,770,644	$ 369,660,499	$ 396,079,082	$ 863,718,674
Liabilities and Deferred Inflows of Resources				
Current liabilities	$ 94,528,815	$ 16,992,984	$ 12,652,885	$ 24,413,825
Other liabilities	20,105,451	5,028,708	2,692,650	3,825,681
Long-term debt	320,243,884	112,623,696	192,222,325	509,936,966
Total liabilities	$ 434,878,150	$ 134,645,388	$ 207,567,860	$ 538,176,472
Deferred inflows of resources	1,844,823	653,375	499,640	845,544
Total liabilities and deferred inflows of resources	$ 436,722,973	$ 135,298,763	$ 208,067,500	$ 539,022,016
Net position				
Net investment in capital assets	$ 300,562,581	$ 173,773,732	$ 147,251,605	$ 249,592,233
Restricted	13,610,435	2,174,252	2,151,226	3,358,076
Unrestricted	70,874,655	58,413,752	38,608,751	71,746,349
Total net position	$ 385,047,671	$ 234,361,736	$ 188,011,582	$ 324,696,658

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Condensed Statement of Net Position

	2018			
	Electric	**Gas**	**Water**	**Wastewater**
Assets and Deferred Outflows of Resources				
Current assets	$ 130,784,113	$ 53,677,817	$ 27,346,382	$ 65,131,156
Restricted assets	17,738,339	3,499,668	4,052,965	8,236,928
Net capital assets	581,742,407	278,095,447	318,177,240	719,979,490
Other assets	43,578,498	18,210,394	18,868,526	33,437,239
Total assets	$ 773,843,357	$ 353,483,326	$ 368,445,113	$ 826,784,813
Deferred outflows of resources	4,456,959	1,437,457	3,537,637	16,111,529
Total assets and deferred outflows of resources	$ 778,300,316	$ 354,920,783	$ 371,982,750	$ 842,896,342
Liabilities and Deferred Inflows of Resources				
Current liabilities	$ 95,619,157	$ 17,331,159	$ 11,626,083	$ 20,923,114
Other liabilities	16,615,433	4,800,729	1,568,701	1,481,343
Long-term debt	294,206,042	111,660,823	179,093,978	512,135,393
Total liabilities	$ 406,440,632	$ 133,792,711	$ 192,288,762	$ 534,539,850
Deferred inflows of resources	6,844,310	2,424,026	1,853,667	3,136,975
Total liabilities and deferred inflows of resources	$ 413,284,942	$ 136,216,737	$ 194,142,429	$ 537,676,825
Net position				
Net investment in capital assets	$ 278,370,404	$ 161,294,129	$ 138,681,584	$ 216,036,743
Restricted	12,285,419	2,050,413	1,941,221	3,158,568
Unrestricted	74,359,551	55,359,504	37,217,516	86,024,206
Total net position	$ 365,015,374	$ 218,704,046	$ 177,840,321	$ 305,219,517

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Condensed Statement of Revenues, Expenses and Changes in Net Position

	2019			
	Electric	Gas	Water	Wastewater
Operating revenues	$558,369,583	$ 108,551,679	$ 58,073,479	$ 98,482,153
Operating expenses	497,928,942	76,977,721	32,340,065	40,970,691
Provision for depreciation	31,991,227	12,877,969	10,315,031	19,545,435
Total operating expenses	529,920,169	89,855,690	42,655,096	60,516,126
Operating income	28,449,414	18,695,989	15,418,383	37,966,027
Non-operating expense	(8,537,834)	(3,068,090)	(5,811,120)	(18,877,988)
Change in net position before capital contributions	19,911,580	15,627,899	9,607,263	19,088,039
Capital contributions	120,717	29,791	563,998	389,102
Change in net position	20,032,297	15,657,690	10,171,261	19,477,141
Net position				
Beginning of year	365,015,374	218,704,046	177,840,321	305,219,517
End of year	$385,047,671	$ 234,361,736	$ 188,011,582	$ 324,696,658

Condensed Statement of Revenues, Expenses and Changes in Net Position

	2018			
	Electric	Gas	Water	Wastewater
Operating revenues	$560,110,507	$ 114,539,188	$ 54,365,215	$ 94,715,764
Operating expenses	497,857,357	80,099,775	29,830,805	35,977,830
Provision for depreciation	35,430,800	12,717,222	10,379,928	19,137,860
Total operating expenses	533,288,157	92,816,997	40,210,733	55,115,690
Operating income	26,822,350	21,722,191	14,154,482	39,600,074
Non-operating expense	(9,351,637)	(3,813,875)	(5,985,484)	(20,043,786)
Change in net position before capital contributions	17,470,713	17,908,316	8,168,998	19,556,288
Capital contributions	119,992	20,125	49,129	278,222
Change in net position	17,590,705	17,928,441	8,218,127	19,834,510
Net position				
Beginning of year, as previously reported	345,253,775	200,006,747	169,034,244	284,390,014
Change in method of accounting for OPEB	2,170,894	768,858	587,950	994,993
Net position, beginning of year, as restated	347,424,669	200,775,605	169,622,194	285,385,007
End of year	$365,015,374	$ 218,704,046	$ 177,840,321	$ 305,219,517

Condensed Statement of Cash Flows

	2019			
	Electric	Gas	Water	Wastewater
Net cash provided by operating activities	$ 64,317,384	$ 30,955,487	$ 27,144,260	$ 62,428,523
Net cash used in capital and related financing activities	(68,089,843)	(30,264,126)	(25,849,294)	(74,220,488)
Net cash used in investing activities	(11,104,315)	(939,468)	(2,683,636)	(8,272,468)
Net decrease in cash and cash equivalents	(14,876,774)	(248,107)	(1,388,670)	(20,064,433)
Cash and cash equivalents, beginning of year	40,334,343	31,436,054	14,150,014	42,297,513
Cash and cash equivalents, end of year	$ 25,457,569	$ 31,187,947	$ 12,761,344	$ 22,233,080

Condensed Statement of Cash Flows

	2018			
	Electric	Gas	Water	Wastewater
Net cash provided by operating activities	$ 51,557,302	$ 35,529,580	$ 25,748,290	$ 57,717,293
Net cash used in capital and related financing activities	(50,954,932)	(18,097,897)	(21,982,580)	(39,967,945)
Net cash provided by investing activities	2,536,758	613,141	989,073	5,574,305
Net increase in cash and cash equivalents	3,139,128	18,044,824	4,754,783	23,323,653
Cash and cash equivalents, beginning of year	37,195,215	13,391,230	9,395,231	18,973,860
Cash and cash equivalents, end of year	$ 40,334,343	$ 31,436,054	$ 14,150,014	$ 42,297,513

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Knoxville Utilities Board
Required Supplementary Information - Schedule of Changes in Net Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 5,095,488	$ 4,607,486	$ 4,226,985	$ 4,157,062	$ 4,092,808
Interest	15,344,193	15,015,282	14,966,559	14,812,784	14,698,657
Differences between expected and actual experience	(605,649)	(1,087,161)	(2,233,762)	(1,890,334)	-
Changes of assumptions	-	(357,633)	(2,932,883)	-	-
Benefit payments, including refunds of member contributions	(15,274,814)	(14,969,979)	(14,138,511)	(15,350,926)	(15,533,167)
Net change in total pension liability	4,559,218	3,207,995	(111,612)	1,728,586	3,258,298
Total pension liability - beginning	207,598,733	204,390,738	204,502,350	202,773,764	199,515,466
Total pension liability - ending (a)	$ 212,157,951	$ 207,598,733	$ 204,390,738	$ 204,502,350	$ 202,773,764
Plan fiduciary net position					
Contributions - employer	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contributions - participants	2,081,125	1,488,632	555,075	487,546	475,854
Net investment income	(11,748,396)	32,360,219	13,788,263	(95,430)	22,292,369
Other additions	62,616	82,239	45,848	30,879	29,733
Benefit payments, including refunds of member contributions	(15,174,814)	(14,895,979)	(14,044,511)	(15,274,926)	(15,405,167)
Administrative expense	(445,916)	(385,282)	(441,332)	(397,160)	(378,085)
Death benefits	(100,000)	(74,000)	(94,000)	(76,000)	(128,000)
Net change in plan fiduciary net position**	(21,868,910)	22,862,426	5,052,489	(9,333,204)	12,795,245
Plan fiduciary net position - beginning**	227,377,105	204,514,679	199,462,190	208,795,394	196,000,149
Plan fiduciary net position - ending (b)**	$ 205,508,195	$ 227,377,105	$ 204,514,679	$ 199,462,190	$ 208,795,394
Plan's net pension liability - ending (a) - (b)	$ 6,649,756	$ (19,778,372)	$ (123,941)	$ 5,040,160	$ (6,021,630)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.53%	100.06%	97.54%	102.97%
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Plan's net pension liability as a percentage of covered payroll	15.78	(45.67%)	(0.28%)	11.34%	(13.66%)

Notes to Schedule:

* Information not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented in 2014.

** Excludes amounts related to 401(k) matching contributions.

Knoxville Utilities Board
Required Supplementary Information - Schedule of Employer Pension Contributions
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Actuarially determined contribution	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contribution in relation to the actuarially determined contribution	3,456,475	4,286,597	5,243,146	5,991,887	5,908,541
Contribution deficiency	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Contributions as a percentage of covered payroll	8.20%	9.90%	11.80%	13.48%	13.41%

Notes to Schedule:

Timing:	Actuarially determined contributions for a Plan year are based upon 50% of the amounts determined at the actuarial valuations for each of the two prior Plan years.
Valuation Dates:	January 1, 2017 and January 1, 2016

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Individual entry age
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 24 years remaining (25 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative.
Discount rate:	7.5%
Salary increases:	2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

* Schedule of Employer Contribution information is not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented 2014. Please refer to prior year's audited financial statements for prior methods and assumptions.

Knoxville Utilities Board
Required Supplementary Information – Schedule of Changes in Net OPEB Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended June 30	
	2019	**2018**
Total OPEB liability		
Service cost	$ 270,515	$ 202,603
Interest	3,624,737	3,295,240
Differences between expected and actual experience	999,098	1,324,769
Changes of assumptions	3,231,601	(397,180)
Benefit payments	(3,532,444)	(3,298,739)
Net change in total OPEB liability	4,593,507	1,126,693
Total OPEB liability - beginning	45,604,431	44,477,738
Total OPEB liability - ending (a)	$ 50,197,938	$ 45,604,431
Plan fiduciary net position		
Contributions - employer	$ -	$ -
Net investment income	2,981,928	3,705,473
Benefit payments	(3,532,444)	(3,298,739)
Administrative expense	(54,787)	(51,668)
Net change in plan fiduciary net position	(605,303)	355,066
Plan fiduciary net position - beginning	49,355,499	49,000,433
Plan fiduciary net position - ending (b)	$ 48,750,196	$ 49,355,499
Net OPEB liability - ending (a) - (b)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%
Covered employee payroll	$ 24,346,735	$ 23,677,080
Net OPEB liability as a percentage of covered employee payroll	5.95%	(15.84%)

Notes to Schedule:

* Information not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.

Knoxville Utilities Board
Required Supplementary Information – Schedule of Employer OPEB Contributions
June 30, 2019
(Unaudited)

	*Year ended June 30	
	2019	2018
Actuarially determined contribution	$ -	$ -
Contribution in relation to the annual required contribution	-	-
Contribution deficiency/(excess)	$ -	$ -
Covered employee payroll	$ 24,346,735	$ 23,677,080
Contributions as a percentage of covered employee payroll	0.00%	0.00%

Notes to Schedule:

Valuation Date:	January 1, 2017 and January 1, 2016
Timing:	Actuarially determined contribution rates are calculated based on the actuarial valuation completed 18 months before the beginning of the fiscal year.

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Entry age normal
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 19 years remaining as of January 1, 2017 (20 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative
Discount rate:	7.5%
Healthcare cost trend rate:	Pre-Medicare: 7.83% grading down to 4.5% over 19 years as of January 1, 2017; 8% to 4.5% over 20 years as of January 1, 2016 Medicare: 6.88% grading down to 4.5% over 19 years as of January 1, 2017; 7% to 4.5% over 20 years as of January 1, 2016 Administrative expenses: 3.0% per year
Salary increases:	From 2.8% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%
Investment rate of return:	7.5%
Retirement age:	2% at ages 50-57 and ages 50-55, at January 1, 2017 and January 1, 2016, respectively, grading up to 100% at age 70

* Schedule of Employer Contribution information is not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.
Please refer to prior year's audited financial statement for prior methods and assumptions.

Knoxville Utilities Board
Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement
Schedule of Changes in Total Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31		
	2018	2017	2016
Total pension liability			
Service cost	$ 941	$ 584	$ -
Interest (includes interest on service cost)	9,676	7,535	-
Changes of benefit terms	-	-	185,077
Differences between expected and actual experience	(36,125)	13,684	-
Changes of assumptions	(22,950)	73,461	-
Benefit payments, including refunds of member contributions	-	-	-
Net change in total pension liability	(48,458)	95,264	185,077
Total pension liability - beginning	280,341	185,077	-
Total pension liability - ending	$ 231,883	$ 280,341	$ 185,077
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747
Total pension liability as a percentage of covered payroll	0.55%	0.65%	0.42%

Notes to Schedule:

* There are no assets accumulated in a trust that meet the criteria in paragraph 4 of GASB 73 to pay related benefits.

Crime
Covers losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $5,000,000; $250,000 retention.

Directors' and Officers' Liability Insurance
Covers KUB personnel appropriately authorized to make decisions on behalf of KUB (including but not limited to Commissioners, President and CEO, Senior Vice Presidents, Vice Presidents, and Directors) for wrongful acts. Limits of coverage - $20,000,000; $1,000,000 corporate deductible, $0 individual deductible.

Employment Practices Liability
Coverage for costs related to actual or alleged employment practices violations for amounts exceeding specified amount ($500,000). Limits of coverage - $10,000,000.

Fiduciary
Covers losses resulting from wrongful acts related to KUB's Pension, 401(k), OPEB Trust funds, and Medical Plan. Limits of coverage - $10,000,000; $150,000 deductible.

Pollution Legal Liability
New conditions coverage for losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - $20,000,000.

Property Insurance
This coverage provides protection of KUB's property for fire, extended coverage, vandalism and malicious mischief, and coverage on boilers and machinery. Also included are flood and earthquake damage and mechanical failure. Limits of coverage - $250,000,000 per occurrence (subject to certain sublimits); $2,500,000 deductible per occurrence.

Travel Accident
Covers losses related to employees' business travel. Limits of coverage - $1,000,000 aggregate.

Excess Insurance for General Liability
As a government entity, KUB's liability is limited under the Tennessee Governmental Tort Liability Act (TCA §29-20-403). KUB is self-insured for up to the first $700,000 of any accident and has insurance of $1,000,000 above this retention.

Excess Insurance for Workers' Compensation
Covers all losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - Statutory; stop loss coverage applies for aggregate losses over $5,000,000.

Employee Health Plan Stop Loss Coverage
KUB's employee health plan is self-funded. KUB has purchased stop loss insurance, which covers KUB's exposure to annual expenses in excess of $500,000 per individual participant.

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Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Board of Commissioners
Knoxville Utilities Board
Knoxville, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Knoxville Utilities Board (KUB), a component unit of the City of Knoxville, Tennessee, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise KUB's basic financial statements, and have issued our report thereon dated October 30, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered KUB's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of KUB's internal control. Accordingly, we do not express an opinion on the effectiveness of KUB's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of KUB's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Commissioners
Knoxville Utilities Board
Knoxville, Tennessee

Compliance and Other Matters

As part of obtaining reasonable assurance about whether KUB's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*, but other matters that are required to be reported under the State of Tennessee Audit Manual are referenced as 2019-01, 2019-02, and 2019-03 in the accompanying Schedule of Findings and Questioned Costs.

Purpose of Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of KUB's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering KUB's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Section I -- Summary of Auditor's Results

Financial Statements

Type of auditors' report issued:	Unmodified
Internal control over financial reporting: Material weakness(es) identified?	No
Significant deficiency(s) identified not considered to be material weaknesses?	None reported
Noncompliance material to financial statements:	No

Section II -- Financial Statement Findings

None reported.

Section III – Findings Required by the State of Tennessee Audit Manual

2019-01

Condition, Criteria, Cause, Questioned Costs and Effect

In July 2018, an employee in the KUB Underground Construction Department in the Wastewater Division used a KUB-owned backhoe to take a front-loader full of asphalt off KUB property for use at his personal residence. The value of the asphalt is estimated at $200.

Recommendations

None

Management's Response and Corrective Action Plan

The employee resigned in lieu of termination and the stolen materials were written-off.

2019-02

Condition, Criteria, Cause, Questioned Costs and Effect

In November 2018, it was discovered that an employee in the KUB Electrical Engineering Department in the Electric Division had falsified timesheets resulting in $7,907.79 of overpayments for false time reported.

Recommendations

None

Management's Response and Corrective Action Plan

The employee resigned in lieu of termination. The employee paid full restitution of $7,907.79 to KUB.

2019-03

Condition, Criteria, Cause, Questioned Costs and Effect

In May 2019, it was discovered that an employee in the KUB Gas Engineering Department in the Gas Division had falsified timesheets resulting in $2,740.50 of overpayments for false time reported.

Recommendations

None

Management's Response and Corrective Action Plan

The employee resigned in lieu of termination. The employee paid full restitution of $2,740.50 to KUB.

Section IV -- Summary Schedule of Prior Year Audit Findings

Not applicable as there were no prior year findings reported.

Knoxville Utilities Board

Electric Division

Financial Statements and Supplemental Information
June 30, 2019 and 2018

KUB Board of Commissioners

Kathy Hamilton - Chair

Tyvi Small - Vice Chair

Dr. Jerry W. Askew

Celeste Herbert

Sara Hedstrom Pinnell

Adrienne Simpson-Brown

John Worden

Management

Gabriel Bolas II
President and
Chief Executive Officer

Mark Walker
Senior Vice President and
Chief Financial Officer

Susan Edwards
Senior Vice President and
Chief Administrative Officer

Derwin Hagood
Senior Vice President and
Chief Operating Officer

Eddie Black
Senior Vice President and
Chief Technology Officer

John Williams
Vice President of
Construction

Mike Bolin
Vice President of Utility
Advancement

Julie Childers
Vice President and
Century II Administrator

John Gresham
Vice President of
Operations

Knoxville Utilities Board Electric Division
Index
June 30, 2019 and 2018

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Independent Auditor's Report

Board of Commissioners
Electric Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited the accompanying financial statements of the Electric Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements as listed in the index.

Management's Responsibility for the Financial Statements

The Division's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Division's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Electric Division of the Knoxville Utilities Board as of June 30, 2019 and 2018, and the changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Board of Commissioners
Electric Division of the Knoxville Utilities Board
Knoxville, Tennessee

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 25 and the required supplementary information on pages 62 through 66 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Division's basic financial statements. The supplemental information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplemental information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Electric Division and do not purport to, and do not, present fairly the financial position of the Knoxville Utilities Board, as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2019, on our consideration of the Division's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control over financial reporting and compliance.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions. The Electric Division (Division) provides services to certain customers in Knox County and in seven surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the Federal Energy Regulatory Commission and the Governmental Accounting Standards Board, as applicable. The financial statements present only the Electric Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Division's discussion and analysis is designed to (a) assist the reader in focusing on significant financial issues, (b) provide an overview of the Division's financial activity, (c) identify major changes in the Division's financial position, and (d) identify any financial concerns.

The Division's Management Discussion and Analysis (MD&A) focuses on the fiscal year ending June 30, 2019 activities, resulting changes and current known facts, and should be read in conjunction with the Division's financial statements.

Electric Division Highlights

System Highlights

KUB serves 208,982 electric customers over a 688 square mile service area and maintains 5,381 miles of service lines and 63 electric substations to provide 5.5 million megawatt hours to its customers annually.

KUB's utility system was impacted by record rainfall in fiscal year 2019, including record-setting rainfall and widespread flooding in February 2019. System reliability was affected, resulting in 2.42 hours of service interruption for the average customer. KUB expects to receive reimbursements in fiscal year 2020 from the Federal Emergency Management Agency (FEMA) to partially offset the cost of the 2019 storm and flood event.

KUB's electric system record peak in demand remains 1,328 megawatt hours, set in February 2015.

KUB has added 6,139 electric system customers over the past three years representing annual growth of one percent. In fiscal year 2019, 2,549 customers were added.

The typical residential customer's average monthly electric bill was $108.38 as of June 30, 2019, representing an increase of $1.45 compared to June 30, 2018. The slight increase in the monthly bill during fiscal year 2019 was the net result of the flow through of TVA wholesale rate adjustments, previously over recovered wholesale power costs and the October 2018 electric rate increase.

KUB's electric system maintains a Diamond level designation by the American Public Power Association's (APPA) Reliable Public Power Provider (RP3) program, the highest level of recognition of the program.

Century II Infrastructure Program

Century II is KUB's proactive long-range program to improve and maintain its electric, natural gas, water and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each utility system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In fiscal year 2015, KUB concluded the smart grid pilot project, of which a portion of the project was funded by a United States Department of Energy Smart Grid Investment Grant (SGIG). This grant was received by KUB in 2009 as part of the American Reinvestment and Recovery Act (ARRA). Based upon the success of that pilot, KUB formed a plan to move forward with a Century II Grid Modernization initiative, which includes advanced metering for all KUB customers, a telecommunication system linking critical KUB infrastructure, and an increased investment in automation technology to help operate KUB's energy and water distribution systems. Over the course of ten years, KUB plans to spend approximately $124.4 million on Grid Modernization, of which the Electric Division's share is approximately $80.1 million. The deployment is funded in large part by debt issues and system revenues. As of June 30, 2019, KUB completed its third year of a four-year advanced meter deployment. KUB replaced approximately 75 percent of its electric meters, spending $37.1 million on the deployment. The advanced meter deployment is on track and on budget.

In May 2017, a new Century II funding resolution was adopted by the KUB Board to express the continued commitment to funding Century II programs for the next ten years. The funding will be achieved through a combination of rate increases and debt issues supplemented by cost savings and new revenue from net customer additions.

In June 2017, the Board approved the next phase of electric rate increases to support the Century II program. The first two of the three approved electric rate increases went into effect in October 2017 and October 2018, generating $10.9 million and $11.2 million in additional annual revenue, respectively. The remaining rate increase is effective in October 2019 and is expected to provide an additional $5.7 million in annual revenue to assist with the funding of the Electric Division.

During the fiscal year, KUB replaced 2,457 poles, exceeding the target level of 2,400 poles, and replaced 18.9 miles of underground electric cable, exceeding the target level of 17 miles, while staying on track with Century II goals and within the Electric Division's total capital budget.

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Financial Highlights

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's Change in Net Position increased $20 million in fiscal year 2019. Comparatively, net position increased by $17.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by an additional $2.2 million. The change resulted in a total increase of $19.8 million in the Division's net position.

Operating revenue decreased $1.7 million or 0.3 percent over the prior fiscal year. The decrease in operating revenue was the result of additional revenue from KUB's October 2018 electric rate increase, the flow through of TVA rate adjustments, a one percent decrease in billed sales and the flow through of prior year over recovered purchased power costs to KUB's electric customers. KUB's over recovered purchased power cost decreased by $2 million in fiscal year 2019. KUB flows changes to wholesale power rates directly through to its retail electric rates via its Purchased Power Adjustment.

Seventy six percent of Electric Division sales revenue was used to purchase electric power from TVA for the fiscal year ended June 30, 2019. Purchased power expense decreased $8.2 million compared to last fiscal year. Billed power sales were down one percent compared to fiscal year 2018, as milder winter weather offset warmer summer and spring seasons.

Margin on electric sales (operating revenue less purchased power expense) increased $6.4 million or 4.8 percent, reflecting additional revenue from the KUB electric rate increase.

Operating expenses (excluding purchased power expense) increased $4.8 million. Operating and maintenance (O&M) expenditures increased $7.2 million or 13.3 percent. Depreciation expense decreased $3.4 million or 9.7 percent. Taxes and tax equivalents were $1 million, or 5.7 percent, higher than the prior fiscal year.

Interest income was $1 million more than the prior fiscal year, due to higher short-term interest rates. Interest expense increased $1 million or 9.5 percent, due to the net effect of interest expense on long-term bonds issued in August 2018.

Capital contributions were consistent with the prior fiscal year, reflecting a steady level of electric system assets provided to KUB during the fiscal year.

Total capital assets (net) increased $52.5 million or 9 percent over the end of the last fiscal year, reflecting pole replacements and other distribution system improvements as part of KUB's Century II electric program.

During fiscal year 2019, KUB sold $40 million in electric system revenue bonds for the purpose of funding electric system capital improvements.

Long-term debt represented 45.6 percent of the Division's capital structure as of June 30, 2019, compared to 44.7 percent last year. Capital structure equals long-term debt (including the current and long-term portion of any revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 3.41. Maximum debt service coverage was 3.17.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's Change in Net Position increased $17.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by an additional $2.2 million. The change resulted in a total increase of $19.8 million in the Division's net position. Comparatively, net position increased by $10.7 million in fiscal year 2017.

Operating revenue increased $13.7 million or 2.5 percent over the prior fiscal year. The increase in operating revenue was the result of additional revenue from KUB's October 2017 electric rate increase, the flow through of TVA rate adjustments, a 1.5 percent increase in billed sales and the flow through of prior year over recovered purchased power costs to KUB's electric customers. KUB flows changes to wholesale power rates directly through to its retail electric rates via its Purchased Power Adjustment.

Seventy eight percent of Electric Division sales revenue was used to purchase electric power from TVA for the fiscal year ended June 30, 2018. Purchased power expense increased $4.1 million compared to last fiscal year. Mild summer and spring months offset a colder winter in the electric system's service territory to result in a 1.5 percent increase in billed power sales compared to fiscal year 2017.

Margin on electric sales (operating revenue less purchased power expense) increased $9.6 million or 7.7 percent, reflecting additional revenue from the KUB electric rate increase.

Operating expenses (excluding purchased power expense) increased $0.4 million. Operating and maintenance (O&M) expenditures decreased $4.4 million or 7.5 percent. Depreciation expense increased $4 million or 12.7 percent. Taxes and tax equivalents were $0.8 million, or 4.7 percent, higher than the prior fiscal year.

Interest income was $0.7 million more than the prior fiscal year, due to higher investment returns. Interest expense increased $0.7 million or 7.4 percent, due to the net effect of interest expense on long-term bonds issued in August 2017 and savings on refunding of outstanding bonds.

Capital contributions decreased $1.3 million, reflecting a lower level of electric system assets provided to KUB during the fiscal year.

Total capital assets (net) increased $33 million or 6 percent over the end of the last fiscal year reflecting pole replacements and other distribution system improvements as part of KUB's Century II electric program.

During fiscal year 2018, KUB sold $40 million in electric system revenue bonds for the purpose of funding electric system capital improvements.

Long-term debt represented 44.7 percent of the Division's capital structure as of June 30, 2018, compared to 43.5 percent last year. Capital structure equals long-term debt (including the current and long-term portion of any revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 3.74. Maximum debt service coverage was 3.47.

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Knoxville Utilities Board Electric Division - Financial Statements

The Division's financial performance is reported under three basic financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows.

Statement of Net Position

The Division reports its assets, deferred outflows of resources, liabilities, deferred inflows of resources and net position in the Statement of Net Position. Assets are classified as current, restricted, electric plant in service, or other assets.

Liabilities are classified as current, other, or long-term debt. Net position is classified as net investment in capital assets, restricted, or unrestricted. Net position tells the user what the Division has done with its accumulated earnings, not just the balance.

Net investment in capital assets is the net book value of all capital assets less the outstanding balances of debt used to acquire, construct, or improve those assets.

Restricted net position includes assets that have been limited to specific uses by the Division's bond covenants or through resolutions passed by the KUB Board.

Unrestricted net position is a residual classification; the amount remaining after reporting net position as either invested in capital or restricted is reported there.

Statement of Revenues, Expenses and Changes in Net Position

The Division reports its revenues and expenses (both operating and non-operating) on the Statement of Revenues, Expenses and Changes in Net Position. In addition, any capital contributions or assets donated by developers are reported on this statement.

Total revenue less total expense equals the change in net position for the reporting period. Net position at the beginning of the period is increased or decreased, as applicable, by the change in net position for the reporting period.

The change in net position for the reporting period is added to the net position segment of the Statement of Net Position.

Statement of Cash Flows

The Division reports its cash flows from operating activities, capital and related financing activities, and investing activities on its Statement of Cash Flows. This statement tells the user the Division's sources and uses of cash during the reporting period.

The statement indicates the Division's beginning cash balance and ending cash balance and how it was either increased or decreased during the reporting period.

The statement also reconciles cash flow back to operating income as it appears on the Statement of Revenues, Expenses and Changes in Net Position.

Condensed Financial Statements

Statement of Net Position

The following table reflects the condensed Statement of Net Position for the Electric Division compared to the prior two fiscal years.

Statements of Net Position
As of June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Current, restricted and other assets	$ 175,145	$ 192,101	$ 169,683
Capital assets, net	634,286	581,742	548,724
Deferred outflows of resources	12,340	4,457	7,909
Total assets and deferred outflows of resources	821,771	778,300	726,316
Current and other liabilities	114,634	112,235	112,004
Long-term debt outstanding	320,244	294,206	266,531
Deferred inflows of resources	1,845	6,844	2,528
Total liabilities and deferred inflows of resources	436,723	413,285	381,063
Net position			
Net investment in capital assets	300,563	278,370	275,291
Restricted	13,610	12,285	11,360
Unrestricted	70,875	74,360	58,602
Total net position	$ 385,048	$ 365,015	$ 345,253

Normal Impacts on Statement of Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Net Position presentation.

- Change in net position (from Statement of Revenues, Expenses and Changes in Net Position): impacts (increase/decrease) current and other assets and/or capital assets and unrestricted net position.

- Issuing debt for capital: increases deferred outflows of resources and long-term debt.

- Spending debt proceeds on new capital: reduces current assets and increases capital assets.

- Spending of non-debt related current assets on new capital: (a) reduces current assets and increases capital assets and (b) reduces unrestricted net position and increases net investment in capital assets.

- Principal payment on debt: (a) reduces current and other assets and reduces long-term debt and (b) reduces unrestricted net position and increases net investment in capital assets.

- Reduction of capital assets through depreciation: reduces capital assets and net investment in capital assets.

Impacts and Analysis

Current, Restricted and Other Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Current, restricted and other assets decreased $17 million or 8.8 percent. The change reflects a decrease in the actuarially determined net pension asset of $9.5 million, a decrease in accounts receivable of $5.1 million, a decrease in general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments) of $2.4 million and a decrease in the actuarially determined net OPEB asset of $1.8 million. These decreases were offset by a net increase in operating contingency reserves of $1.4 million.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current, restricted and other assets increased $22.4 million or 13.2 percent. The change reflects an increase in the actuarially determined net pension asset of $9.4 million, an increase in accounts receivable of $5.3 million, an increase in inventories of $4.2 million and a net increase in operating contingency reserves of $3.4 million. These increases were offset by a decrease in general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments) of $1.9 million.

Capital Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Capital assets, net of depreciation, increased $52.5 million or 9 percent. Major capital expenditures included $29.5 million for distribution system improvements, $13 million for building improvements, $10.3 million for pole replacements, $9.2 million for Grid Modernization including Supervisory Control and Data Acquisition (SCADA) system upgrades and $2.6 million for installation or replacement of electric services.

Fiscal Year 2018 Compared to Fiscal Year 2017

Capital assets, net of depreciation, increased $33 million or 6 percent. Major capital expenditures included $31.3 million for distribution system improvements, $8.6 million for pole replacements, $7.5 million for building improvements, $7 million for Grid Modernization including Supervisory Control and Data Acquisition (SCADA) system upgrades and $3.5 million for installation or replacement of electric services.

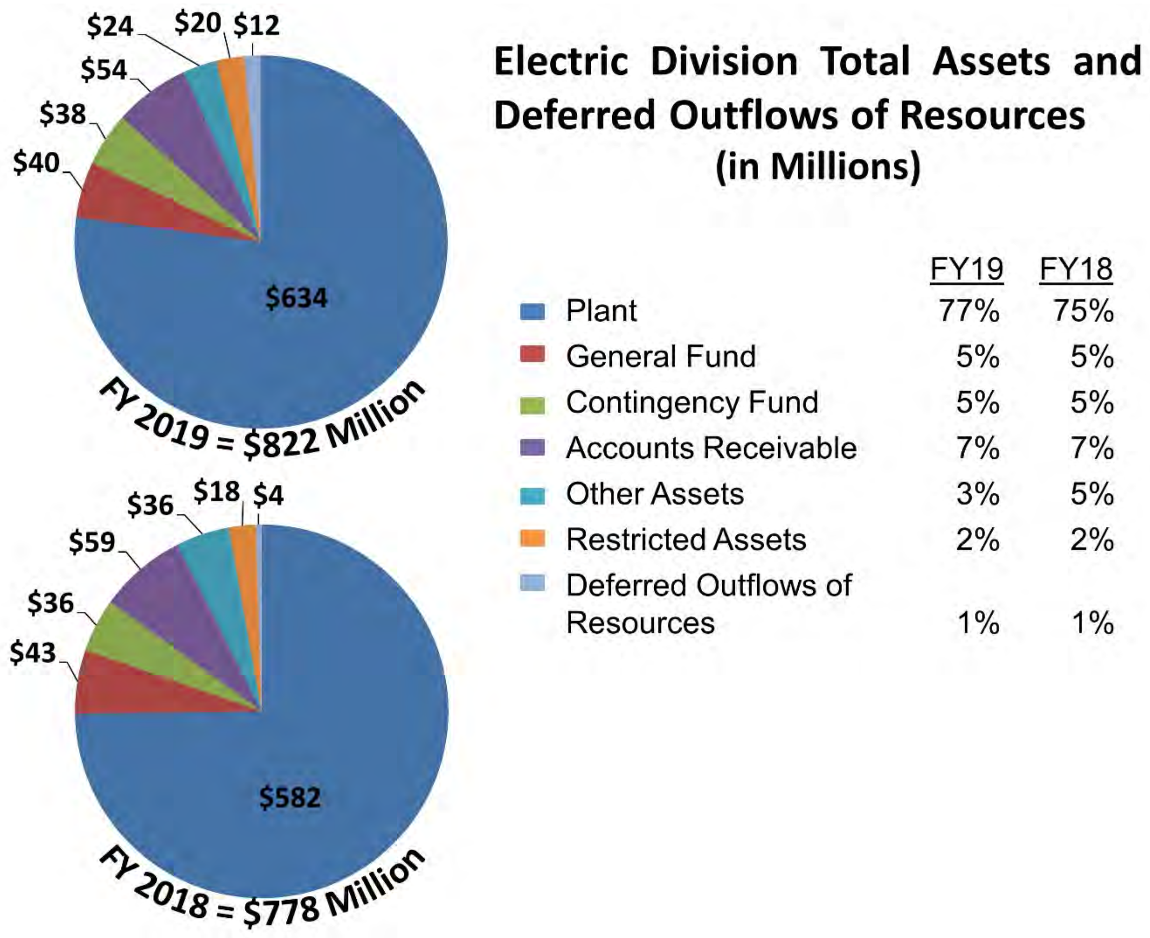
Deferred Outflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred outflows of resources increased $7.9 million compared to the prior fiscal year primarily due to an increase in pension outflow of $7.3 million.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred outflows of resources decreased $3.5 million compared to the prior fiscal year primarily due to a decrease in pension outflow of $3.4 million.



Electric Division Total Assets and Deferred Outflows of Resources (in Millions)

	FY19	FY18
🟦 Plant	77%	75%
🟥 General Fund	5%	5%
🟩 Contingency Fund	5%	5%
🟪 Accounts Receivable	7%	7%
🟦 Other Assets	3%	5%
🟧 Restricted Assets	2%	2%
🟦 Deferred Outflows of Resources	1%	1%

Current and Other Liabilities

Fiscal Year 2019 Compared to Fiscal Year 2018

Current and other liabilities increased $2.4 million. Net pension liability increased $3.2 million, customer advances for construction increased $2.8 million, and the current portion of revenue bonds and associated accrued interest increased $1.8 million. These increases were offset by a decline in accounts payable of $1.8 million and a decline in accrued expenses of $2.2 million. The outstanding balance on TVA conservation loans declined by $1.3 million, as KUB ceased issuance of any new loans in fiscal year 2016.

KUB over recovered $2.7 million in wholesale power costs from its customers in fiscal year 2019, as compared to a $4.7 million over recovery in fiscal year 2018. This over recovery of costs will be flowed back to KUB's electric customers during the next fiscal year through adjustments to rates via the Purchased Power Adjustment.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current and other liabilities increased $0.2 million. Accrued expenses increased $1.6 million, the current portion of revenue bonds and associated accrued interest increased $1.6 million and customer advances for construction increased $1.3 million. These increases were offset by a decline in accounts payable of $3.6 million. The outstanding balance on TVA conservation loans declined by $1.8 million, as KUB ceased issuance of any new loans in fiscal year 2016.

KUB over recovered $4.7 million in wholesale power costs from its customers in fiscal year 2018, as compared to a $4 million over recovery in fiscal year 2017. This over recovery of costs will be flowed back to KUB's electric customers during the next fiscal year through adjustments to rates via the Purchased Power Adjustment.

Long-Term Debt

Fiscal Year 2019 Compared to Fiscal Year 2018

Long-term debt increased $26 million or 8.9 percent. Electric system revenue bonds of $40 million, sold in August 2018, were offset by the scheduled repayment of debt.

Fiscal Year 2018 Compared to Fiscal Year 2017

Long-term debt increased $27.7 million or 10.4 percent. Electric system revenue bonds of $40 million, sold in August 2017, were offset by the scheduled repayment of debt.

Deferred Inflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred inflows decreased $5 million compared to the prior fiscal year due to differences in pension inflows.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred inflows increased $4.3 million compared to the prior fiscal year due to differences in pension inflows.

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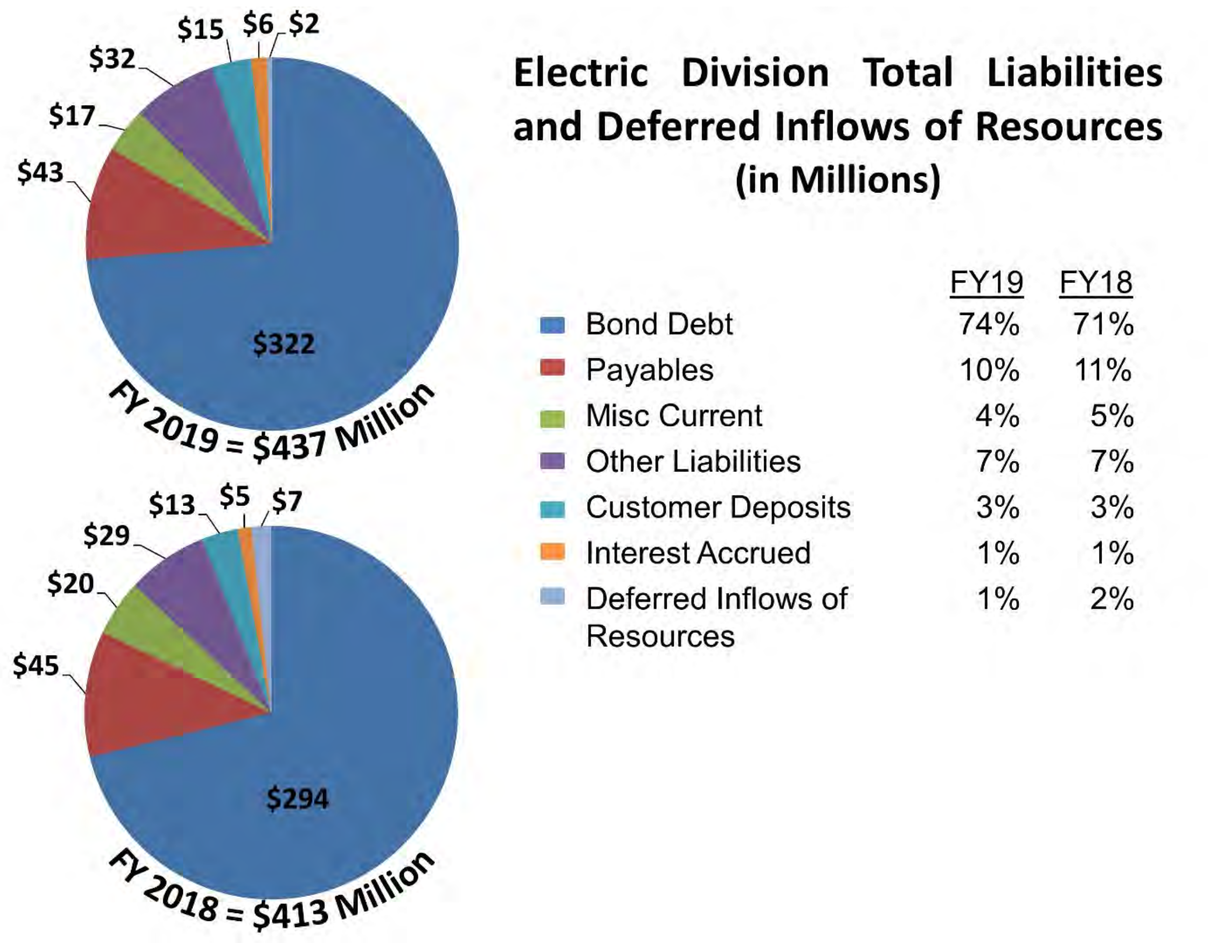

Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

Unrestricted net position decreased $3.5 million, primarily due to the $18.7 million decrease in current and other assets. This decrease is offset by a decrease in deferred inflows of $5 million and an increase in deferred outflows of $8.2 million related to pension and OPEB. Net investment in capital assets increased by $22.2 million or 8 percent. The increase was primarily the result of an increase of $52.5 million in net electric plant additions offset by an increase in the current portion of revenue bonds and total long-term debt of $27.4 million. Restricted net position increased $1.3 million due to the net increase of the electric bond fund and the associated interest payable.

Fiscal Year 2018 Compared to Fiscal Year 2017

Unrestricted net position increased $15.8 million, primarily due to the $20.8 million increase in current and other assets. Net investment in capital assets increased by $3.1 million or 1.1 percent. The increase was primarily the result of an increase of $33 million in net electric plant additions offset by an increase in the current portion of revenue bonds and total long-term debt of $28.6 million. Restricted net position increased $0.9 million due to the net increase of the electric bond fund and the associated interest payable.

Statement of Revenues, Expenses and Changes in Net Position

The following table reflects the condensed Statement of Revenues, Expenses and Changes in Net Position for the Electric Division compared to the prior two fiscal years.

Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Operating revenues	$ 558,370	$ 560,111	$ 546,364
Less: Purchased power expense	417,675	425,841	421,727
Margin from sales	140,695	134,270	124,637
Operating expenses			
Distribution	35,540	35,020	36,526
Customer service	7,160	6,124	6,641
Administrative and general	18,844	13,173	15,522
Depreciation	31,991	35,431	31,450
Taxes and tax equivalents	18,711	17,700	16,908
Total operating expenses	112,246	107,448	107,047
Operating income	28,449	26,822	17,590
Interest income	2,667	1,635	899
Interest expense	(11,704)	(10,692)	(9,954)
Other income/(expense)	500	(294)	731
Change in net position before capital contributions	19,912	17,471	9,266
Capital contributions	121	120	1,420
Change in net position	$ 20,033	$ 17,591	$ 10,686

Normal Impacts on Statement of Revenues, Expenses and Changes in Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Revenues, Expenses and Changes in Net Position presentation.

- Operating revenue is largely determined by the volume of electric power sales for the fiscal year. Any change (increase/decrease) in retail electric rates would also be a cause of change in operating revenue.

- Purchased power expense is determined by volume of power purchases from TVA for the fiscal year. Also, any change (increase/decrease) in TVA wholesale power rates would result in a change in purchased power expense.

- Operating expenses (distribution, customer service, administrative and general) are normally impacted by changes in areas including, but not limited to, labor costs (staffing, wage rates), active employee and retiree medical costs, and overhead line maintenance (tree trimming, pole inspection, etc.).

- Depreciation expense is impacted by plant additions and retirements during the fiscal year.

- Taxes and tax equivalents are impacted by plant additions/retirements, changes in property tax rates, and margin (operating revenue less purchased power expense) levels.

- Interest income is impacted by the level of interest rates and investments.

- Interest expense on debt is impacted by the level of outstanding debt and the interest rates on the outstanding debt.

- Other income/(expenses) is impacted by miscellaneous non-operating revenues and expenses.

- Capital contributions are impacted by a donation of facilities/infrastructure to KUB by developers and governmental agencies. The contributions are recognized as revenue and recorded as plant in service based on the fair market value of the asset(s).

Impacts and Analysis

Change in Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's Change in Net Position increased $20 million in fiscal year 2019. Comparatively, net position increased $17.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $2.2 million. The change resulted in a total increase of $19.8 million in the Division's net position.

The higher earnings were attributable to the net effect of a $6.4 million increase in margin on sales, a $1 million increase in interest income offset by a $1 million increase in interest expense and a $4.8 million increase in operating expenses.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's Change in Net Position increased $17.6 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $2.2 million. The change resulted in a total increase of $19.8 million in the Division's net position. Comparatively, net position increased by $10.7 million in fiscal year 2017.

The higher earnings were attributable to the net effect of a $9.6 million increase in margin on sales, a $0.7 million increase in interest income offset by a $0.7 million increase in interest expense and a $0.4 million increase in operating expenses.

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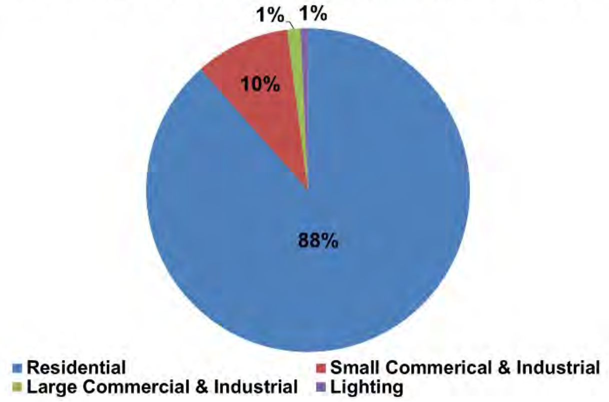
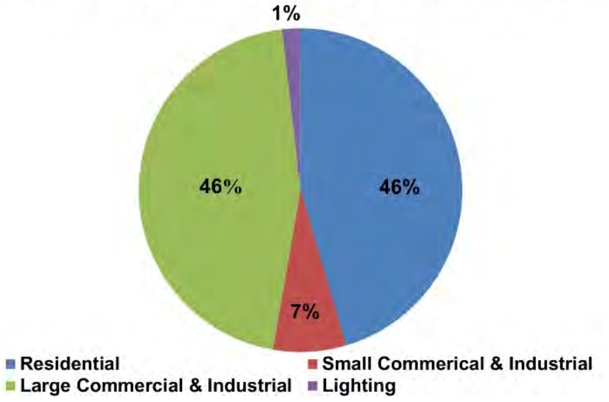
Margin from Sales

Fiscal Year 2019 Compared to Fiscal Year 2018

Margin on electric sales grew $6.4 million, reflecting increased revenue due to the October 2018 rate increase.

Operating revenue decreased $1.7 million or 0.3 percent, reflecting the net result of additional revenue from KUB’s October 2018 electric rate increase, the flow through of previously over recovered wholesale power costs, and the flow through of TVA rate adjustments. Billed power sales were down one percent compared to fiscal year 2018, as the impact from the closure of two large customers was offset by a warm spring and summer. Purchased power expense decreased $8.2 million over last year.


FY 2019 Total Electric Customers = 208,982


FY 2019 Electric Sales = 5.4 million MWh

Residential customers represented 88 percent of total electric system customers and accounted for 46 percent of electric sales volumes for the year. Large commercial and industrial customers also accounted for 46 percent of electric sales volumes, though volumes decreased two percent partially due to the closure of Tennova’s Physicians Regional Medical Center campus in North Knoxville. KUB’s ten largest electric customers accounted for 18 percent of KUB’s billed volumes. Those ten customers represent two industrial and eight commercial customers, including five governmental customers. Sales to the University of Tennessee, KUB’s largest commercial/governmental customer, accounted for 4.5 percent of total electric system sales.

KUB has added 6,139 electric system customers over the past three years, representing annual growth of one percent. Electric billed sales volumes have remained consistent over the past three years. Fiscal year 2019 customer growth was 2,549.

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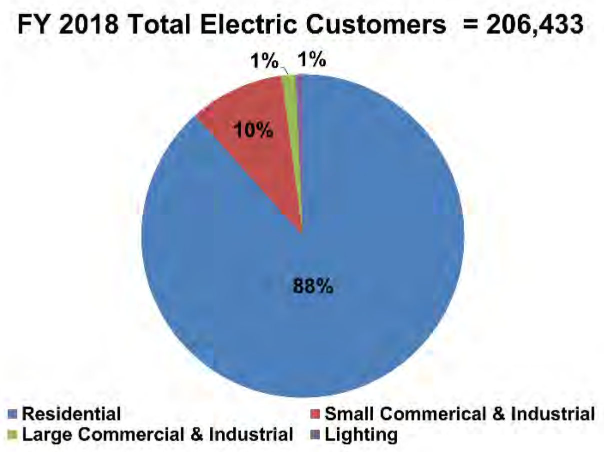
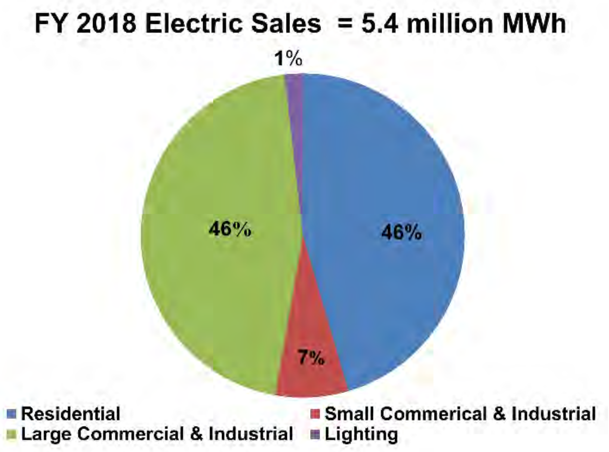
Fiscal Year 2018 Compared to Fiscal Year 2017

Margin on electric sales grew $9.6 million, reflecting increased revenue due to the October 2017 rate increase.

Operating revenue increased $13.7 million or 2.5 percent, reflecting the net result of additional revenue from KUB's October 2017 electric rate increase, the flow through of previously over recovered wholesale power costs, and the flow through of TVA rate adjustments. A colder winter experienced by the service area than the prior fiscal year resulted in a 1.5 percent increase in billed power sales volumes, which finished the fiscal year at 5.4 million MWh. Purchased power expense increased $4.1 million over last year.





Residential customers represented 88 percent of total electric system customers and accounted for 46 percent of electric sales volumes for the year. Large commercial and industrial customers accounted for the largest portion of total sales volumes for the year, which was consistent with the prior year due to a steady customer base. KUB's ten largest electric customers accounted for 19 percent of KUB's billed volumes. Those ten customers represent two industrial and eight commercial customers, including five governmental customers. Sales to Gerdau Ameristeel, KUB's largest industrial customer, accounted for 5.9 percent of total electric system sales.

KUB has added 5,581 electric system customers over the past three years, representing annual growth of one percent. Electric billed sales volumes have remained consistent over the past three years. Fiscal year 2018 customer growth was 1,345.

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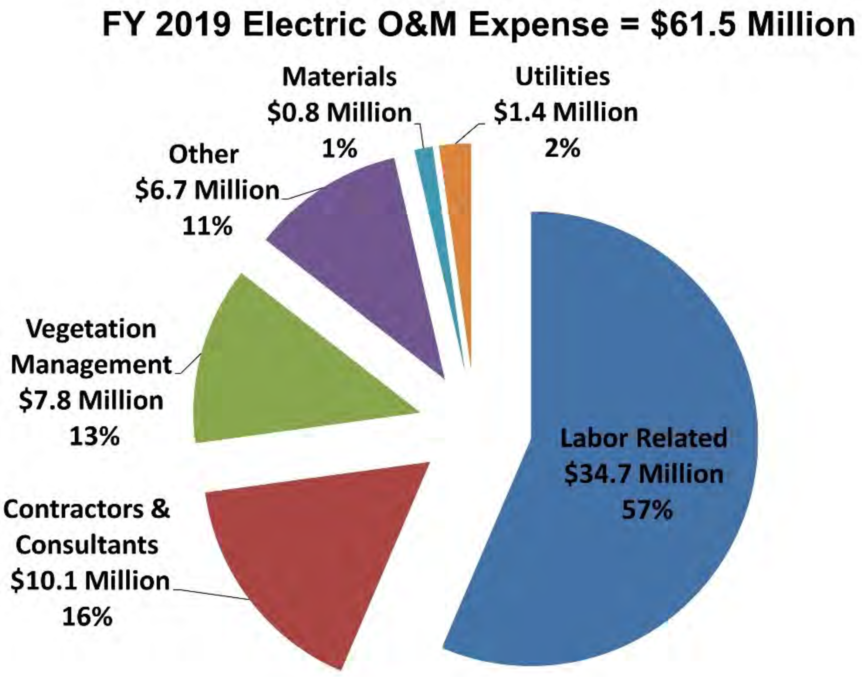
Operating Expenses

Fiscal Year 2019 Compared to Fiscal Year 2018

Operating expenses (excluding purchased power expense) increased $4.8 million, compared to fiscal year 2018. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as distribution, customer service and administrative and general.

- Distribution expenses increased $0.5 million or 1.5 percent, primarily due to increased labor related expenses.
- Customer service expenses increased $1 million, primarily due to increased outside contractor use.
- Administrative and general expenses increased $5.7 million, primarily due to higher labor related expenses including higher pension expenses, reflecting impact of investment losses on Pension Trust assets in 2018.

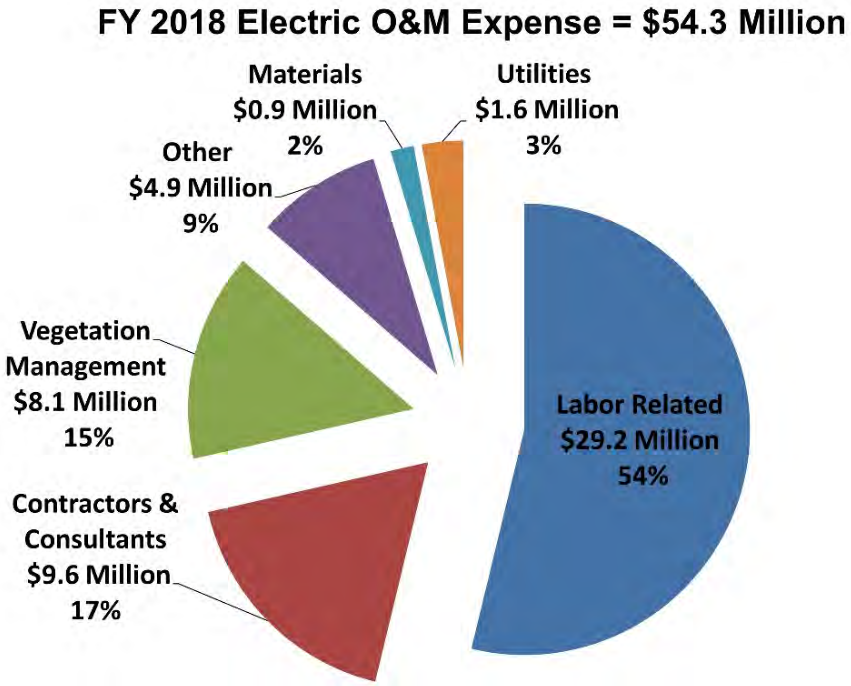


- Depreciation expense for fiscal year 2019 decreased $3.4 million or 9.7 percent. This decrease was primarily attributable to the sale of streetlight assets to the City of Knoxville.
- Taxes and tax equivalents were $1 million higher than the prior fiscal year primarily due to increased plant in service levels.

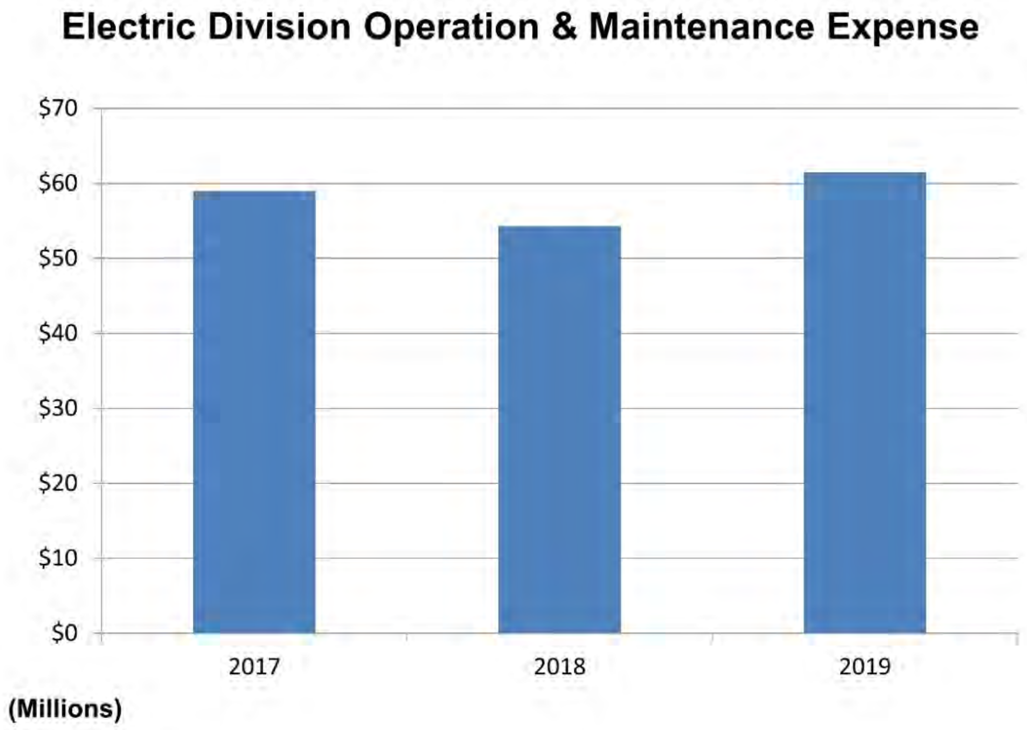
Fiscal Year 2018 Compared to Fiscal Year 2017

Operating expenses (excluding purchased power expense) increased $0.4 million, compared to fiscal year 2017. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as distribution, customer service and administrative and general.

- Distribution expenses decreased $1.5 million or 4.1 percent, primarily due to lower outside contractor use.
- Customer service expenses decreased $0.5 million from the prior year, primarily due to less outside contractor use.
- Administrative and general expenses decreased $2.3 million or 15.1 percent, primarily due to lower labor related expenses.



- Depreciation expense for fiscal year 2018 increased $4 million or 12.7 percent. This increase was primarily attributable to Century II initiatives and the impairment of meters due to the Grid Modernization project that calls for accelerated depreciation of meters being replaced as part of the project.
- Taxes and tax equivalents were $0.8 million higher than the prior fiscal year primarily due to increased plant in service levels.



Other Income and Expense

Fiscal Year 2019 Compared to Fiscal Year 2018

Interest income increased $1 million compared to the prior fiscal year, primarily due to increases in short-term interest rates over the prior fiscal year.

Interest expense increased $1 million or 9.5 percent, reflecting the impact of interest expense from new revenue bonds sold during the fiscal year.

Other income (net) increased $0.8 million, primarily due to mark-to-market adjustments on investments.

The Division's capital contributions were consistent, reflecting a steady level of developer donated assets compared to the prior fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Interest income increased $0.7 million compared to the prior fiscal year, primarily due to increases in short-term interest rates over the prior fiscal year.

Interest expense increased $0.7 million or 7.4 percent, reflecting the net effect of interest expense from new revenue bonds sold during the fiscal year and savings on refunding of outstanding bonds.

Other income (net) decreased $1 million, primarily due to the prior year recognition of $0.9 million in non-operating income for the reimbursement by FEMA to offset the cost of restoration expenses related to a May 2017 storm event.

The Division's capital contributions decreased $1.3 million due to less donated assets compared to the prior fiscal year.

Capital Assets

Capital Assets
As of June 30
(Net of Depreciation)

(in thousands of dollars)	**2019**	**2018**	**2017**
Distribution Plant			
Services and Meters	$ 41,665	$ 31,210	$ 22,959
Electric Station Equipment	52,974	54,695	53,178
Poles, Towers and Fixtures	137,804	127,343	113,640
Overhead Conductors	108,965	99,761	90,886
Line Transformers	61,784	61,446	60,424
Other Accounts	107,268	104,435	113,948
Total Distribution Plant	$ 510,460	$ 478,890	$ 455,035
General Plant	28,442	27,821	30,532
Total Plant Assets	$ 538,902	$ 506,711	$ 485,567
Work In Progress	95,384	75,031	63,157
Total Net Plant	$ 634,286	$ 581,742	$ 548,724

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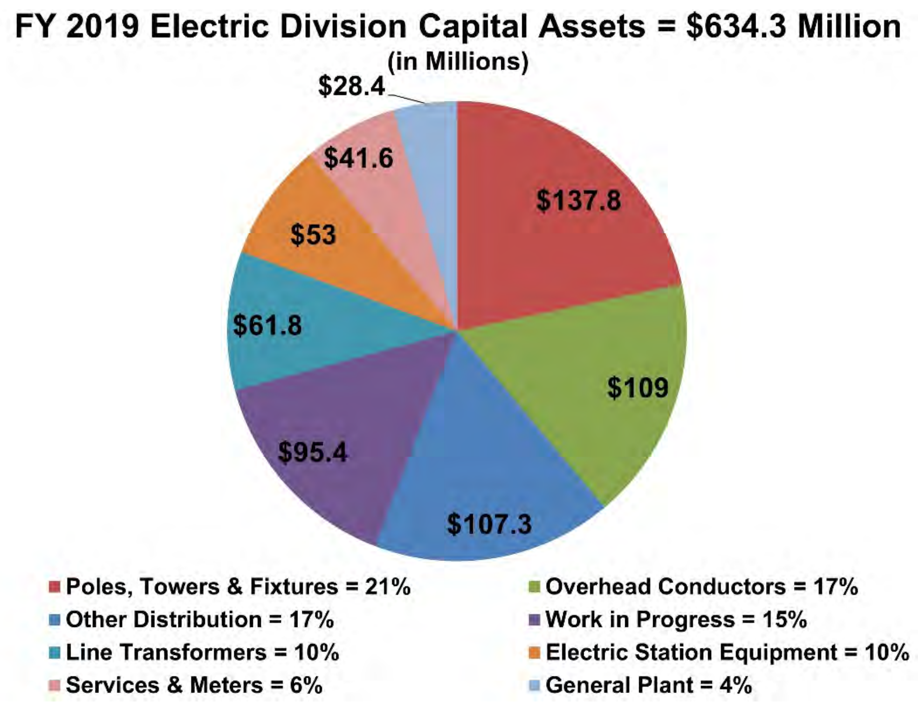
Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $634.3 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $52.5 million or 9 percent over the end of the last fiscal year.

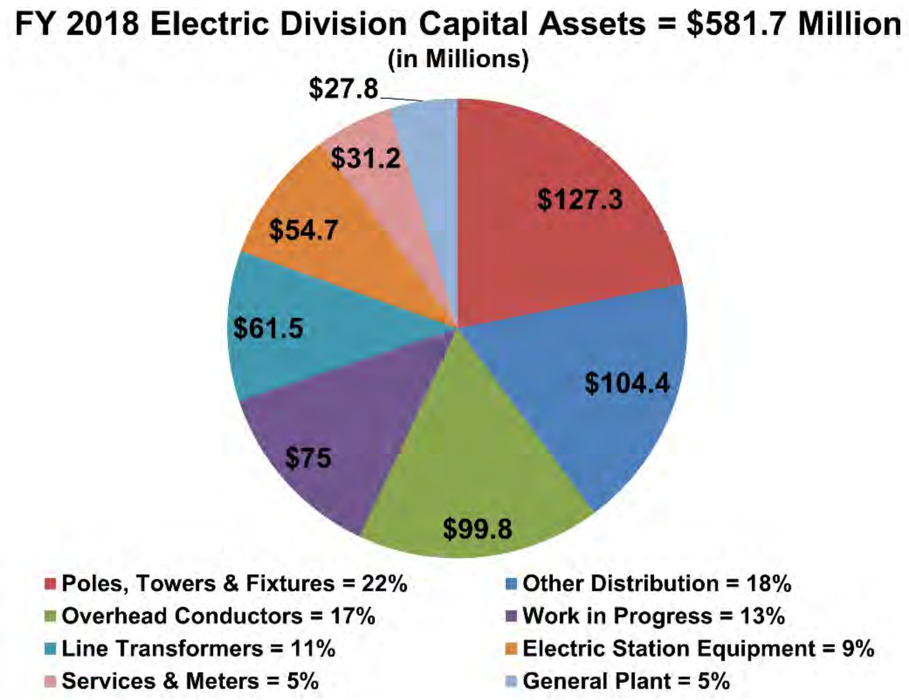


Major capital asset expenditures during the year were as follows:

- $29.5 million for electric distribution system improvements
- $13 million for building improvements
- $10.3 million for pole replacements
- $9.2 million for Grid Modernization including SCADA system upgrades
- $2.6 million for installation of new electric services and the upgrade or replacement of existing services

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $581.7 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $33 million or 6 percent over the end of the last fiscal year.



Major capital asset expenditures during the year were as follows:

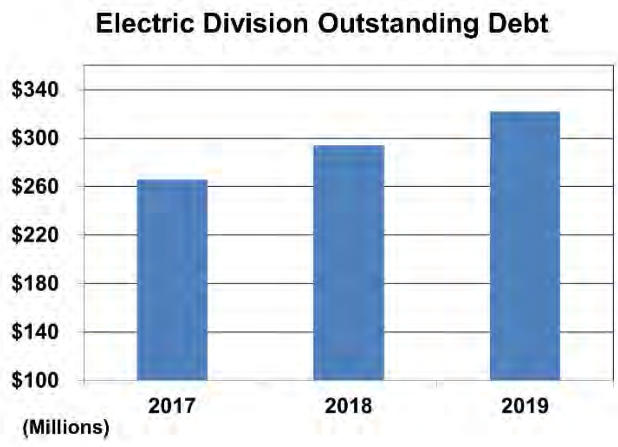
- $31.3 million for electric distribution system improvements
- $8.6 million for pole replacements
- $7.5 million for building improvements
- $7 million for Grid Modernization including SCADA system upgrades
- $3.5 million for installation of new electric services and the upgrade or replacement of existing services

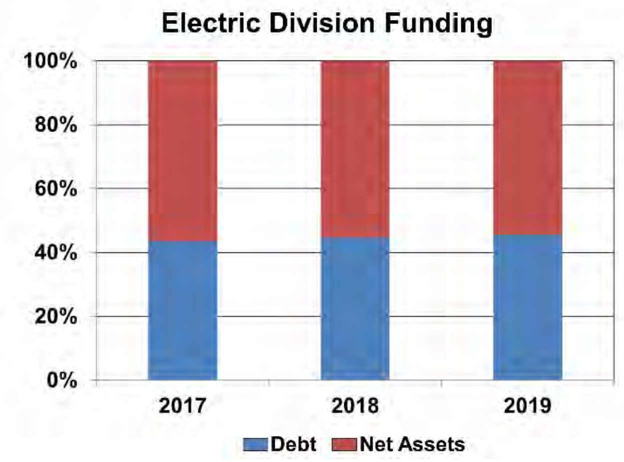
Debt Administration

The Division's outstanding debt was $322.2 million at June 30, 2019. The bonds are secured solely by revenues of the Electric Division. Debt as a percentage of the Division's capital structure was 45.6 percent in 2019, 44.7 percent in 2018, and 43.5 percent at the end of fiscal year 2017. KUB's Debt Management Policy limits the Division's debt ratio to 60 percent or less.

Outstanding Debt
As of June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Revenue bonds	$ 322,170	$ 294,450	$ 265,795
Total outstanding debt	$ 322,170	$ 294,450	$ 265,795





The Division will pay $150.3 million in principal payments over the next ten years, representing 46.7 percent of the outstanding bonds. KUB's Debt Management Policy requires that a minimum of 30 percent of electric debt principal be repaid over the next ten years.

Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $322.2 million in outstanding debt (including the current portion of revenue bonds), compared to $294.5 million last year, an increase of $27.7 million or 9.4 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division's weighted average cost of debt at June 30, 2019 was 3.66 percent (3.55 percent including the impact of Build America Bonds rebates).

KUB sold $40 million in electric system revenue bonds in August 2018 for the purpose of funding electric system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.42 percent.

The Division's outstanding debt is rated by Standard & Poor's (S&P) and Moody's Investors Service. As of June 30, 2019, the Division's revenue bonds were rated AA by S&P and Aa2 by Moody's Investors Service. In May 2019, KUB received a change in its long-term rating from S&P on the electric system. The reduction from 'AA+' to 'AA' reflects a change in methodology in how S&P calculates fixed-charge coverage by including the utility's demand component of its purchased power bill to cover its portion of the Tennessee

Valley Authority's (TVA) fixed costs, including debt service associated with generating plants. KUB’s reduction is consistent with other TVA distributors, due to the same change in methodology.

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $294.5 million in outstanding debt (including the current portion of revenue bonds), compared to $265.8 million last year, an increase of $28.7 million or 10.8 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division’s weighted average cost of debt at June 30, 2018 was 3.70 percent (3.58 percent including the impact of Build America Bonds rebates).

KUB sold $40 million in electric system revenue bonds in August 2017 for the purpose of funding electric system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent.

The Division’s outstanding debt is rated by Standard & Poor’s and Moody’s Investors Service. As of June 30, 2018, the Division’s revenue bonds were rated AA+ by Standard & Poor’s and Aa2 by Moody’s Investors Service.

Impacts on Future Financial Position

KUB anticipates adding 1,600 additional electric customers in fiscal year 2020.

In June 2017, the KUB Board adopted three years of rate increases for all four utility Divisions to help fund the ongoing Century II infrastructure programs for each system. The remaining approved electric rate increase is effective October 2019 and is expected to provide an additional $5.7 million in annual revenue to assist with the funding of the Electric Division.

KUB long-term debt includes $19.9 million of Electric Division 2010 Build America Bonds (BABs). The BABs were sold on a taxable basis with the United States Treasury providing a rebate to KUB for a percentage of the interest cost. The interest rebates were subject to federal sequestration during the fiscal year and were reduced by 6.2 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

The Pension Plan actuarial valuation for the Plan year ending December 31, 2018 resulted in an actuarially determined contribution of $2,585,824 for the fiscal year ending June 30, 2020, based on the Plan’s current funding policy. The Electric Division’s portion of this contribution is $1,241,196. Subsequent to June 30, 2019, the actuarial valuation for the Plan year ending December 31, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $3,167,680 for the fiscal year ending June 30, 2021, based on the Plan’s current funding policy. The Electric Division’s portion of this contribution is $1,520,486. For the Plan year ending December 31, 2019, the Plan’s actuarial funded ratio was 104.68 percent.

The OPEB Plan actuarial valuation as of January 1, 2018 resulted in an actuarially determined contribution of $311,324 for the fiscal year ending June 30, 2020, based on the Plan’s current funding policy. The Electric Division’s portion of this contribution is $149,436. Subsequent to June 30, 2019, the actuarial valuation as of January 1, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $757,226 for the fiscal year ending June 30, 2021, based on the Plan’s current funding policy. The Electric Division’s portion of this contribution is $363,468. The Plan’s actuarial funded ratio was 86.3 percent.

GASB Statement No. 84, *Fiduciary Activities*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 87, *Leases*, is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period,* is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 90, *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 91, *Conduit Debt Obligations*, is effective for fiscal years beginning after December 15, 2020. KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

No other facts, decisions, or conditions are currently known which would have a significant impact on the Division's financial position or results of operations during fiscal year 2019.

Financial Contact

The Division's financial statements are designed to present users (citizens, customers, investors, and creditors) with a general overview of the Division's financial position and results of operations for the fiscal years ending June 30, 2019 and 2018. If you have questions about the statements or need additional financial information, contact KUB's Chief Financial Officer at 445 South Gay Street, Knoxville, Tennessee 37902.

Knoxville Utilities Board Electric Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Assets and Deferred Outflows of Resources		
Current assets:		
Cash and cash equivalents	$ 25,457,569	$ 40,334,343
Short-term investments	14,989,200	2,485,400
Short-term contingency fund investments	25,929,199	11,238,511
Other current assets	411,950	402,936
Accrued interest receivable	73,899	63,510
Accounts receivable, less allowance of uncollectible accounts of $411,152 in 2019 and $506,030 in 2018	53,744,219	58,853,516
Inventories	16,376,074	16,710,893
Prepaid expenses	698,200	695,004
Total current assets	137,680,310	130,784,113
Restricted assets:		
Electric bond fund	19,496,697	17,728,045
Other funds	10,311	10,294
Total restricted assets	19,507,008	17,738,339
Electric plant in service	975,757,680	929,981,483
Less accumulated depreciation	(436,855,568)	(423,269,910)
	538,902,112	506,711,573
Retirement in progress	2,131,243	2,189,617
Construction in progress	93,252,508	72,841,217
Net plant in service	634,285,863	581,742,407
Other assets:		
Net pension asset	-	9,493,619
Net OPEB asset	-	1,800,513
Long-term contingency fund investments	11,559,399	24,849,159
TVA conservation program receivable	2,961,311	4,301,001
Other	3,436,627	3,134,206
Total other assets	17,957,337	43,578,498
Total assets	809,430,518	773,843,357
Deferred outflows of resources:		
Pension outflow	8,281,265	934,974
OPEB outflow	1,196,726	317,944
Unamortized bond refunding costs	2,862,135	3,204,041
Total deferred outflows of resources	12,340,126	4,456,959
Total assets and deferred outflows of resources	$ 821,770,644	$ 778,300,316

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Electric Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Liabilities, Deferred Inflows, and Net Position		
Current liabilities:		
Current portion of revenue bonds	$ 13,600,000	$ 12,275,000
Sales tax collections payable	981,629	969,239
Accounts payable	42,010,867	43,788,667
Accrued expenses	17,440,250	19,629,545
Customer deposits plus accrued interest	14,599,496	13,503,785
Accrued interest on revenue bonds	5,896,573	5,452,921
Total current liabilities	94,528,815	95,619,157
Other liabilities:		
TVA conservation program	3,082,829	4,431,219
Accrued compensated absences	4,231,203	4,056,705
Customer advances for construction	6,081,864	3,236,413
Net pension liability	3,303,187	134,564
Net OPEB liability	694,916	-
Over recovered purchased power cost	2,674,466	4,706,715
Other	36,986	49,817
Total other liabilities	20,105,451	16,615,433
Long-term debt:		
Electric revenue bonds	308,570,000	282,175,000
Unamortized premiums/discounts	11,673,884	12,031,042
Total long-term debt	320,243,884	294,206,042
Total liabilities	434,878,150	406,440,632
Deferred inflows of resources:		
Pension inflow	1,844,823	6,689,924
OPEB inflow	-	154,386
Total deferred inflows of resources	1,844,823	6,844,310
Total liabilities and deferred inflows of resources	436,722,973	413,284,942
Net position		
Net investment in capital assets	300,562,581	278,370,404
Restricted for:		
Debt service	13,600,124	12,275,125
Other	10,311	10,294
Unrestricted	70,874,655	74,359,551
Total net position	385,047,671	365,015,374
Total liabilities, deferred inflows, and net position	$ 821,770,644	$ 778,300,316

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Electric Division
Statements of Revenues, Expenses and Changes in Net Position
Years Ended June 30, 2019 and 2018

	2019	2018
Operating revenues	$ 558,369,583	$ 560,110,507
Operating expenses		
Purchased power	417,674,655	425,841,567
Distribution	35,539,679	35,019,674
Customer service	7,160,178	6,123,651
Administrative and general	18,843,502	13,172,673
Provision for depreciation	31,991,227	35,430,800
Taxes and tax equivalents	18,710,928	17,699,792
Total operating expenses	529,920,169	533,288,157
Operating income	28,449,414	26,822,350
Non-operating revenues (expenses)		
Contributions in aid of construction	3,175,023	2,100,439
Interest and dividend income	2,666,532	1,635,170
Interest expense	(11,704,490)	(10,692,299)
Amortization of debt costs	355,852	375,458
Write-down of plant for costs recovered through contributions	(3,175,023)	(2,100,439)
Other	144,272	(669,966)
Total non-operating revenues (expenses)	(8,537,834)	(9,351,637)
Change in net position before capital contributions	19,911,580	17,470,713
Capital contributions	120,717	119,992
Change in net position	20,032,297	17,590,705
Net position, beginning of year, as previously reported	365,015,374	345,253,775
Change in method of accounting for OPEB	-	2,170,894
Net position, beginning of year, as restated	365,015,374	347,424,669
Net position, end of year	$ 385,047,671	$ 365,015,374

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Electric Division
Statements of Cash Flows
Years Ended June 30, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Cash receipts from customers	$ 556,060,252	$ 544,429,204
Cash receipts from other operations	10,771,445	9,012,655
Cash payments to suppliers of goods or services	(459,063,253)	(459,606,233)
Cash payments to employees for services	(26,982,458)	(26,652,345)
Payment in lieu of taxes	(16,459,902)	(15,542,951)
Cash receipts from collections of TVA conservation loan program participants	1,539,808	2,013,974
Cash payments for TVA conservation loan program	(1,548,508)	(2,097,002)
Net cash provided by operating activities	64,317,384	51,557,302
Cash flows from capital and related financing activities:		
Net proceeds from bond issuance	40,136,680	40,340,022
Principal paid on revenue bonds and notes payable	(12,275,000)	(11,345,000)
Interest paid on revenue bonds and notes payable	(11,260,838)	(9,973,583)
Acquisition and construction of electric plant	(89,286,078)	(77,699,175)
Changes in electric bond fund, restricted	(1,768,652)	(1,648,715)
Customer advances for construction	2,888,073	1,362,957
Proceeds received on disposal of plant	300,949	5,908,123
Cash received from developers and individuals for capital purposes	3,175,023	2,100,439
Net cash used in capital and related financing activities	(68,089,843)	(50,954,932)
Cash flows from investing activities:		
Purchase of investment securities	(34,097,101)	(21,193,298)
Maturities of investment securities	20,673,155	22,554,390
Interest received	2,614,848	1,561,336
Other property and investments	(295,217)	(385,670)
Net cash (used in) provided by investing activities	(11,104,315)	2,536,758
Net (decrease) increase in cash and cash equivalents	(14,876,774)	3,139,128
Cash and cash equivalents, beginning of year	40,334,343	37,195,215
Cash and cash equivalents, end of year	25,457,569	$ 40,334,343
Reconciliation of operating income to net cash provided by operating activities		
Operating income	$ 28,449,414	$ 26,822,350
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	33,344,746	36,749,149
Changes in operating assets and liabilities:		
Accounts receivable	5,109,297	(5,286,496)
Inventories	334,819	(4,180,324)
Prepaid expenses	(3,196)	(12,604)
TVA conservation program receivable	1,339,690	1,721,814
Other assets	(112,530)	118,333
Sales tax collections payable	12,390	39,864
Accounts payable and accrued expenses	(1,859,486)	(3,969,725)
Unrecovered purchased power cost	(2,032,249)	749,042
TVA conservation program payable	(1,348,390)	(1,804,842)
Customer deposits plus accrued interest	1,095,711	605,996
Other liabilities	(12,832)	4,745
Net cash provided by operating activities	$ 64,317,384	$ 51,557,302
Noncash capital activities:		
Acquisition of plant assets through developer contributions	$ 120,717	$ 119,992

The accompanying notes are an integral part of these financial statements.

1. Description of Business

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions including setting rates. The Electric Division (Division) provides services to certain customers in Knox County and in seven surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform Division of Accounts of the Federal Energy Regulatory Commission (FERC) and the Governmental Accounting Standards Board (GASB), as applicable. The financial statements present only the Electric Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

2. Summary of Significant Accounting Policies

Basis of Accounting

In conformity with Generally Accepted Accounting Principles (GAAP), KUB follows the provisions of GASB Statement No. 34 (Statement No. 34), *Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* as amended by GASB Statement No. 63 (Statement No. 63), *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position.* Statement No. 34 established standards for external financial reporting for all state and local governmental entities. Under Statement No. 63, financial statements include deferred outflows of resources and deferred inflows of resources, in addition to assets and liabilities, and report *net position* instead of net assets. In addition, KUB follows GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* as it relates to certain items for regulatory accounting. Regulatory accounting allows a regulated utility to defer a cost (a regulatory asset) or recognize an obligation (a regulatory liability) if it is probable that through the rate making process, there will be a corresponding increase or decrease in future revenues. Accordingly, KUB has recognized certain regulatory assets and regulatory liabilities in the accompanying Statements of Net Position.

The financial statements are prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred. The accounting and financial reporting treatment applied to the Division is determined by measurement focus. The transactions of the Division are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the Statement of Net Position. Net position (i.e., total assets and deferred outflows of resources net of total liabilities and deferred inflows of resources) is segregated into net investment in capital assets, restricted for capital activity and debt service, and unrestricted components.

Recently Adopted New Accounting Pronouncements

In November 2016, the GASB issued GASB Statement No. 83 (Statement No. 83), *Certain Asset Retirement Obligations*. The objective of this Statement is to define asset retirement obligations as a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations is required to perform future asset retirement activities related to its tangible capital assets to recognize a liability based on the guidance in this Statement. Statement No. 83 is effective for fiscal years beginning after June 15, 2018.

In April 2018, the GASB issued GASB Statement No. 88 (Statement No. 88), *Certain Disclosure Related to Debt, Including Direct Borrowings and Direct Placements.* The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowing and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Statement No. 88 is effective for fiscal years beginning after June 15, 2018.

Electric Plant

Electric plant and other property are stated on the basis of original cost. The cost of current repairs and minor replacements is charged to operating expense. The cost of renewals and improvements is capitalized. The original cost of utility plant assets retired or otherwise disposed of and the cost of removal less salvage value is charged to accumulated depreciation. When other property is retired, the related asset and accumulated depreciation are removed from the accounts, and the gain or loss is included in the results of operations.

The provision for depreciation of electric plant in service is based on the estimated useful lives of the assets, which range from three to forty years, and is computed using the straight-line method. Pursuant to FERC, the caption "Provision for depreciation" in the Statements of Revenues, Expenses and Changes in Net Position does not include depreciation for transportation equipment of $1,353,519 fiscal year 2019 and $1,318,349 in fiscal year 2018. Under regulatory accounting, interest costs are expensed as incurred with construction of plant assets.

Operating Revenue

Operating revenue consists primarily of charges for services provided by the principal operations of the KUB Electric Division. Operating revenue is recorded when the service is rendered, on a cycle basis, and includes an estimate of unbilled revenue. Revenues are reported net of bad debt expense of $1,432,683 in fiscal year 2019 and $1,563,176 in fiscal year 2018.

Non-operating Revenue

Non-operating revenue consists of revenues that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities.

Expense

When an expense is incurred for purposes for which there are both restricted and unrestricted net assets available, it is KUB’s policy to apply those expenses to restricted net assets to the extent such are available and then to unrestricted net assets.

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; net position-restricted; and net position-unrestricted.

These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt also should be included in this component of net position. If there are significant unspent related debt proceeds at year end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

- Net position-restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.

- Net position-unrestricted – This component of net position consists of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Contributions in Aid of Construction and Capital Contributions

Contributions in aid of construction are cash collections from customers or others for a particular purpose, generally the construction of new facilities to serve new customers in excess of the investment KUB is willing to make for a particular incremental revenue source. KUB reduces the plant account balances to which contributions relate by the actual amount of the contribution and recognizes the contributions as non-operating revenue in accordance with Statement No. 62.

Capital contributions represent contributions of utility plant infrastructure constructed by developers and others in industrial parks and other developments, and transferred to KUB upon completion of construction and the initiation of utility service. In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, such contributions are recognized as revenues and capital assets upon receipt.

Inventories

Inventories, consisting of plant materials and operating supplies, are valued at the lower of average cost or replacement value.

Change in Method of Accounting for OPEB

In June 2015, the Governmental Accounting Standards Board (GASB) issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses reporting by governments that provide OPEB to their employees. This standard was adopted by KUB in 2018 and resulted in a restatement of beginning net position of $4,522,695 (Division's share $2,170,894) to increase the net OPEB asset by $4,522,695 (Division's share $2,170,894) based on revised actuarial assumptions to conform with GASB 75.

OPEB Plan

KUB's employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and were enrolled in medical coverage on their last day are eligible for post-employment health care. KUB's OPEB Trust was established by KUB's Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. KUB's policy is to fully fund the annual actuarially determined contributions, which are determined by actuarial valuation. As required by GASB Statement No. 75, KUB measures net OPEB liability as total OPEB liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a June 30, 2019 and 2018 measurement date, respectively. The net OPEB liability is $1,447,742 (Division's share $694,916) as of June 30, 2019 and the net OPEB asset is $3,751,068 (Division's share $1,800,513) as of June 30, 2018.

Pension Plan and Qualified Excess Benefit Arrangement

KUB's employees are participants in the Knoxville Utilities Board Pension Plan as authorized by the Charter of the City of Knoxville §1107(J) (Note 10). KUB's policy is to fully fund the annual actuarially determined contributions. As required by GASB Statement No. 68, KUB measures net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a December 31, 2018 and 2017 measurement date, respectively. The net pension liability is $6,649,756 (Division's share $3,191,883) as of June 30, 2019, and the net pension asset is $19,778,372 (Division's share $9,493,619) as of June 30, 2018.

KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB (Note 11). As required by GASB Statement No. 73, KUB measures the total pension liability of the QEBA. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on the December 31, 2018 and 2017 measurement dates. The total pension liability of the QEBA is $231,883 (Division's share $111,304) as of June 30, 2019 and $280,341 (Division's share $134,564) as of June 30, 2018.

Investments

Investments are carried at fair value as determined by quoted market prices at the reporting date.

Self-Insurance

KUB has established self-insurance programs covering portions of workers' compensation, employee health, environmental liability, general liability, property and casualty liability and automobile liability claims. A liability is accrued for claims as they are incurred. When applicable, claims in excess of the self-insured risk are covered by KUB's insurance carrier. Additionally, KUB provides certain lifetime health benefits to eligible retired employees under a self-insurance plan administered by a third party.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on historical experience and various other assumptions that KUB believes are reasonable under the circumstances. However, future events are subject to change and the best estimates and judgments routinely require adjustment. Estimates are used for, but not limited to, inventory valuation, allowance for uncollectible accounts, depreciable lives of plant assets, unbilled revenue volumes, pension trust valuations, OPEB trust valuations, insurance liability reserves, and potential losses from contingencies and litigation. Actual results could differ from those estimates.

Restricted and Designated Assets

Certain assets are restricted by bond resolutions for the construction of utility plant and debt repayment. Certain additional assets are designated by management for contingency purposes and economic development.

Cash Equivalents

For purposes of the Statements of Cash Flows, KUB considers all unrestricted and undesignated highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. Deferred inflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Deferred outflows of resources also include employer pension contributions made subsequent to the measurement date of the net pension liability and before the end of the employer's reporting period in accordance with Statement No. 71. Deferred inflows and deferred outflows also include the net difference between projected and actual earnings on pension plan investments and OPEB plan investments, differences between expected and actual experience, and changes in assumptions in accordance with Statements No. 68, 73, and 75.

Debt Premium/Discount

KUB records unamortized premium and discount on debt as a separate line item in the Long Term Debt section of the Financial Statements. Amortization of these amounts is recorded over the life of the applicable debt and is recorded as amortization expense.

Debt Issuance Costs

In accordance with regulatory accounting, KUB records debt issuance costs as an Other Asset. Amortization of these amounts is recorded over the life of the applicable debt and is recorded as amortization expense.

Deferred Gain/Loss on Refunding of Debt

KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. In accordance with FERC presentation, amortization of these amounts is recorded over the life of the applicable debt and is recorded as amortization expense.

Compensated Absences

KUB accrues a liability for earned but unpaid paid-time off (PTO) days.

TVA Conservation Program

KUB previously served as a fiscal intermediary for the Tennessee Valley Authority (TVA) whereby loans were made to KUB customers by TVA to be used in connection with TVA's Energy Right Residential Program. While KUB still holds existing loans on behalf of TVA, no loans were made through this program after October 31, 2015.

Subsequent Events

KUB has evaluated events and transactions through October 30, 2019, the date these financial statements were issued, for items that should potentially be recognized or disclosed.

Purchased Power Adjustment

In October 2002, the Board adopted a Purchased Power Adjustment (PPA) to address changes in wholesale power costs. The PPA was established in response to an amendment to KUB's power supply contract under which, among other things, TVA relinquished its regulatory authority over KUB retail electric rates. The PPA allows KUB to promptly adjust retail electric rates in response to wholesale rate changes or adjustments, thus ensuring that KUB will recover the costs incurred for purchased power. These changes in electric costs are reflected as adjustments to the base electric rates established by the Board. The rate-setting authority vested in the Board by the City Charter meets the "self-regulated" provisions of Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, and KUB meets the remaining criteria of Statement No. 62.

TVA implemented a fuel cost adjustment in October 2006 applied on a quarterly basis to wholesale power rates. TVA's quarterly fuel cost adjustment became a monthly fuel cost adjustment effective October 2009. KUB flows changes to wholesale power rates from TVA's fuel cost adjustment mechanism directly through to its retail electric rates via the PPA.

In April 2011, TVA modified its wholesale rate structure to demand and energy billing for its distributors. In response, KUB revised its PPA to include a deferred accounting component to ensure appropriate matching of revenue and expense and cost recovery. KUB will adjust its retail rates on an annual basis to flow any over or under recovery of wholesale power costs through to its customers via the PPA.

Under the PPA mechanism, KUB tracks the actual over/(under) recovered amount in the Over/(Under) Recovered Purchased Power Cost accounts. These accounts are rolled into the PPA rate adjustments thereby assuring that any over/(under) recovered amounts are promptly passed on to KUB's electric customers. The amount of over/(under) recovered cost was $2,674,466 at June 30, 2019 and $4,706,715 at June 30, 2018.

Recently Issued Accounting Pronouncements

In January 2017, the GASB issued GASB Statement No. 84 (Statement No. 84), *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 is effective for fiscal years beginning after December 15, 2018.

In June 2017, the GASB issued GASB Statement No. 87 (Statement No. 87), *Leases*. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset. Statement No. 87 is effective for fiscal years beginning after December 15, 2019.

In June 2018, the GASB issued GASB Statement No. 89 (Statement No. 89), *Accounting for Interest Cost Incurred Before the End of a Construction Period.* The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period, and to simplify accounting for interest cost incurred before the end of a construction period. Statement No. 89 is effective for fiscal years beginning after December 15, 2019.

In August 2018, the GASB issued GASB Statement No. 90 (Statement No. 90), *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61.* The objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. Statement No. 90 is effective for fiscal years beginning after December 15, 2018.

In May 2019, the GASB issued GASB Statement No. 91 (Statement No. 91), *Conduit Debt Obligations.* The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. Statement No. 91 is effective for fiscal years beginning after December 15, 2020.

KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

3. Deposits and Investments

KUB follows the provisions of Statement No. 40 of the Governmental Accounting Standards Board, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3*. This Statement establishes and modifies disclosure requirements for state and local governments related to deposit and investment risks. KUB classifies its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*.

KUB's investment policy provides the framework for the administration and investment of cash deposits. The investment policy follows Tennessee State law and defines the parameters under which KUB funds should be invested. State law authorizes KUB to invest in obligations of the United States Treasury, its agencies and instrumentalities; certificates of deposit; repurchase agreements; money market funds; and the State Treasurer's Investment Pool.

Interest Rate Risk. KUB's primary investment objectives are to place investments in a manner to ensure the preservation of capital, remain sufficiently liquid to meet all operating requirements, and maximize yield of return. KUB minimizes its exposure to interest rate risk by adhering to Tennessee State law requirements for the investment of public funds. This includes limiting investments to those types described above and limiting maturity horizons. The maximum maturity is four years from the date of investment. KUB also limits its exposure by holding investments to maturity unless cash flow requirements dictate otherwise.

Credit Risk. KUB's investment policy, as required by state law, is to apply the prudent-person rule: Investments are made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable income to be derived, as well as the probable safety of their capital.

Custodial Credit Risk. KUB's investment policy limits exposure to custodial credit risk by restricting investments to a standard set forth by state law. All deposits in excess of federal depository insurance limits are collateralized with government securities held in KUB's name by a third-party custodian bank(s) acting as KUB's agent(s), or through the State of Tennessee's collateral pool. Financial institutions that participate in the collateral pool are subject to special assessment; therefore, the deposits are considered insured. A portion of KUB's investments are generally held in the State of Tennessee Local Government Investment Pool (LGIP). The LGIP is a part of the State Pooled Investment Fund and is sponsored by the State of Tennessee Treasury Department. Tennessee Code Annotated ¶9-4-701 *et seq*. authorizes local governments to invest in the LGIP. None of KUB's investments are exposed to custodial credit risk.

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Classification of deposits and investments per Statement of Net Position:

	2019	2018
Current assets		
Cash and cash equivalents	$ 25,457,569	$ 40,334,343
Short-term investments	14,989,200	2,485,400
Short-term contingency fund investments	25,929,199	11,238,511
Other assets		
Long-term contingency fund investments	11,359,982	24,691,037
Restricted assets		
Electric bond fund	19,496,697	17,728,045
Other funds	10,311	10,294
	$ 97,242,958	$ 96,487,630

The above amounts do not include accrued interest of $199,417 in fiscal year 2019 and $158,122 in fiscal year 2018. Interest income is recorded on an accrual basis.

Investments and maturities of KUB's deposits and investments as held by financial institutions as of June 30, 2019:

	Deposit and Investment Maturities (in Years)		
	Fair Value	Less Than 1	1-5
Supersweep NOW and Other Deposits	$ 46,181,651	$ 46,181,651	$ -
State Treasurer's Investment Pool	-	-	-
Agency Bonds	52,278,381	40,918,399	11,359,982
Certificates of Deposits	-	-	-
	$ 98,460,032	$ 87,100,050	$ 11,359,982

KUB categorizes its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*. The hierarchy is based on the valuation inputs used to measure the fair value of an asset with a maturity at purchase greater than one year. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

KUB has the following recurring fair value measurements as of June 30, 2019:

- U.S. Agency bonds of $11,359,982, which have a maturity at purchase of greater than one year, are valued using quoted market prices (Level 1 inputs)

KUB measures investments with a maturity at purchase of one year or less at amortized cost, which is considered a fair value equivalent due to their nature. Investments in the State Treasurer's Investment Pool are measured at net asset value (NAV) per share.

4. Accounts Receivable

Accounts receivable consists of the following:

	2019	**2018**
Wholesale and retail customers		
Billed services	$ 33,789,883	$ 35,480,648
Unbilled services	19,164,590	21,803,140
Other	1,200,898	2,075,758
Allowance for uncollectible accounts	(411,152)	(506,030)
	$ 53,744,219	$ 58,853,516

5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2019	**2018**
Trade accounts	$ 42,010,867	$ 43,788,667
Salaries and wages	1,687,316	1,523,756
Advances on pole rental	1,224,209	1,225,693
Self-insurance liabilities	917,526	874,891
Other current liabilities	13,611,199	16,005,205
	$ 59,451,117	$ 63,418,212

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6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2018	Additions	Payments	Defeased	Balance June 30, 2019	Amounts Due Within One Year
Y-2009 - 2.5 - 5.0%	$ 1,850,000	$ -	$ 1,850,000	$ -	$ -	$ -
Z-2010 - 1.45 - 6.35%	21,285,000	-	1,355,000	-	19,930,000	1,390,000
AA-2012 - 3.0 - 5.0%	28,640,000	-	2,805,000	-	25,835,000	2,955,000
BB-2012 - 3.0 - 4.0%	31,850,000	-	725,000	-	31,125,000	750,000
CC-2013 - 3.0 - 4.0%	8,560,000	-	475,000	-	8,085,000	500,000
DD-2014 - 2.0 - 4.0%	37,900,000	-	775,000	-	37,125,000	800,000
EE-2015 - 2.0 - 5.0%	28,125,000	-	150,000	-	27,975,000	2,075,000
FF-2015 - 2.0 - 5.0%	33,625,000	-	725,000	-	32,900,000	750,000
GG-2016 - 2.0 - 5.0%	39,225,000	-	825,000	-	38,400,000	850,000
HH-2017 - 2.5 - 5.0%	23,390,000	-	1,890,000	-	21,500,000	1,990,000
II-2017 - 3.0 - 5.0%	40,000,000	-	700,000	-	39,300,000	765,000
JJ-2018 - 3.0 - 5.0%	-	39,995,000	-	-	39,995,000	775,000
Total bonds	$ 294,450,000	$ 39,995,000	$ 12,275,000	$ -	$ 322,170,000	$ 13,600,000
Unamortized Premium	12,031,042	516,151	873,309	-	11,673,884	-
Total long term debt	$ 306,481,042	$ 40,511,151	$ 13,148,309	$ -	$ 333,843,884	$ 13,600,000

	Balance June 30, 2017	Additions	Payments	Defeased	Balance June 30, 2018	Amounts Due Within One Year
W-2005 - 3.0 - 4.5%	$ 2,015,000	$ -	$ 2,015,000	$ -	$ -	$ -
Y-2009 - 2.5 - 5.0%	3,600,000	-	1,750,000	-	1,850,000	1,850,000
Z-2010 - 1.45 - 6.35%	22,615,000	-	1,330,000	-	21,285,000	1,355,000
AA-2012 - 3.0 - 5.0%	31,310,000	-	2,670,000	-	28,640,000	2,805,000
BB-2012 - 3.0 - 4.0%	32,550,000	-	700,000	-	31,850,000	725,000
CC-2013 - 3.0 - 4.0%	9,035,000	-	475,000	-	8,560,000	475,000
DD-2014 - 2.0 - 4.0%	38,625,000	-	725,000	-	37,900,000	775,000
EE-2015 - 2.0 - 5.0%	28,275,000	-	150,000	-	28,125,000	150,000
FF-2015 - 2.0 - 5.0%	34,325,000	-	700,000	-	33,625,000	725,000
GG-2016 - 2.0 - 5.0%	40,000,000	-	775,000	-	39,225,000	825,000
HH-2017 - 2.5 - 5.0%	23,445,000	-	55,000	-	23,390,000	1,890,000
II-2017 - 3.0 - 5.0%	-	40,000,000	-	-	40,000,000	700,000
Total bonds	$ 265,795,000	$ 40,000,000	$ 11,345,000	$ -	$ 294,450,000	$ 12,275,000
Unamortized Premium	12,080,941	841,629	891,528	-	12,031,042	-
Total long term debt	$ 277,875,941	$ 40,841,629	$ 12,236,528	$ -	$ 306,481,042	$ 12,275,000

Debt service over remaining term of the debt is as follows:

The Division has pledged sufficient revenue, after deduction of all current operating expenses (exclusive of tax equivalents), to meet the revenue bonds principal and interest payments when due. Such bond requirements are being met through monthly deposits to the Electric Bond Fund as required by the bond covenants. As of June 30, 2019, these requirements had been satisfied.

Fiscal Year	**Total Principal**	**Total Interest**	**Grand Total**
2020	$ 13,600,000	$ 11,506,691	$ 25,106,691
2021	14,185,000	10,887,411	25,072,411
2022	14,860,000	10,229,281	25,089,281
2023	15,480,000	9,557,376	25,037,376
2024	16,105,000	8,893,141	24,998,141
2025-2029	76,095,000	35,588,938	111,683,938
2030-2034	47,980,000	24,240,908	72,220,908
2035-2039	44,865,000	17,173,443	62,038,443
2040-2044	51,445,000	9,092,538	60,537,538
2045-2048	27,555,000	1,546,171	29,101,171
Total	$ 322,170,000	$ 138,715,898	$ 460,885,898

During fiscal year 2011, KUB’s Electric Division issued Series Z 2010 bonds to fund electric system capital improvements. The bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change.

During fiscal year 2018, KUB’s Electric Division issued Series II 2017 bonds to fund electric system capital improvements.

During fiscal year 2019, KUB’s Electric Division issued Series JJ 2018 bonds to fund electric system capital improvements.

Other liabilities consist of the following:

	Balance June 30, 2018	**Increase**	**Decrease**	**Balance June 30, 2019**
TVA conservation program	$ 4,431,219	$ 229,677	$ (1,578,067)	$ 3,082,829
Accrued compensated absences	4,056,705	8,209,577	(8,035,079)	4,231,203
Customer advances for construction	3,236,413	4,291,911	(1,446,460)	6,081,864
Other	49,817	33,327	(46,158)	36,986
	$ 11,774,154	$ 12,764,492	$ (11,105,764)	$ 13,432,882

	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
TVA conservation program	$ 6,236,061	$ 329,922	$ (2,134,764)	$ 4,431,219
Accrued compensated absences	4,371,334	8,062,347	(8,376,976)	4,056,705
Customer advances for construction	1,916,046	2,033,752	(713,385)	3,236,413
Other	45,073	34,887	(30,143)	49,817
	$ 12,568,514	$ 10,460,908	$ (11,255,268)	$ 11,774,154

7. Lease Commitments

KUB has non-cancelable operating lease commitments for office equipment, property, and vehicles, summarized for the following fiscal years:

2020	$ 175,261
2021	60,818
2022	35,912
Total operating minimum lease payments	$ 271,991

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8. Capital Assets

Capital asset activity was as follows:

	Balance June 30, 2018	Increase	Decrease	Balance June 30, 2019
Distribution Plant				
Services and Meters	$ 65,695,105	$ 14,634,939	$ (202,920)	$ 80,127,124
Electric Station Equipment	158,378,701	4,513,155	(815,276)	162,076,580
Poles, Towers and Fixtures	176,892,740	15,553,101	(2,113,880)	190,331,961
Overhead Conductors	155,165,531	12,895,084	(8,593,679)	159,466,936
Line Transformers	101,994,883	2,854,573	(1,231,776)	103,617,680
Other Accounts	180,936,153	8,717,868	(3,322,040)	186,331,981
Total Distribution Plant	$ 839,063,113	$ 59,168,720	$ (16,279,571)	$ 881,952,262
General Plant	90,918,370	4,781,626	(1,894,578)	93,805,418
Total Plant Assets	$ 929,981,483	$ 63,950,346	$ (18,174,149)	$ 975,757,680
Less Accumulated Depreciation	(423,269,910)	(33,451,708)	19,866,050	(436,855,568)
Net Plant Assets	$ 506,711,573	$ 30,498,638	$ 1,691,901	$ 538,902,112
Work In Progress	75,030,834	85,135,838	(64,782,921)	95,383,751
Total Net Plant	$ 581,742,407	$ 115,634,476	$ (63,091,020)	$ 634,285,863

	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
Distribution Plant				
Services and Meters	$ 53,715,836	$ 12,185,665	$ (206,396)	$ 65,695,105
Electric Station Equipment	154,663,731	5,396,733	(1,681,763)	158,378,701
Poles, Towers and Fixtures	160,365,582	18,548,854	(2,021,696)	176,892,740
Overhead Conductors	143,937,396	13,259,176	(2,031,041)	155,165,531
Line Transformers	99,293,217	3,464,337	(762,671)	101,994,883
Other Accounts	200,455,297	6,677,050	(26,196,194)	180,936,153
Total Distribution Plant	$ 812,431,059	$ 59,531,815	$ (32,899,761)	$ 839,063,113
General Plant	91,100,644	2,857,527	(3,039,801)	90,918,370
Total Plant Assets	$ 903,531,703	$ 62,389,342	$ (35,939,562)	$ 929,981,483
Less Accumulated Depreciation	(417,964,937)	(36,855,591)	31,550,618	(423,269,910)
Net Plant Assets	$ 485,566,766	$ 25,533,751	$ (4,388,944)	$ 506,711,573
Work In Progress	63,156,777	70,636,196	(58,762,139)	75,030,834
Total Net Plant	$ 548,723,543	$ 96,169,947	$ (63,151,083)	$ 581,742,407

9. Risk Management

KUB is exposed to various risks of loss related to active and retiree medical claims; injuries to workers; theft of, damage to, and destruction of assets; environmental damages; and natural disasters. Claims expenditures and liabilities are reported when it is probable that a loss has occurred, and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported.

These liabilities are included in accrued expenses in the Statement of Net Position. The liability is KUB's best estimate based on available information. At June 30, 2019 and June 30, 2018, the amount of these liabilities was $917,526 and $874,891, respectively, resulting from the following changes:

	2019	**2018**
Balance, beginning of year	$ 874,891	$ 908,059
Current year claims and changes in estimates	8,245,948	7,609,420
Claims payments	(8,203,313)	(7,642,588)
Balance, end of year	$ 917,526	$ 874,891

10. Pension Plan

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2017 to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). The Plan is designed to provide retirement, disability and death benefits to KUB employees. KUB administers the Plan through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2018	**2017**
Inactive plan members:		
Terminated vested participants	21	34
Retirees and beneficiaries	588	602
Active plan members	592	629
Total	1,201	1,265

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost of living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of 3 percent of the first $4,800 of annual earnings and 5 percent of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2018:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%
Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $3,156,661 and $3,756,283 for 2017 and 2016, respectively, were made during the Plan sponsor's fiscal years ending June 30, 2019 and 2018, respectively. Of these amounts, $1,515,197 and $1,803,016 are attributable to the Electric Division. The fiscal year 2019 contribution was determined as part of the January 1, 2017 valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant's benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability or death.

Net Pension Liability

The below summarizes the disclosures of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*("GASB 68"), which requires measurement of the net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement date, respectively. The Division's share of the net pension liability at June 30, 2019 is $3,191,883 and the net pension asset at June 30, 2018 is $9,493,619.

GASB 68 requires certain disclosures related to the net pension liability of the Plan as disclosed below:

	2018	2017
Total pension liability	$ 212,157,951	$ 207,598,733
Plan fiduciary net position	(205,508,195)	(227,377,105)
Plan's net pension liability (asset)	$ 6,649,756	$ (19,778,372)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.50%

Changes in Net Pension Liability are as follows:

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at December 31, 2017	$ 207,598,733	$ 227,377,105	$ (19,778,372)
Changes for the year:			
Service cost	5,095,488	-	5,095,488
Interest	15,344,193	-	15,344,193
Differences between Expected and Actual Experience	(605,649)	-	(605,649)
Changes of Assumptions	-	-	-
Contributions - employer	-	3,456,475	(3,456,475)
Contributions - rollovers	-	2,078,184	(2,078,184)
Contributions - member	-	2,941	(2,941)
Net investment income	-	(11,685,780)	11,685,780
Benefit payments	(15,274,814)	(15,274,814)	-
Administrative expense	-	(445,916)	445,916
Net changes	4,559,218	(21,868,910)	26,428,128
Balances at December 31, 2018	$ 212,157,951	$ 205,508,195	$ 6,649,756

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2018, updated to December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 23 years remaining as of January 1, 2018 and 24 years remaining as of January 1, 2017, or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2018 and 2017, the unfunded liability was negative.
Discount rate	7.5%
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation	2.8 %

The actuarial assumptions used in the January 1, 2018 and 2017 valuations were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. Subsequent revisions to lump sum and post-disability assumptions were based upon updated experience through December 31, 2015 and to retirement and termination rates and expense assumptions based upon updated experience through December 31, 2016.

The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plan's target asset allocation as of December 31, 2018 and 2017 are summarized in the following table. The real rate of return reported for fixed income is for aggregate fixed income. The Plan has both aggregate and long duration fixed income.

	Long Term Expected Real Rate of Return	
Asset Class	**2018**	**2017**
Domestic equity	5.8%	5.0%
Non-U.S. equity	6.9%	6.6%
Real estate equity	6.0%	5.6%
Debt securities	1.7%	1.4%
Cash and deposits	0.7%	0.7%

Discount rate
The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate
The following presents the net pension liability of the Plan as of December 31, 2018, calculated using the discount rate of 7.5 percent, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is one percent lower (6.5 percent) or one percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Plan's net pension liability	$ 23,948,053	$ 6,649,756	$ (8,451,269)

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Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $4,128,608 (Division's share $1,981,732).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5.00 years. During the measurement year, there was an experience gain of $605,649 with $121,129 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $484,520 (Division's share $232,570). Unrecognized experience gains from prior periods were $2,966,120 of which $1,042,252 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,923,868 (Division's share $923,456).

During the measurement year, there were no benefit changes or assumption changes. Unrecognized assumption change decreases from prior periods were $2,045,837 of which $658,104 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,387,733 (Division's share $666,112).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $28,364,098. $5,672,818 of that loss was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $8,925,385 of which $1,848,879 was recognized as a decrease in pension expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2018 of $15,614,774 (Division's share $7,495,092). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,578,332 (Division's share $757,599) at June 30, 2019 for employer contributions made between December 31, 2018 and June 30, 2019.

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	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,408,388
Changes in assumptions	-	1,387,733
Net difference between projected and actual earnings on pension plan investments	15,614,774	-
Contributions subsequent to measurement date	1,578,332	-
Total	$ 17,193,106	$ 3,796,121
Division's share	$ 8,252,691	$ 1,822,138

$1,578,332 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 3,597,035
2021	898,518
2022	1,771,410
2023	5,551,690
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of ($15,659) (Division’s share ($7,516)).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5.00 years. During the measurement year, there was an experience gain of $1,087,161 with $217,432 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $869,729 (Division’s share $417,470). Unrecognized experience gains from prior periods were $2,921,210 of which $824,819 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $2,096,391 (Division’s share $1,006,268).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of $357,633 with $71,526 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $286,107 (Division’s share $137,332). Unrecognized assumption change gains from prior periods were $2,346,307 of which $586,577 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,759,730 (division’s share $844,670).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $17,456,614. $3,491,323 of that gain was recognized in the current year and an identical amount will be recognized in each of the next four years. Net unrecognized investment losses from prior periods were $6,682,351 of which $1,642,445 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment gains this year along with the net unrecognized investment losses from prior periods results in a net difference between projected and actual

earnings on pension plan investments as of December 31, 2017 of ($8,925,384) (Division's share ($4,284,184)). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,878,146 (Division's share $901,510) at June 30, 2018 for employer contributions made between December 31, 2017 and June 30, 2018.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,966,120
Changes in assumptions	-	2,045,837
Net difference between projected and actual earnings on pension plan investments	-	8,925,385
Contributions subsequent to measurement date	1,878,146	-
Total	$ 1,878,146	$ 13,937,342
Division's share	$ 901,510	$ 6,689,924

11. Qualified Excess Benefit Arrangement

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are not subject to cost of living adjustments.

As of June 30, 2019, there are 568 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There is currently one member receiving benefits under the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits, therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis, funded by KUB. There are no assets accumulated in a trust that meets the GASB's criteria.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement dates, respectively. The Division's share of the total pension liability at June 30, 2019 is $111,304 and at June 30, 2018 is $134,564.

GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2018	**2017**
Total pension liability	$231,883	$280,341
Deferred outflows	(52,287)	(69,716)
Deferred inflows	47,260	-
Net impact on Statement of Net Position	$226,856	$210,625
Covered payroll	$42,150,040	$43,309,374
Total pension liability as a % of covered payroll	0.55%	0.65%

Changes in total pension liability of the QEBA are as follows:

	Increase (Decrease) Total Pension Liability
Balances at December 31, 2017	$ 280,341
Changes for the year:	
Service cost	941
Interest	9,676
Changes of Benefits	-
Differences between Expected and Actual Experience	(36,125)
Changes of Assumptions	(22,950)
Benefit payments	-
Net changes	(48,458)
Balances at December 31, 2018	$ 231,883

Actuarial Assumptions
The total pension liability of the QEBA was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2019, for December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 22 years remaining as of January 1, 2019 and 24 years remaining as of January 1, 2017.
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct MP2018 fully generational as of January 1, 2019 and Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA as of January 1, 2017
Inflation	2.5% as of January 1, 2019 and 2.8% as of January 1, 2017

The actuarial assumptions used in the January 1, 2019 valuation were based on the results of an actuarial experience study for the period January 1, 2014 through December 31, 2018.

Discount rate

The QEBA is not funded. In accordance with paragraph 31 of GASB 73, the discount rate is based on the Bond Buyer 20-Bond GO index. This rate was 4.1% at December 31, 2018.

Sensitivity of the total pension liability to changes in the discount rate

The following presents the total pension liability of the QEBA as of December 31, 2018, calculated using the discount rate of 4.1 percent, as well as what the QEBA's total pension liability would be if it were calculated using a discount rate that is one percent lower (3.1 percent) or one percent higher (5.1 percent) than the current rate:

	1% Decrease (3.1%)	**Current Discount Rate (4.1%)**	**1% Increase (5.1%)**
QEBA's total pension liability	$ 254,623	$ 231,883	$ 212,364

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $29,543 for the QEBA (Division's share $14,181). This amount is not expected to be the same as KUB's contribution to the QEBA ($13,312), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$226,856 - $210,625 + $13,312].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5 years. During the measurement year, there was an experience gain of $36,125 with $7,225 recognized in the current year and each of the next four years, resulting in a deferred inflow of $28,900 (Division's share $13,872). There was a deferred outflow at the end of the measurement year of $8,210 from experience losses in prior years (Division's share $3,941).

During the measurement year, there were no benefit changes. There was a decrease in the total pension liability due to assumption changes of $22,950 with $4,590 recognized in the current year and each of the next four years, resulting in a deferred inflow of $18,360 (Division's share $8,813). There was a deferred outflow at the end of the measurement year of $44,077 from assumption changes in prior years (Division's share $21,157). In addition, KUB recorded a deferred outflow of resources of $7,242 at June 30, 2019 for contributions between December 31, 2018 and June 30, 2019 (Division's share $3,476).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 8,210	$ 28,900
Changes in assumptions	44,077	18,360
Contributions subsequent to measurement date	7,242	-
Total	$ 59,529	$ 47,260
Division's share	$ 28,574	$ 22,685

$7,242 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the total pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 5,614
2021	5,614
2022	5,614
2023	(11,815)
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of $29,527 for the QEBA (Division’s share $14,173). This amount is not expected to be the same as KUB’s contribution to the QEBA ($3,979), but instead represents the change in the net impact on KUB’s Statement of Net Position plus employer contributions [$210,625 - $185,077 + $3,979].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5 years. During the measurement year, there was an experience loss of $13,684 with approximately $2,737 recognized in the current year and each of the next four years, resulting in a deferred outflow of $10,947 (Division’s share $5,255).

During the measurement year, there were no benefit changes. There was an increase in the total pension liability due to assumption changes of $73,461 with approximately $14,692 recognized in the current year and each of the next four years, resulting in a deferred outflow of $58,769 (Division’s share $28,209).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 10,947	$ -
Changes in assumptions	58,769	-
Total	$ 69,716	$ -
Division's share	$ 33,464	$ -

12. Defined Contribution Plan

The KUB Asset Accumulation 401(k) Plan (the “401(k) Plan”) is a defined contribution 401(k) employee retirement savings plan covering eligible KUB employees established by the KUB Board of Commissioners in accordance with the Charter of the City of Knoxville, Tennessee. The 401(k) Plan’s assets are held in trust under an agreement between KUB and Fidelity Management Trust Company. Employees hired prior to January 1, 2011 may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. Employees hired on or after January 1, 2011 have an enhanced 401(k) due to the closure of the Defined Benefit Pension Plan. They may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. They also receive a nonelective KUB contribution of 3 percent to 6 percent, depending on years of service, whether they contribute or not.

KUB funded 401(k) matching contributions and nonelective contributions of $2,410,201 (Division’s share $1,156,897) and $2,174,711 (Division’s share $1,043,861), respectively, for the years ended June 30, 2019 and 2018.

13. Other Post-Employment Benefits (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post Employment Benefits Trust (the Trust) is a single-employer Other Post Employment Benefits Plan (OPEB Plan) established by the Knoxville Utilities Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB’s President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB’s Board of Commissioners, upon recommendation by KUB’s President and CEO. All other amendments to the Trust may be approved by KUB’s President and CEO upon 60 days notification to the Board’s Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division’s share is specified.

Effective July 1, 1999, KUB closed the OPEB Plan such that persons employed or re-employed by KUB on or after July 1, 1999, are not eligible to participate, but that eligible employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the “Rule of 80”, the sum of age and at least 20 years of qualified service equal or exceed 80, accrue benefits under the OPEB Plan.

Participants in the OPEB Plan consisted of the following as of June 30:

	2019	2018
Retirees	554	562
Dependents of retirees	550	561
Eligible active employees	288	309
Total	1,392	1,432

Benefits

Other post-employment benefits may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Only medical and pharmacy are currently provided to eligible retirees.

Contributions and Plan Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB’s current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust’s Board shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to and in accordance with the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired plan members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $250 per month for pre-Medicare family health insurance. For individuals who retired after January 1998 the required monthly premium for pre-Medicare health insurance is $250 for single coverage and $500 for family coverage. There is currently no premium for Medicare eligible retirees or dependents. KUB is responsible for determining the level of retired plan member contributions on an annual basis, as part of its review of healthcare cost sharing.

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2019:

Asset Class	**Target Allocation**
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

No contributions were made to the OPEB Trust for the fiscal years ending June 30, 2019 and 2018, based on the OPEB Plan's actuarial valuations as of January 1, 2017, and 2016.

Implementation of GASB 75

In fiscal year 2018, KUB adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), which requires measurement of the net OPEB liability as total OPEB liability, less the amount of the Trust's fiduciary net position. The amounts reported as of June 30, 2019 are based on the reporting date for the KUB Other Post-Employment Benefits Plan which is June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019 and the Total OPEB Liability as of the valuation date, January 1, 2018, updated to June 30, 2019. The Division's share of the total net OPEB liability at June 30, 2019 is $694,916 and the net OPEB asset at June 30, 2018 is $1,800,513.

The components of the net OPEB liability of the Trust are as follows as of June 30:

	2019	**2018**
Total OPEB liability	$ 50,197,938	$ 45,604,431
Plan fiduciary net position	48,750,196	49,355,499
Net OPEB liability (asset)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%

Changes in Net OPEB Liability are as follows:

	Total OPEB Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (a) - (b)
Balances at June 30, 2018	$ 45,604,431	$ 49,355,499	$ (3,751,068)
Changes for the year:			
Service cost	270,515	-	270,515
Interest	3,624,737	-	3,624,737
Differences between Expected and Actual Experience	999,098	-	999,098
Changes of Assumptions	3,231,601	-	3,231,601
Contributions - employer	-	-	-
Contributions - member	-	-	-
Net investment income	-	2,981,928	(2,981,928)
Benefit payments	(3,532,444)	(3,532,444)	-
Administrative expense	-	(54,787)	54,787
Net changes	4,593,507	(605,303)	5,198,810
Balances at June 30, 2019	$ 50,197,938	$ 48,750,196	$ 1,447,742

Actuarial assumptions

The total OPEB liability was determined by actuarial valuations, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation dates:	January 1, 2018, updated to June 30, 2019; January 1, 2017, updated to June 30, 2018
Discount rate:	7.5%
Healthcare cost trend rates:	Pre-Medicare: 8.00% grading down to 4.50% over 20 years as of January 1, 2018; 7.83% grading down to 4.50% over 19 years as of January 1, 2017 Medicare: 7.00% grading down to 4.50% over 20 years as of January 1, 2018; 6.88% grading down to 4.50% over 19 years as of January 1, 2017 Administrative expenses: 3.0% per year
Salary increases:	From 2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013, with subsequent revisions to retirement and termination assumptions based upon a special experience study, which reflected experience through December 31, 2016.

The long-term expected rate of return on Trust investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Trust investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The long-term expected rate of return may be lower in periods of current strong performance due to future valuations that mean revert to the long-term average. Best estimates of arithmetic real rates of return for each major asset class included in the Trust's target asset allocation (see the discussion of the Trust's Investment Policy) are summarized in the chart below.

	Long Term Expected Real Rate of Return	
Asset Class	**2019**	**2018**
Domestic equity	5.5%	5.1%
International equity	6.4%	6.6%
Real estate equity	5.9%	5.8%
Debt securities	1.5%	1.6%
Cash and deposits	0.6%	0.8%

Discount rate
The discount rate used to measure the total OPEB liability was 7.5 percent. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected future benefit payments. Therefore, the long-term expected rate of return on Trust investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB liability to changes in the discount rate.
The following presents the net OPEB liability of the Trust as of June 30, 2019, calculated using the discount rate of 7.5 percent, as well as what the Trust's net OPEB liability would be if it were calculated using a discount rate that is 1 percent lower (6.5 percent) or 1 percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Net OPEB liability (asset)	$ 5,912,340	$ 1,447,742	$ (2,396,293)

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.
The following presents the net OPEB liability of the Trust as of June 30, 2019, as well as what the Trust's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percent lower or 1 percent higher than the current rate:

	1% Decrease	**Baseline Trends**	**1% Increase**
Net OPEB liability (asset)	$ (3,158,239)	$ 1,447,742	$ 6,713,737

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2019, KUB recognized OPEB expense of $3,046,377 (Division's share $1,462,261).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $999,098 with $499,549 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $499,549 (Division's share $239,783). Unrecognized experience losses from prior periods were $662,384 of which the entire amount is recognized as an increase in OPEB expense in the current year.

During the measurement year, there were no benefit changes. There was an increase in the Total OPEB Liability due to assumption changes of $3,231,601 with $1,615,801 of that recognized in the current year and in the next year, resulting in a deferred outflow of $1,615,800 (Division's share $775,584). Unrecognized assumption changes from prior periods were ($198,590) of which the entire amount is recognized as a decrease in OPEB expense in the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $587,645. $117,529 of that was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $123,047 of which $30,762 was recognized as a decrease in OPEB expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on OPEB plan investments as of June 30, 2019 of $377,831 (Division's share $181,359). The table below summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 499,549	$ -
Changes in assumptions	1,615,800	-
Net difference between projected and actual earnings on OPEB plan investments	377,831	-
Total	$ 2,493,180	$ -
Division's share	$ 1,196,726	$ -

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2020	$ 2,202,116
2021	86,767
2022	86,768
2023	117,529
Thereafter	-

For the year ended June 30, 2018, KUB recognized OPEB expense of $430,880 (Division's share $206,822).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $1,324,769 with $662,385 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $662,384 (Division's share $317,944).

During the measurement year, there were no benefit changes. There was a decrease in the Total OPEB Liability due to assumption changes of $397,180 with $198,590 of that recognized in the current year and in the next year, resulting in a deferred inflow of $198,590 (Division's share $95,323).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $153,809. $30,762 of that was recognized in the current year and $123,047 (Division's share $59,063) will become a deferred inflow of resources recognized over the next four years. The table below summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 662,384	$ -
Changes in assumptions	-	198,590
Net difference between projected and actual earnings on OPEB plan investments	-	123,047
Total	$ 662,384	$ 321,637
Division's share	$ 317,944	$ 154,386

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14. Related Party Transactions

The Division, in the normal course of operations, is involved in transactions with the City of Knoxville and with other divisions of KUB. Such transactions for the years ended June 30, 2019 and 2018 are summarized as follows:

	2019	2018
City of Knoxville		
Amounts billed by the Division for utilities and related services	$ 7,115,980	$ 9,190,195
Payments by the Division in lieu of property tax	8,422,155	7,947,289
Payments by the Division for services provided	96,839	69,966
Other divisions of KUB		
Amounts billed to other divisions for utilities and related services provided	6,113,820	6,093,018
Interdivisional rental expense	-	-
Interdivisional rental income	791,721	804,921
Amounts billed to the Division by other divisions for utilities services provided	180,580	227,990

With respect to these transactions, accounts receivable from the City of Knoxville included in the balance sheet at year end were as follows:

	2019	2018
Accounts receivable	$ 308,867	$ 522,238

15. Other Commitments and Contingencies

In the normal course of business, there are various lawsuits pending against KUB. Management has reviewed these lawsuits with counsel, who is vigorously defending KUB's position and is of the opinion that the ultimate disposition of these matters will not have a material adverse effect on KUB's financial position, results of operations or cash flows.

Knoxville Utilities Board Electric Division

Required Supplementary Information – Schedule of Changes in Net Pension Liability and Related Ratios

June 30, 2019

(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 5,095,488	$ 4,607,486	$ 4,226,985	$ 4,157,062	$ 4,092,808
Interest	15,344,193	15,015,282	14,966,559	14,812,784	14,698,657
Differences between expected and actual experience	(605,649)	(1,087,161)	(2,233,762)	(1,890,334)	-
Changes of assumptions	-	(357,633)	(2,932,883)	-	-
Benefit payments, including refunds of member contributions	(15,274,814)	(14,969,979)	(14,138,511)	(15,350,926)	(15,533,167)
Net change in total pension liability	4,559,218	3,207,995	(111,612)	1,728,586	3,258,298
Total pension liability - beginning	207,598,733	204,390,738	204,502,350	202,773,764	199,515,466
Total pension liability - ending (a)	$ 212,157,951	$ 207,598,733	$ 204,390,738	$ 204,502,350	$ 202,773,764
Plan fiduciary net position					
Contributions - employer	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contributions - participants	2,081,125	1,488,632	555,075	487,546	475,854
Net investment income	(11,748,396)	32,360,219	13,788,263	(95,430)	22,292,369
Other additions	62,616	82,239	45,848	30,879	29,733
Benefit payments, including refunds of member contributions	(15,174,814)	(14,895,979)	(14,044,511)	(15,274,926)	(15,405,167)
Administrative expense	(445,916)	(385,282)	(441,332)	(397,160)	(378,085)
Death benefits	(100,000)	(74,000)	(94,000)	(76,000)	(128,000)
Net change in plan fiduciary net position**	(21,868,910)	22,862,426	5,052,489	(9,333,204)	12,795,245
Plan fiduciary net position - beginning**	227,377,105	204,514,679	199,462,190	208,795,394	196,000,149
Plan fiduciary net position - ending (b)**	$ 205,508,195	$ 227,377,105	$ 204,514,679	$ 199,462,190	$ 208,795,394
Plan's net pension liability - ending (a) - (b)	$ 6,649,756	$ (19,778,372)	$ (123,941)	$ 5,040,160	$ (6,021,630)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.53%	100.06%	97.54%	102.97%
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Plan's net pension liability as a percentage of covered payroll	15.78	(45.67%)	(0.28%)	11.34%	(13.66%)

Notes to Schedule:

* Information not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented in 2014.

** Excludes amounts related to 401(k) matching contributions.

Knoxville Utilities Board Electric Division
Required Supplementary Information – Schedule of Employer Pension Contributions
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	**2017**	**2016**	**2015**	**2014**
Actuarially determined contribution	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contribution in relation to the actuarially determined contribution	3,456,475	4,286,597	5,243,146	5,991,887	5,908,541
Contribution deficiency	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Contributions as a percentage of covered payroll	8.20%	9.90%	11.80%	13.48%	13.41%

Notes to Schedule:

Timing:	Actuarially determined contributions for a Plan year are based upon 50% of the amounts determined at the actuarial valuations for each of the two prior Plan years.
Valuation Dates:	January 1, 2017 and January 1, 2016

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Individual entry age
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 24 years remaining (25 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative.
Discount rate:	7.5%
Salary increases:	2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

* Schedule of Employer Contribution information is not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented 2014. Please refer to prior year's audited financial statements for prior methods and assumptions.

Knoxville Utilities Board Electric Division

Required Supplementary Information – Schedule of Changes in Net OPEB Liability and Related Ratios

June 30, 2019

(Unaudited)

	*Year ended June 30 2019	2018
Total OPEB liability		
Service cost	$ 270,515	$ 202,603
Interest	3,624,737	3,295,240
Differences between expected and actual experience	999,098	1,324,769
Changes of assumptions	3,231,601	(397,180)
Benefit payments	(3,532,444)	(3,298,739)
Net change in total OPEB liability	4,593,507	1,126,693
Total OPEB liability - beginning	45,604,431	44,477,738
Total OPEB liability - ending (a)	$ 50,197,938	$ 45,604,431
Plan fiduciary net position		
Contributions - employer	$ -	$ -
Net investment income	2,981,928	3,705,473
Benefit payments	(3,532,444)	(3,298,739)
Administrative expense	(54,787)	(51,668)
Net change in plan fiduciary net position	(605,303)	355,066
Plan fiduciary net position - beginning	49,355,499	49,000,433
Plan fiduciary net position - ending (b)	$ 48,750,196	$ 49,355,499
Net OPEB liability - ending (a) - (b)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%
Covered employee payroll	$ 24,346,735	$ 23,677,080
Net OPEB liability as a percentage of covered employee payroll	5.95%	(15.84%)

Notes to Schedule:

* Information not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.

Knoxville Utilities Board Electric Division

Required Supplementary Information – Schedule of Employer OPEB Contributions

June 30, 2019

(Unaudited)

	*Year ended June 30 2019	2018
Actuarially determined contribution	$ -	$ -
Contribution in relation to the annual required contribution	-	-
Contribution deficiency/(excess)	$ -	$ -
Covered employee payroll	$ 24,346,735	$ 23,677,080
Contributions as a percentage of covered employee payroll	0.00%	0.00%

Notes to Schedule:

Valuation Date:	January 1, 2017 and January 1, 2016
Timing:	Actuarially determined contribution rates are calculated based on the actuarial valuation completed 18 months before the beginning of the fiscal year.

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Entry age normal
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 19 years remaining as of January 1, 2017 (20 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative
Discount rate:	7.5%
Healthcare cost trend rate:	Pre-Medicare: 7.83% grading down to 4.5% over 19 years as of January 1, 2017; 8% to 4.5% over 20 years as of January 1, 2016 Medicare: 6.88% grading down to 4.5% over 19 years as of January 1, 2017; 7% to 4.5% over 20 years as of January 1, 2016 Administrative expenses: 3.0% per year
Salary increases:	From 2.8% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%
Investment rate of return:	7.5%
Retirement age:	2% at ages 50-57 and ages 50-55, at January 1, 2017 and January 1, 2016, respectively, grading up to 100% at age 70

* Schedule of Employer Contribution information is not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.
Please refer to prior year's audited financial statement for prior methods and assumptions.

Knoxville Utilities Board Electric Division
Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement
Schedule of Changes in Total Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31		
	2018	2017	2016
Total pension liability			
Service cost	$ 941	$ 584	$ -
Interest (includes interest on service cost)	9,676	7,535	-
Changes of benefit terms	-	-	185,077
Differences between expected and actual experience	(36,125)	13,684	-
Changes of assumptions	(22,950)	73,461	-
Benefit payments, including refunds of member contributions	-	-	-
Net change in total pension liability	(48,458)	95,264	185,077
Total pension liability - beginning	280,341	185,077	-
Total pension liability - ending	$ 231,883	$ 280,341	$ 185,077
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747
Total pension liability as a percentage of covered payroll	0.55%	0.65%	0.42%

Notes to Schedule:

* There are no assets accumulated in a trust that meet the criteria in paragraph 4 of GASB 73 to pay related benefits.

Knoxville Utilities Board Electric Division
Supplemental Information - Schedule of Insurance in Force
June 30, 2019
(Unaudited) Schedule 1

Insurance coverage is for KUB as a consolidated entity.

Crime

Covers losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $5,000,000; $250,000 retention.

Directors' and Officers' Liability Insurance

Covers KUB personnel appropriately authorized to make decisions on behalf of KUB (including but not limited to Commissioners, President and CEO, Senior Vice Presidents, Vice Presidents, and Directors) for wrongful acts. Limits of coverage - $20,000,000; $1,000,000 corporate deductible, $0 individual deductible.

Employment Practices Liability

Coverage for costs related to actual or alleged employment practices violations for amounts exceeding specified amount ($500,000). Limits of coverage - $10,000,000.

Fiduciary

Covers losses resulting from wrongful acts related to KUB's Pension, 401(k), OPEB Trust funds, and Medical Plan. Limits of coverage - $10,000,000; $150,000 deductible.

Pollution Legal Liability

New conditions coverage for losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - $20,000,000.

Property Insurance

This coverage provides protection of KUB's property for fire, extended coverage, vandalism and malicious mischief, and coverage on boilers and machinery. Also included are flood and earthquake damage and mechanical failure. Limits of coverage - $250,000,000 per occurrence (subject to certain sublimits); $2,500,000 deductible per occurrence.

Travel Accident

Covers losses related to employees' business travel. Limits of coverage - $1,000,000 aggregate.

Excess Insurance for General Liability

As a government entity, KUB's liability is limited under the Tennessee Governmental Tort Liability Act (TCA §29-20-403). KUB is self-insured for up to the first $700,000 of any accident and has insurance of $1,000,000 above this retention.

Excess Insurance for Workers' Compensation

Covers all losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - Statutory; stop loss coverage applies for aggregate losses over $5,000,000.

Employee Health Plan Stop Loss Coverage

KUB's employee health plan is self-funded. KUB has purchased stop loss insurance, which covers KUB's exposure to annual expenses in excess of $500,000 per individual participant.

Knoxville Utilities Board Electric Division
Supplemental Information - Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

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	Z-2010			AA-2012		BB-2012		CC-2013		DD-2014		EE-2015	
FY	Principal	Interest	Rebate*	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
19-20	1,390,000	1,070,710	374,749	2,955,000	942,838	750,000	942,500	500,000	248,100	800,000	1,298,619	2,075,000	937,950
20-21	1,425,000	1,007,355	352,575	3,100,000	791,463	800,000	911,500	515,000	227,800	825,000	1,282,369	2,135,000	863,825
21-22	1,470,000	939,300	328,756	3,270,000	632,213	825,000	879,000	540,000	206,700	875,000	1,256,619	2,235,000	788,100
22-23	1,515,000	866,145	303,151	3,415,000	482,163	875,000	849,375	560,000	187,500	900,000	1,221,119	2,300,000	708,250
23-24	1,560,000	787,710	275,698	3,540,000	360,763	900,000	822,750	575,000	170,475	950,000	1,184,119	2,415,000	590,375
24-25	1,615,000	703,545	246,241	3,640,000	253,063	950,000	795,000	590,000	153,000	975,000	1,145,619	2,555,000	478,900
25-26	1,670,000	613,180	214,614	1,105,000	180,506	975,000	766,125	640,000	134,550	1,025,000	1,110,744	2,670,000	387,750
26-27	1,725,000	516,395	180,739	1,140,000	144,025	1,025,000	736,125	650,000	115,200	1,075,000	1,079,244	2,735,000	306,675
27-28	1,785,000	413,266	144,643	1,180,000	106,325	1,075,000	704,625	670,000	95,400	1,125,000	1,046,244	2,850,000	222,900
28-29	1,850,000	303,738	106,308	1,225,000	65,713	1,125,000	671,625	675,000	75,225	1,175,000	1,011,744	2,955,000	135,825
29-30	1,925,000	187,156	65,505	1,265,000	22,138	1,175,000	637,125	710,000	54,450	1,225,000	975,744	3,050,000	45,750
30-31	2,000,000	63,500	22,225			1,225,000	601,125	725,000	32,925	1,275,000	938,244		
31-32						1,275,000	563,625	735,000	11,025	1,325,000	897,919		
32-33						1,325,000	524,625			1,375,000	854,375		
33-34						1,375,000	484,125			1,450,000	808,469		
34-35						1,450,000	441,750			1,500,000	759,594		
35-36						1,500,000	397,500			1,575,000	707,703		
36-37						1,575,000	351,375			1,650,000	652,250		
37-38						1,625,000	303,375			1,725,000	593,188		
38-39						1,700,000	253,500			1,800,000	531,500		
39-40						1,775,000	201,375			1,875,000	462,500		
40-41						1,850,000	147,000			1,950,000	386,000		
41-42						1,950,000	90,000			2,025,000	306,500		
42-43						2,025,000	30,375			2,125,000	223,500		
43-44										2,225,000	136,500		
44-45										2,300,000	46,000		
45-46													
46-47													
47-48													
Total	$ 19,930,000	$ 7,472,000	$ 2,615,204	$ 25,835,000	$ 3,981,210	$ 31,125,000	$ 13,105,500	$ 8,085,000	$ 1,712,350	$ 37,125,000	$ 20,916,426	$ 27,975,000	$ 5,466,300

*Series Z-2010 bonds were issued as federally taxable Build America Bonds. KUB is scheduled to receive a 35 percent interest rebate payment from the United States Government for each interest payment. Effective October 1, 2018 these bonds became subject to a 6.2% reduction in rebate payment amounts due to the United States Government sequestration. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change.

Knoxville Utilities Board Electric Division
Supplemental Information - Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

Continued from Previous Page

													Grand Total	Grand Total
	FF-2015		GG-2016		HH-2017		II-2017		JJ-2018		Total		(P + I)	(Less Rebate)
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest		
19-20	750,000	1,374,750	850,000	1,117,688	1,990,000	856,455	765,000	1,302,025	775,000	1,415,056	13,600,000	11,506,691	25,106,691	24,731,942
20-21	775,000	1,336,625	900,000	1,073,938	2,090,000	754,455	805,000	1,262,775	815,000	1,375,306	14,185,000	10,887,411	25,072,411	24,719,836
21-22	800,000	1,297,250	950,000	1,027,688	2,195,000	647,330	845,000	1,221,525	855,000	1,333,556	14,860,000	10,229,281	25,089,281	24,760,525
22-23	825,000	1,256,625	1,000,000	978,938	2,305,000	534,830	890,000	1,178,150	895,000	1,294,281	15,480,000	9,557,376	25,037,376	24,734,225
23-24	850,000	1,214,750	1,050,000	927,688	2,400,000	444,205	935,000	1,132,525	930,000	1,257,781	16,105,000	8,893,141	24,998,141	24,722,443
24-25	900,000	1,171,000	1,100,000	884,938	2,460,000	380,455	985,000	1,084,525	965,000	1,224,706	16,735,000	8,274,751	25,009,751	24,763,510
25-26	925,000	1,125,375	1,125,000	857,188	2,560,000	285,705	1,035,000	1,034,025	1,005,000	1,185,106	14,735,000	7,680,254	22,415,254	22,200,640
26-27	950,000	1,078,500	1,150,000	834,438	2,695,000	154,330	1,075,000	992,025	1,055,000	1,133,606	15,275,000	7,090,563	22,365,563	22,184,824
27-28	975,000	1,030,375	1,175,000	811,188	2,805,000	43,478	1,110,000	959,250	1,100,000	1,090,731	15,850,000	6,523,782	22,373,782	22,229,139
28-29	1,025,000	985,500	1,200,000	787,437			1,140,000	925,500	1,130,000	1,057,281	13,500,000	6,019,588	19,519,588	19,413,280
29-30	1,050,000	944,000	1,200,000	762,687			1,175,000	890,775	1,165,000	1,022,856	13,940,000	5,542,681	19,482,681	19,417,176
30-31	1,100,000	901,000	1,250,000	731,187			1,215,000	854,925	1,200,000	986,631	9,990,000	5,109,537	15,099,537	15,077,312
31-32	1,125,000	856,500	1,275,000	693,312			1,250,000	817,950	1,240,000	947,731	8,225,000	4,788,062	13,013,062	13,013,062
32-33	1,175,000	810,500	1,325,000	654,312			1,285,000	779,925	1,285,000	905,897	7,770,000	4,529,634	12,299,634	12,299,634
33-34	1,225,000	762,500	1,350,000	614,187			1,325,000	740,775	1,330,000	860,938	8,055,000	4,270,994	12,325,994	12,325,994
34-35	1,250,000	713,000	1,400,000	572,937			1,365,000	700,425	1,375,000	813,600	8,340,000	4,001,306	12,341,306	12,341,306
35-36	1,300,000	662,000	1,450,000	535,625			1,410,000	658,800	1,420,000	766,463	8,655,000	3,728,091	12,383,091	12,383,091
36-37	1,350,000	609,000	1,475,000	500,875			1,450,000	615,900	1,470,000	719,500	8,970,000	3,448,900	12,418,900	12,418,900
37-38	1,400,000	554,000	1,525,000	459,563			1,495,000	571,725	1,520,000	669,963	9,290,000	3,151,814	12,441,814	12,441,814
38-39	1,450,000	497,000	1,550,000	417,313			1,540,000	526,200	1,570,000	617,819	9,610,000	2,843,332	12,453,332	12,453,332
39-40	1,500,000	438,000	1,600,000	377,937			1,590,000	479,250	1,625,000	562,888	9,965,000	2,521,950	12,486,950	12,486,950
40-41	1,550,000	377,000	1,650,000	335,250			1,635,000	430,875	1,685,000	504,963	10,320,000	2,181,088	12,501,088	12,501,088
41-42	1,600,000	314,000	1,675,000	289,531			1,685,000	381,075	1,745,000	444,938	10,680,000	1,826,044	12,506,044	12,506,044
42-43	1,675,000	248,500	1,725,000	242,781			1,740,000	329,700	1,805,000	382,813	11,095,000	1,457,669	12,552,669	12,552,669
43-44	1,725,000	180,500	1,775,000	194,656			1,790,000	275,631	1,870,000	318,500	9,385,000	1,105,787	10,490,787	10,490,787
44-45	1,800,000	110,000	1,825,000	142,875			1,850,000	218,756	1,935,000	251,913	9,710,000	769,544	10,479,544	10,479,544
45-46	1,850,000	37,000	1,900,000	87,000			1,910,000	160,006	2,005,000	182,963	7,665,000	466,969	8,131,969	8,131,969
46-47			1,950,000	29,250			1,970,000	98,151	2,075,000	111,563	5,995,000	238,964	6,233,964	6,233,964
47-48							2,035,000	33,069	2,150,000	37,625	4,185,000	70,694	4,255,694	4,255,694
Total	$ 32,900,000	$ 20,885,250	$ 38,400,000	$ 16,942,407	$ 21,500,000	$ 4,101,243	$ 39,300,000	$ 20,656,238	$ 39,995,000	$ 23,476,974	$ 322,170,000	$ 138,715,898	$ 460,885,898	$ 458,270,694

Knoxville Utilities Board Electric Division

Supplemental Information - Schedule of Changes in Long-term Debt by Individual Issue

June 30, 2019

(Unaudited)

Schedule 3

Description of Indebtedness	Original Amount of Issue	Interest Rate	Date of Issue	Last Maturity Date	Outstanding Balance 7/1/2018	Issued During Period	Paid/Matured During Period	Refunded During Period	Outstanding Balance 6/30/2019
Business-Type Activities									
BONDS PAYABLE									
Payable through Electric Fund									
Revenue Bond, Series Y-2009	40,000,000	2.5-5.0	02/20/09	07/01/18	$ 1,850,000	$	$ 1,850,000	$	$ -
Revenue Bond, Series Z-2010	30,000,000	1.45-6.35	12/08/10	07/01/30	21,285,000		1,355,000		19,930,000
Revenue Bond Refunding, Series AA-2012	36,815,000	3.0-5.0	04/20/12	07/01/29	28,640,000		2,805,000		25,835,000
Revenue Bond, Series BB-2012	35,000,000	3.0-4.0	12/18/12	07/01/42	31,850,000		725,000		31,125,000
Revenue Bond Refunding, Series CC-2013	9,660,000	3.0-4.0	03/15/13	07/01/31	8,560,000		475,000		8,085,000
Revenue Bond, Series DD-2014	40,000,000	2.0-4.0	09/18/14	07/01/44	37,900,000		775,000		37,125,000
Revenue Bond Refunding, Series EE-2015	28,550,000	2.0-5.0	05/01/15	07/01/29	28,125,000		150,000		27,975,000
Revenue Bond, Series FF-2015	35,000,000	2.0-5.0	05/20/15	07/01/45	33,625,000		725,000		32,900,000
Revenue Bond, Series GG-2016	40,000,000	2.0-5.0	08/05/16	07/01/46	39,225,000		825,000		38,400,000
Revenue Bond Refunding, Series HH-2017	23,445,000	2.5-5.0	04/07/17	07/01/27	23,390,000		1,890,000		21,500,000
Revenue Bond, Series II-2017	40,000,000	3.0-5.0	09/15/17	07/01/47	40,000,000		700,000		39,300,000
Revenue Bond, Series JJ-2018	39,995,000	3.0-5.0	09/14/18	07/01/47	-	39,995,000	-		39,995,000
					$ 294,450,000	$ 39,995,000	$ 12,275,000	$ -	$ 322,170,000

Knoxville Utilities Board Electric Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)

Schedule 4

Rate Class		Base Charge			Number of Customers
Residential		Customer Charge:	$20.60 per month, less Hydro Allocation Credit: $1.60 per month.		184,819
		Energy Charge:	Summer Period	$0.08973 per kWh per month.	
			Winter Period	$0.08932 per kWh per month.	
			Transition Period	$0.08932 per kWh per month.	
Commercial/ Industrial	**A. 1.**	If (a) the higher of (i) the customer's currently effective contract demand, if any, or (ii) its highest billing demand during the latest 12-month period is not more than 50 kWh, and (b) customer's monthly energy takings for any month during such period do not exceed 15,000 kWh:			19,843
		Customer Charge:	$28.00 per delivery point per month.		
		Energy Charge:	Summer Period	$0.10944 per kWh per month.	
			Winter Period	$0.10903 per kWh per month.	
			Transition Period	$0.10903 per kWh per month.	
	2.	If (a) the higher of (i) the customer's currently effective contract demand or (ii) its highest billing demand during the latest 12-month period is greater than 50 kW but not more than 1,000 kW, or (b) if the customer's billing demand is less than 50 kW and its energy takings for any month during such period exceed 15,000 kWh:			2,703
		Customer Charge:	$85.00 per delivery point per month.		
		Demand Charge:	First 50 kW of billing demand per month, no demand charge.		
			Excess over 50 kW of billing demand per month, at		
			Summer Period	$14.81 per kW.	
			Winter Period	$14.02 per kW.	
			Transition Period	$14.02 per kW.	
		Energy Charge:	Summer Period	First 15,000 kWh per month at $0.13519 per kWh Additional kWh per month at $.06004 per kWh.	
			Winter Period	First 15,000 kWh per month at $0.13478 per kWh Additional kWh per month at $.06004 per kWh.	
			Transition Period	First 15,000 kWh per month at $0.13478 per kWh Additional kWh per month at $.06004 per kWh.	

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Rate Class					Number of Customers
	3.	If (a) the higher of the customer's currently effective contract demand or (b) its highest billing demand during the latest 12-month period is greater than 1,000 kW:			41
		Customer Charge:	$230.00 per delivery point per month.		
		Demand Charge:	Summer Period	First 1,000 kW of billing demand per month, at $15.51 per kW. Excess over 1,000 kW of billing demand per month, at $16.16 per kW, plus an additional $16.16 per kW per month for each kW, if any, of the amount by which the customer's billing demand exceeds the higher of 2,500 kW or its contract demand.	
			Winter Period	First 1,000 kW of billing demand per month, at $14.75 per kW. Excess over 1,000 kW of billing demand per month, at $15.40 per kW, plus an additional $15.40 per kW per month for each kW, if any, of the amount by which the customer's billing demand exceeds the higher of 2,500 kW or its contract demand.	
			Transition Period	First 1,000 kW of billing demand per month, at $14.75 per kW. Excess over 1,000 kW of billing demand per month, at $15.40 per kW, plus an additional $15.40 per kW per month for each kW, if any, of the amount by which the customer's billing demand exceeds the higher of 2,500 kW or its contract demand.	
		Energy Charge:	Summer Period	$0.06936 per kWh per month.	
			Winter Period	$0.06936 per kWh per month.	
			Transition Period	$0.06936 per kWh per month.	

Rate Class		Base Charge			Number of Customers
Commercial/ Industrial	**B.**	This rate shall apply to the firm electric power requirements where a customer's currently effective contract demand is greater than 5,000 kW but not more than 15,000 kW:			4
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.91 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.15 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$17.06 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.94 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.15 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$16.09 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.94 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.15 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$16.09 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

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Energy Charge:

Summer Period	Onpeak	$0.08489 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05988 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02516 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02174 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.07348 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.06210 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02516 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02174 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05955 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05955 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02516 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02174 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01608 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Rate Class		**Base Charge**			**Number of Customers**
Commercial/ Industrial	**C.**	This rate shall apply to the firm electric power requirements where a customer's currently effective contract demand is greater than 15,000 kW but not more than 25,000 kW:			1
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.91 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.03 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$16.94 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.94 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.03 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$15.97 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.94 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.03 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$15.97 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

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Energy Charge:		
Summer Period	Onpeak	$0.08480 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05979 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02507 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02165 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.07339 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.06201 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02507 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02165 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05946 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05946 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02507 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02165 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01608 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Rate Class		Base Charge			Number of Customers
Commercial/ Industrial	**D.**	This rate shall apply to the firm electric power requirements where a customer's currently effective contract demand is greater than 25,000 kW:			1
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.91 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$5.90 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$16.81 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.94 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$5.90 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$15.84 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.94 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$5.90 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$15.84 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

Energy Charge:

Summer Period	Onpeak	$0.08471 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05970 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02384 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02156 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.07330 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.06192 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02384 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02156 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05937 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05937 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02384 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02156 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01608 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Rate Class		Base Charge			Number of Customers
Commercial/ Industrial Time of Use	**A.**	This rate shall apply to the firm electric power requirements where a customer's currently effective contract demand is greater than 1,000 kW but not more than 5,000 kW:			8
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.99 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.77 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$17.76 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$10.03 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.77 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$16.80 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$10.03 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$6.77 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$16.80 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

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Energy Charge:		
Summer Period	Onpeak	$0.10651 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.07289 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.03024 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02720 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.09117 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.07586 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.03024 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02720 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.07706 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.07706 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.03024 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02720 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01747 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Rate Class		Base Charge			Number of Customers
Manufacturing	**B.**	This rate shall apply to the firm electric power requirements where (a) a customer's currently effective contract demand is greater than 5,000 kW but not more than 15,000 kW and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.			1
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.28 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$3.18 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$13.46 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$3.18 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$12.49 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$3.18 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$12.49 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

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Energy Charge:		
Summer Period	Onpeak	$0.07756 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05247 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02265 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02010 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.06611 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05471 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02265 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02010 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05558 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05558 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02265 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02010 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01622 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Rate Class		Base Charge			Number of Customers
Manufacturing	**C.**	This rate shall apply to the firm electric power requirements where (a) a customer's currently effective contract demand is greater than 15,000 kW but not more than 25,000 kW and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.			1
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.28 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$3.06 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$13.34 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$3.06 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$12.37 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$3.06 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$12.37 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

Energy Charge:

Summer Period	Onpeak	$0.07639 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05129 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02403 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02403 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.06494 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05352 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02403 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02403 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05440 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05440 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02403 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02403 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01622 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

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Rate Class		Base Charge			Number of Customers
Manufacturing	**D.**	This rate shall apply to the firm electric power requirements where (a) a customer's currently effective contract demand is greater than 25,000 kW and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.			1
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.28 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$2.69 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$12.97 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$2.69 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$12.00 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$2.69 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$12.00 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

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Energy Charge:

Summer Period	Onpeak	$0.07322 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.04812 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02145 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02086 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.06176 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05035 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02145 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02086 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05122 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05122 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02145 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02086 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01622 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Rate Class		Base Charge			Number of Customers
Manufacturing Time of Use	**A.**	This rate shall apply to the firm electric power requirements where (a) a customer's currently effective contract demand is greater than 1,000 kW but not more than 5,000 kW and (b) the major use of electricity is for activities conducted at the delivery point serving that customer which are classified with a 2-digit Standard Industrial Classification Code between 20 and 39, inclusive, or classified with 2002 North American Industry Classification System (NAICS) code 5181, or 2007 NAICS codes 5182, 522320, and 541214.			5
		Customer Charge:	$1,500 per delivery point per month.		
		Administrative Charge:	$700 per delivery point per month.		
		Demand Charge:			
		Summer Period	Onpeak Demand	$10.28 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$5.10 per kW per month of the customer's maximum billing demand, plus	
			Excess Demand	$15.38 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Winter Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$5.10 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$14.41 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	
		Transition Period	Onpeak Demand	$9.31 per kW per month of the customer's onpeak billing demand, plus	
			Maximum Demand	$5.10 per kW per month of the customer's maximum billing demand plus	
			Excess Demand	$14.41 per kW per month for each kW of the amount, if any, by which (1) the customer's onpeak billing demand exceeds its onpeak contract demand or (2) the customer's offpeak billing demand exceeds its offpeak contract demand, whichever is higher.	

Knoxville Utilities Board Electric Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)
Schedule 4

Energy Charge:

Summer Period	Onpeak	$0.08135 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05625 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02872 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02616 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Winter Period	Onpeak	$0.06989 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05849 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02872 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02616 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.
Transition Period	Onpeak	$0.05938 per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	$0.05938 per kWh per month for the first 200 hours use of onpeak metered demand multiplied by the ratio of offpeak energy to toal energy, plus
	Block 2	$0.02872 per kWh per month for the next 200 hours use of onpeak metered demand multiplied by the ratio of offpeak enegy to total energy, plus
	Block 3	$0.02616 per kWh per month for the hours use of onpeak metered demand in excess of 400 hours multiplied by the ratio of offpeak energy to total energy.

For the Summer Period, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate of $0.01747 per kWh per month shall be applied to the portion, if any, of the minimum offpeak energy takings amount that is greater than the metered energy.

Knoxville Utilities Board Electric Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)
Schedule 4

Rate Class	Base Charge	Number of Customers
Outdoor Lighting		
	Part A - Charges for Street and Park Lighting Systems, Traffic Signal Systems, and Athletic Field Lighting Installations	54

Energy Charge:	Summer Period	$0.08053 per kWh per month.
	Winter Period	$0.08053 per kWh per month.
	Transition Period	$0.08053 per kWh per month.

Facility Charge: The annual facility charge shall be 15.76 percent of the installed cost to KUB's electric system of the facilities devoted to street and park lighting service specified in this Part A. Such installed cost shall be recomputed on July 1 of each year, or more often if substantial changes in the facilities are made. Each month, one-twelfth of the then total annual facility charge shall be billed to the customer. If any part of the facilities has not been provided at the electric system's expense, or if the installed cost of any portion thereof is reflected on the books of another municipality or agency or department, the annual facility charge shall be adjusted to reflect properly the remaining cost to be borne by the electric system.

Customer Charge: $2.50.

Rate Class	Base Charge	Number of Customers
	Part B - Charges for Outdoor Lighting for Individual Customers	1500

Charges Per Fixture Per Month

a.	Type of Fixture	(Watts)	(Lumens)	Rated kWh	Facility Charge	Total Lamp Charge
	Mercury Vapor or Incandescent*	175	7,650	70	$ 4.93	$ 10.57
		400	19,100	155	6.88	19.36
		1000**	47,500	378	11.01	41.45
	High Pressure Sodium	100	8,550	42	4.93	8.31
		250	23,000	105	5.84	14.30
		400	45,000	165	6.88	20.17
		1000**	126,000	385	11.01	42.01
	Decorative	100	8,550	42	5.61	8.99

* Mercury Vapor and Incandescent fixtures not offered for new service.

** 1,000 watt fixtures not offered for new service.

b. Energy Charge: For each lamp size under **a.** above, $0.08053 per rated kWh per month.

Additional pole charge: $5.00 per pole.

Rate Class	Base Charge	Number of Customers
LED Outdoor Lighting		-

Charges Per Fixture Per Month

a.	**Lamp Size**	**Rated kWh**	**Facility Charge**	**Total Lamp Charge**
	100 WE	21	$ 5.67	$ 7.36
	250 WE	58	7.01	11.68
	400 WE	79	9.63	15.99

b. Energy Charge: For each lamp size under **a.** above, $0.08053 per rated kWh per month.

Additional pole charge: $5.00 per pole.

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Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Board of Commissioners
Electric Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Electric Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements, and have issued our report thereon dated October 30, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Division's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we do not express an opinion on the effectiveness of the Division's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Division's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Commissioners
Electric Division of the Knoxville Utilities Board
Knoxville, Tennessee

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Division's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*, but other matters that are required to be reported under the State of Tennessee Audit Manual are referenced as 2019-02 in the accompanying Schedule of Findings and Questioned Costs.

Purpose of Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Division's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board Electric Division
Schedule of Findings and Questioned Costs
June 30, 2019

Section I -- Summary of Auditor's Results

Financial Statements

Type of auditors' report issued:	Unmodified
Internal control over financial reporting: Material weakness(es) identified?	No
Significant deficiency(s) identified not considered to be material weaknesses?	None reported
Noncompliance material to financial statements:	No

Section II -- Financial Statement Findings
None reported.

Section III – Findings Required by the State of Tennessee Audit Manual

2019-02

Condition, Criteria, Cause, Questioned Costs and Effect
In November 2018, it was discovered that an employee in the KUB Electrical Engineering Department in the Electric Division had falsified timesheets resulting in $7,907.79 of overpayments for false time reported.

Recommendations
None

Management's Response and Corrective Action Plan
The employee resigned in lieu of termination. The employee paid full restitution of $7,907.79 to KUB.

Section IV -- Summary Schedule of Prior Year Audit Findings
Not applicable as there were no prior year findings reported.

Knoxville Utilities Board

Gas Division

Financial Statements and Supplemental Information
June 30, 2019 and 2018

KUB Board of Commissioners

Kathy Hamilton - Chair

Tyvi Small - Vice Chair

Dr. Jerry W. Askew

Celeste Herbert

Sara Hedstrom Pinnell

Adrienne Simpson-Brown

John Worden

Management

Gabriel Bolas II
President and
Chief Executive Officer

Mark Walker
Senior Vice President and
Chief Financial Officer

Susan Edwards
Senior Vice President and
Chief Administrative Officer

Derwin Hagood
Senior Vice President and
Chief Operating Officer

Eddie Black
Senior Vice President and
Chief Technology Officer

John Williams
Vice President of
Construction

Mike Bolin
Vice President of Utility
Advancement

Julie Childers
Vice President and
Century II Administrator

John Gresham
Vice President of
Operations

Knoxville Utilities Board Gas Division
Index
June 30, 2019 and 2018

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Independent Auditor's Report

Board of Commissioners
Gas Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited the accompanying financial statements of the Gas Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements as listed in the index.

Management's Responsibility for the Financial Statements

The Division's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Division's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Gas Division of the Knoxville Utilities Board as of June 30, 2019 and 2018, and the changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Board of Commissioners
Gas Division of the Knoxville Utilities Board
Knoxville, Tennessee

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 25 and the required supplementary information on pages 62 through 66 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Division's basic financial statements. The supplemental information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplemental information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Gas Division and do not purport to, and do not, present fairly the financial position of the Knoxville Utilities Board, as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2019, on our consideration of the Division's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control over financial reporting and compliance.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board (KUB), comprised of Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions. The Gas Division (Division) provides services to certain customers in Knox County and portions of Anderson and Loudon counties. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the Federal Energy Regulatory Commission and the Governmental Accounting Standards Board, as applicable. The financial statements present only the Gas Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Division's discussion and analysis is designed to (a) assist the reader in focusing on significant financial issues, (b) provide an overview of the Division's financial activity, (c) identify major changes in the Division's financial position, and (d) identify any financial concerns.

The Division's Management Discussion and Analysis (MD&A) focuses on the fiscal year ending June 30, 2019 activities, resulting changes and current known facts, and should be read in conjunction with the Division's financial statements.

Gas Division Highlights

System Highlights

KUB's natural gas system serves 103,399 customers, and its service territory covers 289 square miles. KUB maintains 2,460 miles of service mains to provide 12.4 million dekatherms of natural gas to its customers annually.

In mid-December 2018, East Tennessee Natural Gas (subsidiary Enbridge), experienced an incident on a section of natural gas transmission pipeline in Smith County, Tennessee that led to KUB working with interruptible natural gas customers on usage curtailment as well as encouraging the public to voluntarily conserve. Though service to residential customers was sustained during the pipeline event, interruptible customers were curtailed for a two-week period, affecting consumption and revenue from these customers.

KUB's utility system was impacted by record rainfall in fiscal year 2019, including record-setting rainfall and widespread flooding in February 2019. KUB expects to receive reimbursements in fiscal year 2020 from the Federal Emergency Management Agency (FEMA) to partially offset the cost of the 2019 storm and flood event.

KUB's natural gas system service territory experienced warmer temperatures this past winter compared to the previous year. As a result, billed natural gas sales decreased 5.6 percent when compared to fiscal year 2018. Gas Division margin (operating revenue less purchased gas cost) was $0.4 million higher in fiscal year 2019. The increase is the net result of lower billed sales volumes and additional revenue from the natural gas system rate increase effective October 2018.

The natural gas system's peak demand occurred in January 2018 at 140,204 dekatherms.

The natural gas system has added 3,591 customers over the past three years representing annual growth of one percent. In fiscal year 2019, 1,200 customers were added.

The typical residential gas customer's average monthly gas bill was $57.53 for the twelve months ending June 30, 2019. The average monthly bill decreased $0.86 compared to last fiscal year, the result of the October 2018 gas rate increase offset by the flow-through of over recovered purchased gas costs from fiscal year 2018.

KUB's natural gas system was named to the American Public Gas Association's (APGA) System Operational Achievement Recognition (SOAR) Program in 2018, reflecting KUB's focus on system integrity, continuous improvement, safety and employee development. KUB is a Silver level winner and remains a member of the program through 2020.

Century II Infrastructure Program

Century II is KUB's proactive long-range program to improve and maintain the electric, natural gas, water and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In fiscal year 2015, KUB concluded the smart grid pilot project, of which a portion of the project was funded by a United States Department of Energy Smart Grid Investment Grant (SGIG). This grant was received by KUB in 2009 as part of the American Reinvestment and Recovery Act (ARRA). Based upon the success of that pilot, KUB formed a plan to move forward with a Century II Grid Modernization initiative, which includes advanced metering for all KUB customers, a telecommunication system linking critical KUB infrastructure, and an increased investment in automation technology to help operate KUB's energy and water distribution systems. Over the course of ten years, KUB plans to spend $124.4 million in this effort, of which the Gas Division's share is $19.2 million. The deployment is funded in large part by debt issues and system revenues. As of June 30, 2019, KUB completed its third year of the four-year advanced meters deployment, including the installation of network communication devices on 79 percent of KUB's natural gas meters at a total cost of $10.1 million. The advanced meter deployment is on track and on budget.

In May 2017, a new Century II funding resolution was adopted by the KUB Board of Commissioners to express the continued commitment to funding Century II programs for the next ten years. The funding will be achieved through a combination of rate increases and debt issues supplemented by cost savings and new revenue from net customer additions.

In June 2017, the Board approved the next phase of gas rate increases to support the Century II program. The first two of the three approved gas rate increases went into effect in October 2017 and October 2018, generating $2.2 million and $2.3 million in additional annual revenue, respectively. The remaining rate increase is effective in October 2019 and is expected to provide an additional $2.3 million in annual revenue to assist with the funding of the Gas Division.

During the fiscal year, KUB replaced 12.1 miles of steel gas mains, exceeding the target of 10 miles, while staying on track with Century II goals and within the Gas Division's total capital budget.

Financial Highlights

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's net position increased $15.7 million in fiscal year 2019 compared to a $17.9 million increase last fiscal year. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by $0.8 million during the fiscal year 2018. The change resulted in a total increase of $18.7 million in the Division's net position.

Operating revenue decreased $6 million or 5.2 percent. The decrease is attributable to lower billed volumes of 5.6 percent, additional revenue from the October 2018 rate increase and the flow through of prior year over recovered purchased gas costs to KUB's gas customers. KUB flows changes to wholesale gas costs directly through to its retail gas rates via the Purchased Gas Adjustment. Purchased gas expense was $6.4 million or 11.4 percent lower primarily due to lower customer demand. Margin on gas sales (operating revenue less purchased gas expense) increased $0.4 million or 0.7 percent, reflecting the decrease in gas sales volumes and additional revenue from the rate increase.

Operating expenses (excluding purchased gas expense) increased $3.5 million or 9.4 percent. Operating and maintenance (O&M) expenses were $3 million more than the prior fiscal year. Depreciation expense increased $0.2 million and taxes and tax equivalents were $0.2 million higher than the prior year.

Wholesale purchased gas expense represented 47 percent of natural gas sales revenue for the fiscal year ended June 30, 2019.

Interest income increased $0.5 million compared to the prior fiscal year. Interest expense increased $0.1 million.

Total plant assets (net) increased $14 million or 5 percent reflecting capital investment associated with the replacement of key gas system assets and other major system projects.

KUB sold $8 million in gas system revenue bonds in August 2018 for the purpose of funding gas system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.49 percent.

Long-term debt represented 32.9 percent of the Division's capital structure as of June 30, 2019, as compared to 34.1 percent last year. Capital structure equals long-term debt (which includes the current and long-term portion of revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 3.68. Maximum debt service coverage was 3.66.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's net position increased $17.9 million in fiscal year 2018. This increase was $11.8 million higher than the prior year's change in net position. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by $0.8 million during the fiscal year 2018. The change resulted in a total increase of $18.7 million in the Division's net position.

Operating revenue increased $22.7 million or 24.7 percent. The increase is attributable to higher billed volumes of 20.8 percent, additional revenue from the October 2017 rate increase and the flow through of prior year under recovered purchased gas costs to KUB's gas customers. KUB flows changes to wholesale gas costs directly through to its retail gas rates via the Purchased Gas Adjustment. Purchased gas expense was $12.4 million or 28.3 percent higher primarily due to higher customer demand. Margin on gas sales (operating revenue less purchased gas expense) increased $10.3 million or 21.4 percent, reflecting the increase in gas sales volumes and additional revenue from the rate increases.

Operating expenses (excluding purchased gas expense) decreased $1.3 million or 3.4 percent. Operating and maintenance (O&M) expenses were $1.7 million less than the prior fiscal year. Depreciation expense increased $0.5 million and taxes and tax equivalents were less than $0.1 million lower than the prior year.

Wholesale purchased gas expense represented 50 percent of natural gas sales revenue for the fiscal year ended June 30, 2018.

Interest income increased $0.3 million compared to the prior fiscal year. Interest expense increased $0.1 million.

Total plant assets (net) increased $6.8 million or 2.5 percent reflecting capital investment associated with the replacement of key gas system assets and other major system projects.

KUB sold $12 million in gas system revenue bonds in August 2017 for the purpose of funding gas system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.07 percent.

Long-term debt represented 34.1 percent of the Division’s capital structure as of June 30, 2018, as compared to 34.9 percent last year. Capital structure equals long-term debt (which includes the current and long-term portion of revenue bonds and notes) plus net position.

The Division’s bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division’s outstanding bonds. Current year debt coverage for the fiscal year was 4.10. Maximum debt service coverage was 4.00.

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Knoxville Utilities Board Gas Division - Financial Statements

The Division's financial performance is reported under three basic financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows.

Statement of Net Position

The Division reports its assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position in the Statement of Net Position. Assets are classified as current, restricted, gas plant in service, or other assets.

Liabilities are classified as current, other, or long-term debt. Net position is classified as net investment in capital assets, restricted, or unrestricted. Net position represents what was previously reported as accumulated or retained earnings. Net position tells the user what the Division has done with its accumulated earnings, not just the balance.

Net investment in capital assets is the net book value of all capital assets less the outstanding balances of debt used to acquire, construct, or improve those assets.

Restricted net position includes assets that have been limited to specific uses by the Division's bond covenants or through resolutions passed by the KUB Board.

Unrestricted net position is a residual classification; the amount remaining after reporting net position as either invested in capital or restricted is reported there.

Statement of Revenues, Expenses and Changes in Net Position

The Division reports its revenues and expenses (both operating and non-operating) on the Statement of Revenues, Expenses and Changes in Net Position. In addition, any contributions in aid of construction (funds received via grants, developers, etc. to fund capital projects) and associated write-downs of plant assets are reported on this statement.

Total revenue less total expense equals the change in net position for the reporting. Net position at the beginning of the period are increased or decreased, as applicable, by the change in net position for the reporting period.

The change in net position for the reporting period is added to the net position segment of the Statement of Net Position.

Statement of Cash Flows

The Divisions reports its cash flows from operating activities, capital and related financing activities, and investing activities on its Statement of Cash Flows. This statement tells the user the Division's sources and uses of cash during the reporting period.

The statement indicates the Division's beginning cash balance and ending cash balance and how it was either increased or decreased during the reporting period.

The statement also reconciles cash flow back to operating income as it appears on the Statement of Revenues, Expenses and Changes in Net Position.

Condensed Financial Statements

Statement of Net Position

The following table reflects the condensed Statement of Net Position for the Gas Division compared to the prior two fiscal years.

Statements of Net Position
As of June 30

(in thousands of dollars)	2019	2018	2017
Current, restricted and other assets	$ 73,327	$ 75,388	$ 55,347
Capital assets, net	292,090	278,095	271,285
Deferred outflows of resources	4,244	1,438	2,646
Total assets and deferred outflows of resources	369,661	354,921	329,278
Current and other liabilities	22,022	22,132	22,214
Long-term debt outstanding	112,624	111,661	106,162
Deferred inflows of resources	653	2,424	895
Total liabilities and deferred inflows of resources	135,299	136,217	129,271
Net position			
Net investment in capital assets	173,774	161,294	160,725
Restricted	2,174	2,050	1,875
Unrestricted	58,414	55,360	37,407
Total net position	$ 234,362	$ 218,704	$ 200,007

Normal Impacts on Statement of Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Net Position presentation.

- Change in net position (from Statement of Revenues, Expenses and Changes in Net Position): impacts (increase/decrease) current and other assets and/or capital assets and unrestricted net position.
- Issuing debt for capital: increases deferred outflows of resources and long-term debt.
- Spending debt proceeds on new capital: reduces current assets and increases capital assets.
- Spending of non-debt related current assets on new capital: (a) reduces current assets and increases capital assets and (b) reduces unrestricted net position and increases net investment in capital assets.
- Principal payment on debt: (a) reduces current and other assets and reduces long-term debt and (b) reduces unrestricted net position and increases net investment in capital assets.
- Reduction of capital assets through depreciation: reduces capital assets and net investment in capital assets.

Impacts and Analysis

Current, Restricted and Other Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Current, restricted and other assets decreased $2.1 million or 2.7 percent, primarily due to a decrease in the actuarially determined net pension asset of $3.4 million.

KUB under recovered $1.3 million in wholesale gas costs from its customers in fiscal year 2019, as compared to an over recovery in fiscal year 2018. This under recovery of costs will be collected from KUB's gas customers during the next fiscal year through adjustments to rates via the Purchased Gas Adjustment.

Gas storage increased $0.2 million, reflecting three percent higher storage volumes compared to the prior fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current, restricted and other assets increased $20 million or 36.2 percent, primarily due to a $18 million increase in general fund cash (consisting of cash and cash equivalents, short-term investments and long-term investments), an increase in the actuarially determined net pension asset of $3.3 million, and an increase of $1.2 million in accounts receivable.

Fiscal year 2017's $3.8 million under recovery of wholesale gas costs was collected from customers in fiscal year 2018 through adjustments to rates via the Purchased Gas Adjustment. Gas storage decreased $0.8 million, reflecting 12.9 percent lower storage volumes compared to the prior fiscal year.

Capital Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Capital assets increased $14 million or 5 percent. Major capital expenditures during the year included $4.7 million for steel mains and services, $4.6 million for the replacement and relocation of gas system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, $4.6 million for the construction of service extensions, $2.5 million for the construction of gas mains and $2 million for the deployment of advanced metering equipment. The Gas Division retired $4.7 million of natural gas system assets during the fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Capital assets increased $6.8 million or 2.5 percent. Major capital expenditures during the year included $4.8 million for the replacement and relocation of gas system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, $4.5 million for the construction of service extensions, $2.8 million for steel mains and services, $1.2 million for the deployment of advanced metering equipment and $0.6 million for trucks and equipment. The Gas Division retired $6.8 million of natural gas system assets during the fiscal year.

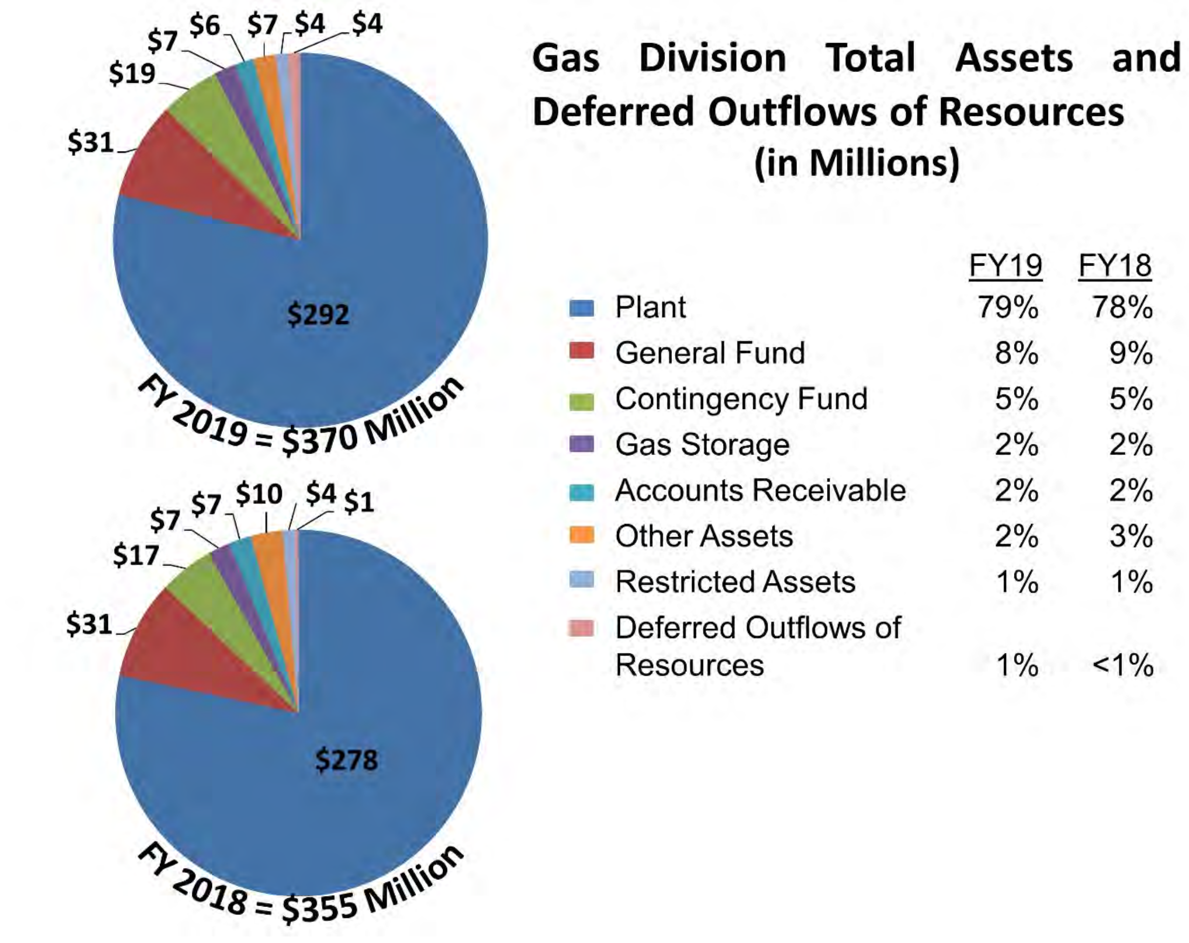
Deferred Outflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred outflows of resources increased $2.8 million compared to the prior fiscal year. This increase is attributable to a $2.6 million increase in pension outflow.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred outflows of resources decreased $1.2 million compared to the prior fiscal year. This decrease is attributable to a $1.2 million decrease in pension outflow.



Gas Division Total Assets and Deferred Outflows of Resources (in Millions)

	FY19	FY18
Plant	79%	78%
General Fund	8%	9%
Contingency Fund	5%	5%
Gas Storage	2%	2%
Accounts Receivable	2%	2%
Other Assets	2%	3%
Restricted Assets	1%	1%
Deferred Outflows of Resources	1%	<1%

Current and Other Liabilities

Fiscal Year 2019 Compared to Fiscal Year 2018

Current and other liabilities decreased $0.1 million compared to the prior fiscal year. The current portion of revenue bonds increased $0.4 million and net pension liability increased $1.1 million. These increases were offset by a decrease of $1 million in accounts payable compared to the prior fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current and other liabilities decreased $0.1 million compared to the prior fiscal year. KUB over recovered $1.5 million in wholesale gas costs from its customers in fiscal year 2018, as compared to an under recovery in fiscal year 2017. This over recovery of costs will be flowed back to KUB’s gas customers during the next fiscal year through adjustments to rates via the Purchased Gas Adjustment. The current portion of revenue bonds increased $0.4 million and customer advances for construction increased $0.3 million. These increases were offset by a decrease of $2.5 million in accounts payable compared to the prior fiscal year.

Long-Term Debt

Fiscal Year 2019 Compared to Fiscal Year 2018

Long-term debt was $1 million higher than the prior year. Natural gas system revenue bonds of $8 million, sold in August 2018, were offset by the scheduled repayment of debt.

Fiscal Year 2018 Compared to Fiscal Year 2017

Long-term debt was $5.5 million or 5.2 percent higher than the prior year. Natural gas system revenue bonds of $12 million, sold in August 2017, were offset by the scheduled repayment of debt.

Deferred Inflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred inflows of resources decreased $1.8 million compared to the prior fiscal year due to differences in pension inflows.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred inflows of resources increased $1.5 million compared to the prior fiscal year due to differences in pension inflows.

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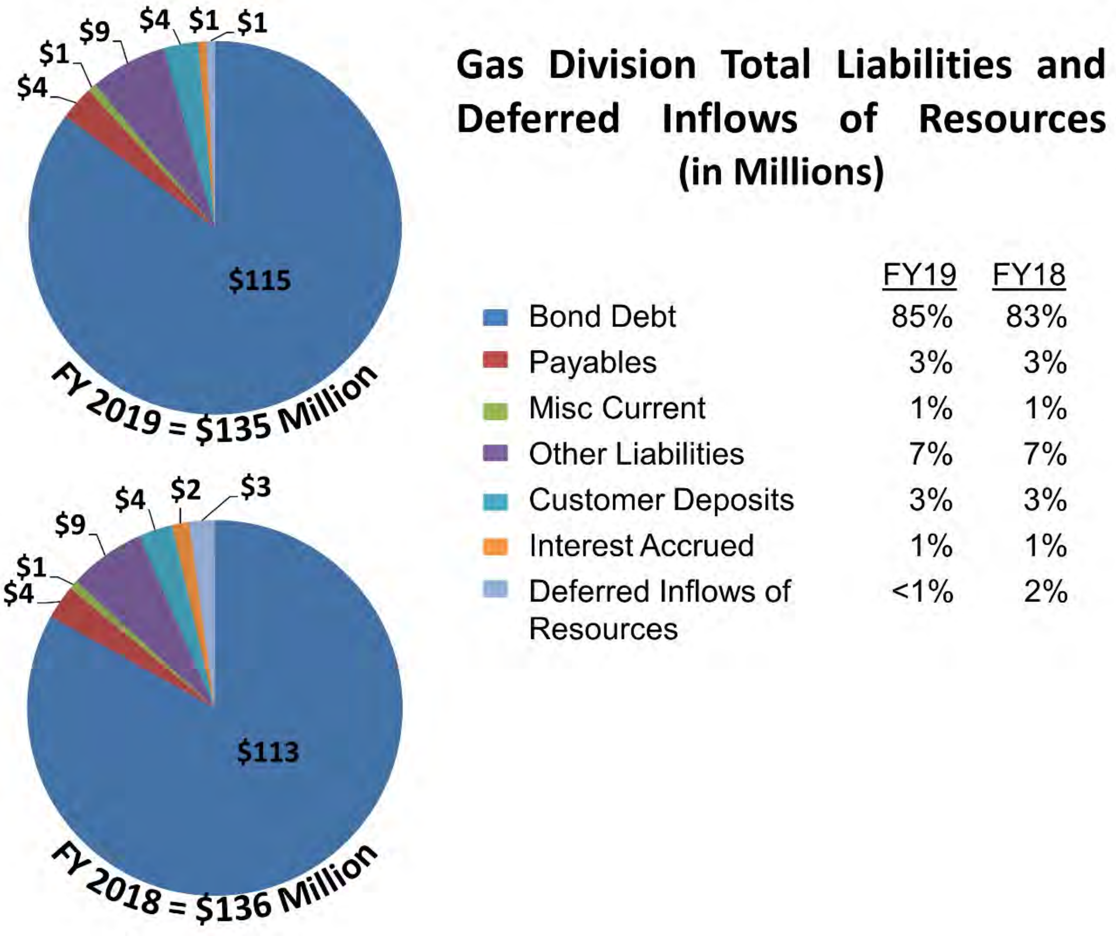

Gas Division Total Liabilities and Deferred Inflows of Resources (in Millions)

	FY19	FY18
■ Bond Debt	85%	83%
■ Payables	3%	3%
■ Misc Current	1%	1%
■ Other Liabilities	7%	7%
■ Customer Deposits	3%	3%
■ Interest Accrued	1%	1%
■ Deferred Inflows of Resources	<1%	2%

Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

Unrestricted net position increased $3.1 million, primarily due to a $2.8 million increase in deferred outflows of resources. Investment in capital assets, net of debt, increased $12.5 million, primarily from an increase in net plant in service of $14 million offset by an increase of $1.7 million in the current portion of revenue bonds and total long-term debt. Restricted net position was $0.1 million higher than the prior fiscal year, based on increases in debt service.

Fiscal Year 2018 Compared to Fiscal Year 2017

Unrestricted net position increased $18 million, primarily due to a $19.8 million increase in current and other assets compared to last fiscal year, which includes an increase of $18 million in general fund cash. Investment in capital assets, net of debt, increased $0.6 million, primarily from an increase in net plant in service of $6.8 million offset by an increase of $5.9 million in the current portion of revenue bonds and total long-term debt. Restricted net position was $0.2 million higher than the prior fiscal year, based on increases in debt service.

Statement of Revenues, Expenses and Changes in Net Position

The following table reflects the condensed Statement of Revenues, Expenses and Changes in Net Position for the Gas Division compared to the prior two fiscal years.

Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Operating revenues	$ 108,552	$ 114,539	$ 91,868
Less: Purchased gas expense	49,665	56,077	43,714
Margin from sales	58,887	58,462	48,154
Operating expenses			
Distribution	9,757	8,657	9,139
Customer service	2,888	2,486	2,718
Administrative and general	6,805	5,265	6,232
Depreciation	12,878	12,717	12,262
Taxes and tax equivalents	7,863	7,615	7,692
Total operating expenses	40,191	36,740	38,043
Operating income	18,696	21,722	10,111
Interest income	1,167	634	291
Interest expense	(4,367)	(4,260)	(4,190)
Other income/(expense)	132	(188)	(121)
Change in net position before capital contributions	15,628	17,908	6,091
Capital contributions	30	20	-
Change in net position	$ 15,658	$ 17,928	$ 6,091

Normal Impacts on Statement of Revenues, Expenses and Changes in Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Revenues, Expenses and Changes in Net Position presentation.

- Operating revenue is largely determined by volume of natural gas sales for the fiscal year. Any change (increase/decrease) in retail gas rates would also be a cause of change in operating revenue. The Division utilizes a Purchased Gas Adjustment (PGA) mechanism in setting its monthly retail gas rates. Through the PGA, the Division adjusts its retail rates each month based on current wholesale gas prices. If wholesale gas prices increase/decrease, the Division increases/decreases its retail gas rates accordingly.

- Volumes of gas purchased from the Division's wholesale gas suppliers for resale to customers impact purchased gas expense. The Division purchases gas for resale to its customers from a variety of wholesale suppliers. Changes (increase/decrease) in wholesale gas prices would also result in a change in purchased gas expense.

- Operating expenses (distribution, customer service, administrative and general) are normally impacted by changes in areas including, but not limited to, labor costs (staffing, wage rates), active employee and retiree medical costs, and gas distribution system maintenance.

- Depreciation expense is impacted by plant additions and retirements during the fiscal year.

- Taxes and tax equivalents are impacted by plant additions/retirements, changes in property tax rates, and margin (operating revenue less purchased gas expense) levels.

- Interest income is impacted by the level of interest rates and investments.

- Interest expense on debt is impacted by the level of outstanding debt and the interest rates on the outstanding debt.

- Other income/(expense) is impacted by miscellaneous non-operating revenues and expenses.

Impacts and Analysis

Change in Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's Change in Net Position increased $15.7 million in fiscal year 2019, reflecting decreased operating revenues from a warmer winter along with lower purchased gas expenses. Comparatively, net position increased by $17.9 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $0.8 million. The change resulted in a total increase of $18.7 million in the Division's net position.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's Change in Net Position increased $17.9 million in fiscal year 2018, reflecting a colder winter and decreased operating expenses. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $0.8 million. The change resulted in a total increase of $18.7 million in the Division's net position. Comparatively, net position increased by $6.1 million in fiscal year 2017.

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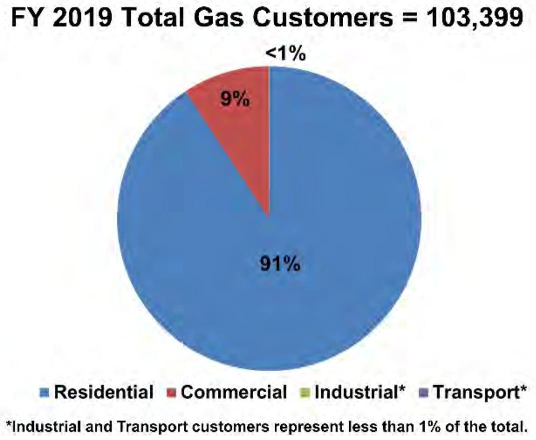
Margin from Sales

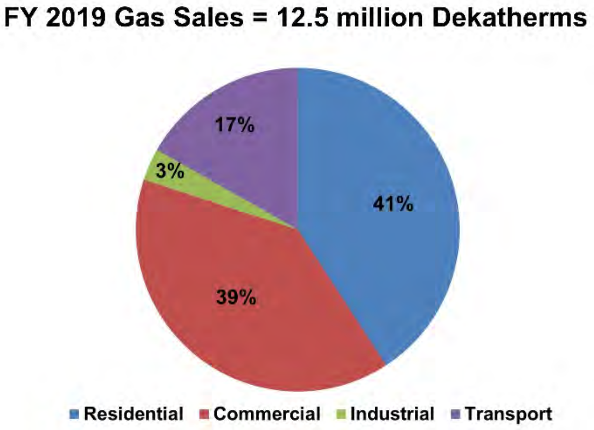
Fiscal Year 2019 Compared to Fiscal Year 2018

Margin on gas sales (operating revenue less purchased gas expense) increased $0.4 million or 0.7 percent due to revenue from the rate increase effective October 2018 and a 5.6 percent decrease in billed sales volumes.

Operating revenue decreased $6 million or 5.2 percent for the fiscal year ending June 30, 2019. The gas system service territory experienced a warmer winter than the prior fiscal year. Billed sales were down 5.6 percent. The decrease in operating revenue reflected the net impact of decreased customer demand and additional revenue from the October 2018 rate increase.

Purchased gas expense decreased $6.4 million or 11.4 percent, due to decreased customer demand. Total volumes delivered to KUB's gas distribution system decreased 2.4 percent this fiscal year. The Division's weighted average cost of gas purchased for fiscal year 2019 was $3.33 per dekatherm, as compared to $2.98 per dekatherm last year.





Residential customers, whose natural gas is primarily used as a heating source during winter months, accounted for 91 percent of customers billed and 41 percent of total volumes sold during the year.

Residential sales volumes decreased 7.1 percent, commercial sales volumes decreased 4.2 percent, industrial sales volumes decreased 13.4 percent and transport sales volumes decreased 3.6 percent. Industrial and transport sales were affected by the Enbridge pipeline incident in December 2018, which resulted in curtailment for KUB's largest customers.

KUB's ten largest gas customers accounted for 26 percent of KUB's billed gas volumes. Those ten customers represent six industrial and four commercial customers, including three governmental customers.

KUB has 17 transport customers who purchase gas directly from a supplier other than KUB. KUB provides transportation service on its gas distribution system to those customers.

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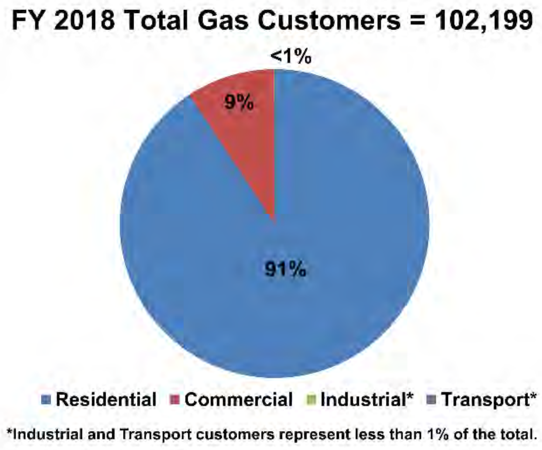
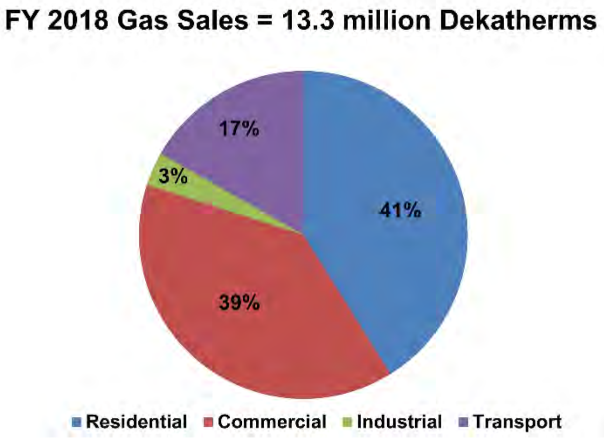
Fiscal Year 2018 Compared to Fiscal Year 2017

Margin on gas sales (operating revenue less purchased gas expense) increased $10.3 million or 21.4 percent due to revenue from the rate increase effective October 2017 and a 20.8 percent increase in billed sales volumes.

Operating revenue increased $22.7 million or 24.7 percent for the fiscal year ending June 30, 2018. The gas system service territory experienced a colder winter than the prior fiscal year's extremely mild winter. Billed sales were up 20.8 percent. The increase in operating revenue reflected increased customer demand and additional revenue from the October 2017 rate increase.

Purchased gas expense increased $12.4 million or 28.3 percent, due to increased customer demand. KUB purchased 21 percent more gas from its suppliers during the fiscal year to meet customer demand and maintain gas storage levels. This resulted in a 25.7 percent increase in total volumes delivered to KUB's gas distribution system. The Division's weighted average cost of gas purchased for fiscal year 2018 was $2.98 per dekatherm, as compared to $3.07 per dekatherm last year.





Residential customers, whose natural gas is primarily used as a heating source during winter months, accounted for 91 percent of customers billed and 41 percent of total volumes sold during the year.

Residential sales volumes increased 33 percent, commercial sales volumes increased 19.5 percent, and transport sales volumes increased 7.6 percent. Increased consumption due to normal winter conditions experienced in the service area were offset by a 12.8 percent decline in industrial sales volumes compared to the prior fiscal year.

KUB's ten largest gas customers accounted for 23 percent of KUB's billed gas volumes. Those ten customers represent six industrial and four commercial customers, including three governmental customers.

KUB has 17 transport customers who purchase gas directly from a supplier other than KUB. KUB provides transportation service on its gas distribution system to those customers.

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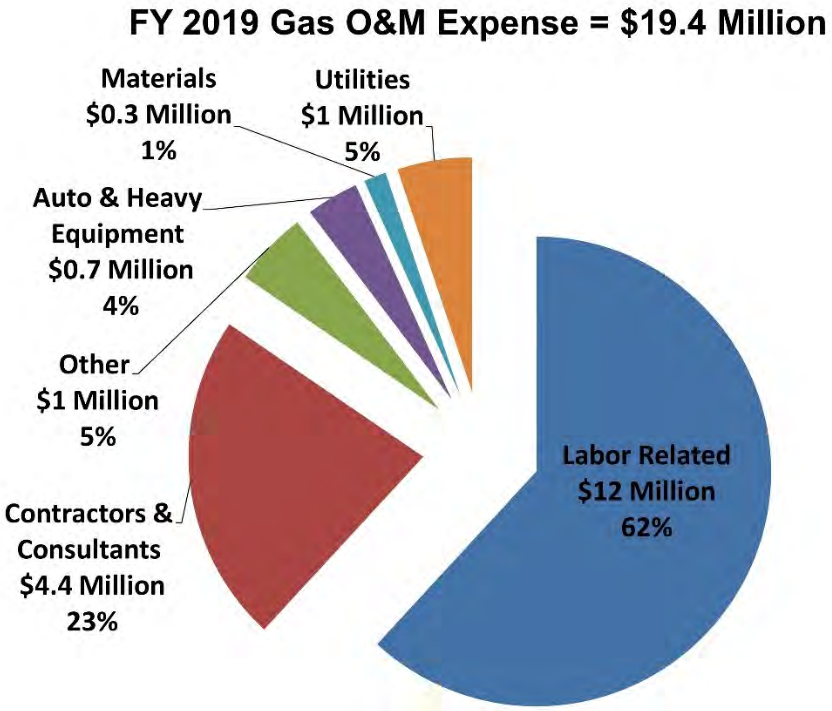
Operating Expenses

Fiscal Year 2019 Compared to Fiscal Year 2018

Operating expenses (excluding purchased gas expense) increased $3.5 million or 9.4 percent compared to fiscal year 2018. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as distribution, customer service and administrative and general.

- Distribution system O&M expenses were $1.1 million higher than the prior fiscal year due to an increase in outside contractors and consultants.
- Customer service expenses were $0.4 million higher than the prior fiscal year due to an increase in outside contractors and consultants.
- Administrative and general expenses increased $1.5 million, primarily due to labor related expenses including higher pension expenses, reflecting impact of investment losses on Pension Trust assets in 2018.

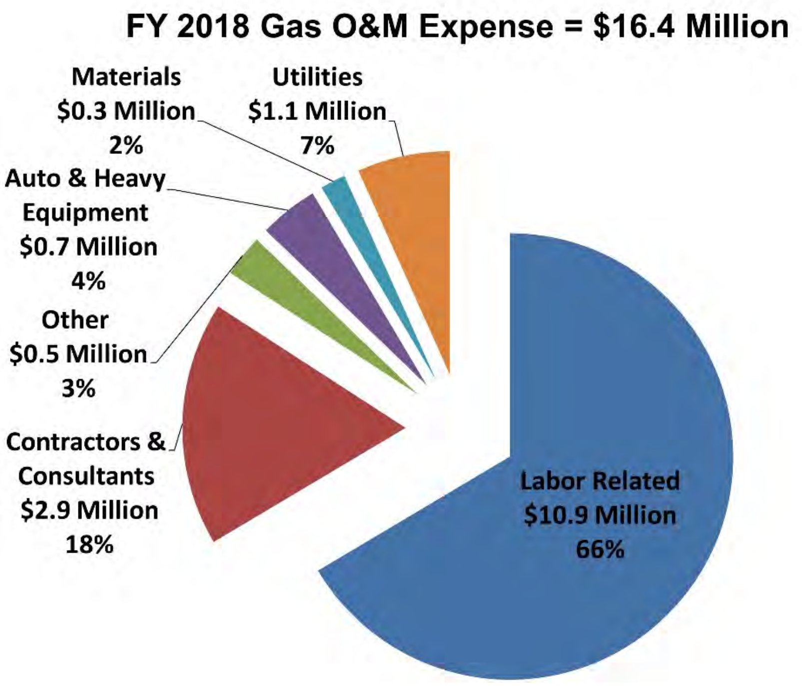


- Depreciation expense was $0.2 million higher than the prior year, primarily due to increased depreciation due to Century II replacement programs, including advanced meters.
- Taxes and tax equivalents were $0.2 million higher than the prior fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Operating expenses (excluding purchased gas expense) decreased $1.3 million or 3.4 percent compared to fiscal year 2017. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as distribution, customer service and administrative and general.

- Distribution system O&M expenses were $0.5 million lower than the prior fiscal year due to a decrease in outside contractors and consultants.
- Customer service expenses were $0.2 million lower than the prior fiscal year.
- Administrative and general expenses decreased $1 million or 15.5 percent, primarily due to labor related expenses.



- Depreciation expense was $0.5 million higher than the prior year, primarily due to increased depreciation due to Century II replacement programs, including advanced meters.
- Taxes and tax equivalents were less than $0.1 million lower than the prior fiscal year.

Other Income and Expense

Fiscal Year 2019 Compared to Fiscal Year 2018

Interest income was $0.5 million higher than the prior fiscal year, primarily due to higher short-term interest rates.

Interest expense increased $0.1 million compared with the prior year.

Other income (net) increased $0.3 million, primarily due to mark-to-market adjustments on investments.

Fiscal Year 2018 Compared to Fiscal Year 2017

Interest income was $0.3 million higher than the prior fiscal year, primarily due to higher short-term interest rates.

Interest expense increased $0.1 million compared with the prior year.

Other income (net) was down less than $0.1 million from the prior fiscal year.

Capital Assets

Capital Assets
As of June 30
(Net of Depreciation)

(in thousands of dollars)	**2019**	**2018**	**2017**
Distribution Plant			
Mains	$ 184,081	$ 185,208	182,159
Services and Meters/Regulators	74,076	66,914	61,427
Other Accounts	917	841	821
Total Distribution Plant	259,074	252,963	$ 244,407
Total General Plant	$ 9,174	$ 9,953	9,969
Total Plant Assets	268,248	262,916	$ 254,376
Work In Progress	23,842	15,179	16,909
Total Net Plant	$ 292,090	$ 278,095	$ 271,285

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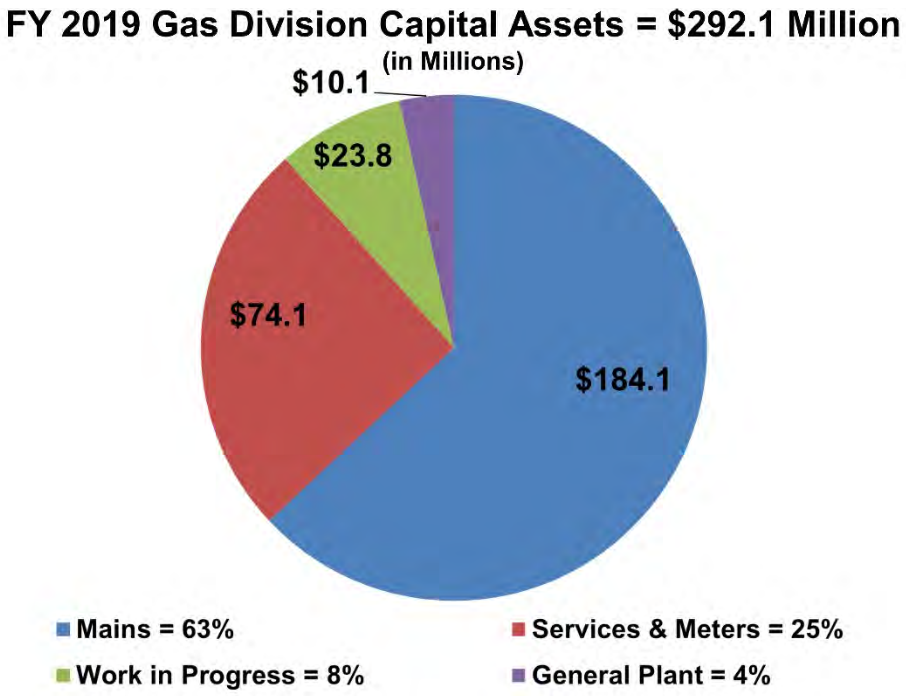
Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $292.1 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $14 million or 5 percent over the end of last fiscal year.



Major capital asset expenditures during the year were as follows:

- $4.7 million for steel mains and services
- $4.6 million for replacement and relocation of gas system assets to accommodate TDOT highway improvement projects
- $4.6 million for service extensions
- $2.5 million for the construction of gas mains
- $2 million for deployment of advanced metering equipment

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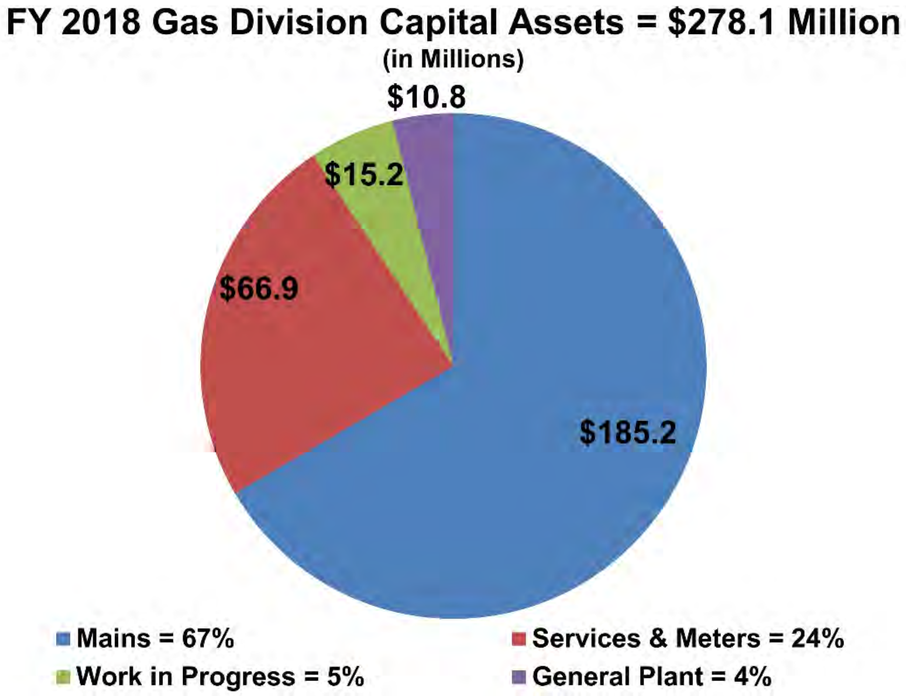
Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $278.1 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $6.8 million or 2.5 percent over the end of last fiscal year.



Major capital asset expenditures during the year were as follows:

- $4.8 million for replacement and relocation of gas system assets to accommodate TDOT highway improvement projects
- $4.5 million for service extensions
- $2.8 million for steel mains and services
- $1.2 million for deployment of advanced metering equipment
- $0.6 million for trucks and equipment

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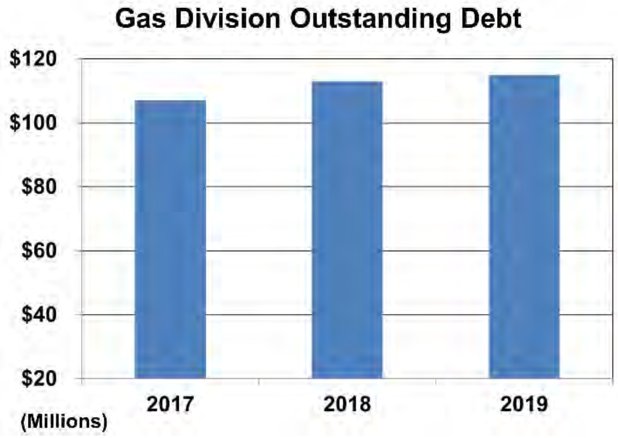
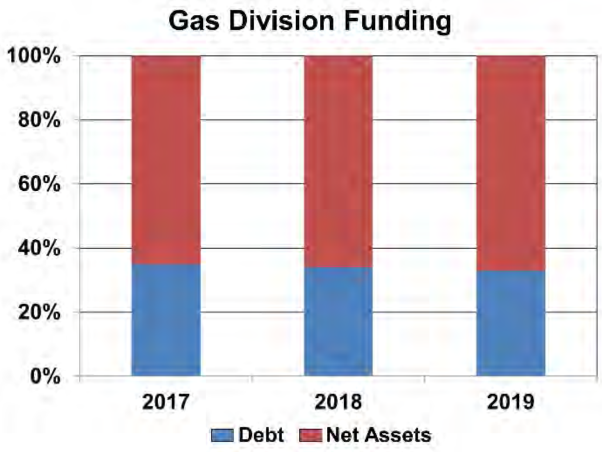
Debt Administration

As of June 30, 2019, the Gas Division had $114.9 million in outstanding gas system bonds. The bonds are secured solely by revenues of the Gas Division. Debt as a percentage of the Division's capital structure represented 32.9 percent in 2019, 34.1 percent in 2018 and 34.9 percent at the end of fiscal year 2017. KUB's Debt Management Policy limits the Division's debt ratio to 60 percent or less.

Outstanding Debt
As of June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Revenue bonds	$ 114,940	$ 113,290	$ 107,220
Total outstanding debt	$ 114,940	$ 113,290	$ 107,220





The Division will pay $70.7 million in principal payments over the next ten years, representing 61.5 percent of the outstanding bonds. KUB's Debt Management Policy requires a minimum of 30 percent of gas debt principal be repaid over the next ten years.

Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $114.9 million in outstanding debt (including current portions of revenue bonds), compared to $113.3 million last year, representing an increase of $1.6 million or 1.5 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division's weighted average cost of debt as of June 30, 2019, was 3.82 percent (3.66 percent including the impact of Build America Bonds rebates).

KUB sold $8 million in gas system revenue bonds in August 2018 for the purpose of funding gas system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.49 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2019, the Division's revenue bonds were rated AA by Standard & Poor's and Aa2 by Moody's Investors Service.

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $113.3 million in outstanding debt (including current portions of revenue bonds), compared to $107.2 million last year, representing an increase of $6.1 million or 5.7 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division's weighted average cost of debt as of June 30, 2018, was 3.84 percent (3.66 percent including the impact of Build America Bonds rebates).

KUB sold $12 million in gas system revenue bonds in August 2017 for the purpose of funding gas system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.07 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2018, the Division's revenue bonds were rated AA by Standard & Poor's and Aa2 by Moody's Investors Service.

Impacts on Future Financial Position

KUB expects to add 1,200 new gas customers in fiscal year 2020.

In June 2017, the KUB Board adopted three years of rate increases for all four utility Divisions to help fund the ongoing Century II infrastructure programs for each system. The remaining approved gas rate increase is effective October 2019 and is expected to provide an additional $2.3 million in annual revenue to assist with the funding of the Gas Division.

KUB long-term debt includes $10.3 million of Gas Division 2010 Build America Bonds (BABs). The BABs were sold on a taxable basis with the United States Treasury providing a rebate to KUB for a percentage of the interest cost. The interest rebates were subject to federal sequestration during the fiscal year and were reduced by 6.2 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

The Pension Plan actuarial valuation for the Plan year ending December 31, 2018 resulted in an actuarially determined contribution of $2,585,824 for the fiscal year ending June 30, 2020, based on the Plan's current funding policy. The Gas Division's portion of this contribution is $439,590. Subsequent to June 30, 2019, the actuarial valuation for the Plan year ending December 31, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $3,167,680 for the fiscal year ending June 30, 2021, based on the Plan's current funding policy. The Gas Division's portion of this contribution is $538,506. For the Plan year ending December 31, 2019, the Plan's actuarial funded ratio was 104.68 percent.

The OPEB Plan actuarial valuation as of January 1, 2018 resulted in an actuarially determined contribution of $311,324 for the fiscal year ending June 30, 2020, based on the Plan's current funding policy. The Gas Division's portion of this contribution is $52,925. Subsequent to June 30, 2019, the actuarial valuation as of January 1, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $757,226 for the fiscal year ending June 30, 2021, based on the Plan's current funding policy. The Gas Division's portion of this contribution is $128,728. The Plan's actuarial funded ratio was 86.3 percent.

GASB Statement No. 84, *Fiduciary Activities*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 87, *Leases*, is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period,* is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 90, *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 91, *Conduit Debt Obligations*, is effective for fiscal years beginning after December 15, 2020. KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

No other facts, decisions, or conditions are currently known which would have a significant impact on the Division's financial position or results of operations during fiscal year 2019.

Financial Contact

The Division's financial statements are designed to present users (citizens, customers, investors, and creditors) with a general overview of the Division's financial position and results of operations for the fiscal years ending June 30, 2019 and 2018. If you have questions about the statements or need additional financial information, contact KUB's Chief Financial Officer at 445 South Gay Street, Knoxville, Tennessee 37902.

Knoxville Utilities Board Gas Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Assets and Deferred Outflows of Resources		
Current assets:		
Cash and cash equivalents	$ 31,187,947	$ 31,436,054
Short-term contingency fund investments	14,806,601	4,602,663
Other current assets	734,244	1,160,707
Accrued interest receivable	12,553	8,452
Accounts receivable, less allowance of uncollectible accounts of $35,670 in 2019 and $34,801 in 2018	5,938,135	6,657,767
Inventories	2,073,199	2,718,546
Gas storage	7,251,486	7,037,629
Prepaid expenses	57,540	55,999
Total current assets	62,061,705	53,677,817
Restricted assets:		
Gas bond fund	3,634,403	3,496,022
Other funds	4,152	3,646
Total restricted assets	3,638,555	3,499,668
Gas plant in service	411,396,942	397,538,105
Less accumulated depreciation	(143,148,925)	(134,622,473)
	268,248,017	262,915,632
Retirement in progress	328,740	171,851
Construction in progress	23,512,964	15,007,964
Net plant in service	292,089,721	278,095,447
Other assets:		
Net pension asset	-	3,362,323
Net OPEB asset	-	637,682
Long-term contingency fund investments	4,478,957	12,448,693
Under recovered purchased gas costs	1,339,422	-
Other	1,808,314	1,761,696
Total other assets	7,626,693	18,210,394
Total assets	365,416,674	353,483,326
Deferred outflows of resources:		
Pension outflow	2,932,948	331,137
OPEB outflow	423,841	112,605
Unamortized bond refunding costs	887,036	993,715
Total deferred outflows of resources	4,243,825	1,437,457
Total assets and deferred outflows of resources	$ 369,660,499	$ 354,920,783

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Gas Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Liabilities, Deferred Inflows, and Net Position		
Current liabilities:		
Current portion of revenue bonds	$ 6,510,000	$ 6,140,000
Sales tax collections payable	97,619	91,873
Accounts payable	3,369,918	4,378,905
Accrued expenses	1,335,042	1,289,179
Customer deposits plus accrued interest	4,216,102	3,981,947
Accrued interest on revenue bonds	1,464,303	1,449,255
Total current liabilities	16,992,984	17,331,159
Other liabilities:		
Accrued compensated absences	1,731,060	1,577,505
Customer advances for construction	1,809,840	1,686,824
Net pension liability	1,169,879	47,658
Net OPEB liability	246,116	-
Over recovered purchased gas costs	-	1,466,723
Other	71,813	22,019
Total other liabilities	5,028,708	4,800,729
Long-term debt:		
Gas revenue bonds	108,430,000	107,150,000
Unamortized premiums/discounts	4,193,696	4,510,823
Total long-term debt	112,623,696	111,660,823
Total liabilities	134,645,388	133,792,711
Deferred inflows of resources:		
Pension inflow	653,375	2,369,348
OPEB inflow	-	54,678
Total deferred inflows of resources	653,375	2,424,026
Total liabilities and deferred inflows of resources	135,298,763	136,216,737
Net position		
Net investment in capital assets	173,773,732	161,294,129
Restricted for:		
Debt service	2,170,100	2,046,767
Other	4,152	3,646
Unrestricted	58,413,752	55,359,504
Total net position	234,361,736	218,704,046
Total liabilities, deferred inflows, and net position	$ 369,660,499	$ 354,920,783

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Gas Division

Statements of Revenues, Expenses and Changes in Net Position

Years Ended June 30, 2019 and 2018

	2019	2018
Operating revenues	$ 108,551,679	$ 114,539,188
Operating expenses		
Purchased gas	49,664,494	56,077,555
Distribution	9,757,364	8,656,548
Customer service	2,887,626	2,485,604
Administrative and general	6,804,856	5,265,333
Provision for depreciation	12,877,969	12,717,222
Taxes and tax equivalents	7,863,381	7,614,735
Total operating expenses	89,855,690	92,816,997
Operating income	18,695,989	21,722,191
Non-operating revenues (expenses)		
Contributions in aid of construction	484,617	3,954,439
Interest and dividend income	1,167,245	634,149
Interest expense	(4,524,560)	(4,420,436)
Amortization of debt costs	157,636	160,002
Write-down of plant for costs recovered through contributions	(484,617)	(3,954,439)
Other	131,589	(187,590)
Total non-operating revenues (expenses)	(3,068,090)	(3,813,875)
Change in net position before capital contributions	15,627,899	17,908,316
Capital contributions	29,791	20,125
Change in net position	15,657,690	17,928,441
Net position, beginning of year, as previously reported	218,704,046	200,006,747
Change in method of accounting for OPEB	-	768,858
Net position, beginning of year, as restated	218,704,046	200,775,605
Net position, end of year	$ 234,361,736	$ 218,704,046

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Gas Division
Statements of Cash Flows
June 30, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Cash receipts from customers	$ 108,762,332	$ 112,856,639
Cash receipts from other operations	1,201,572	602,728
Cash payments to suppliers of goods or services	(63,240,984)	(61,649,614)
Cash payments to employees for services	(8,617,381)	(9,420,861)
Payment in lieu of taxes	(7,150,052)	(6,859,312)
Net cash provided by operating activities	30,955,487	35,529,580
Cash flows from capital and related financing activities:		
Net proceeds from bond issuance	7,899,292	12,023,782
Principal paid on revenue bonds and notes payable	(6,350,000)	(5,930,000)
Interest paid on revenue bonds and notes payable	(4,509,512)	(4,318,025)
Acquisition and construction of gas plant	(27,862,864)	(23,878,125)
Changes in gas bond fund, restricted	(138,381)	(279,987)
Customer advances for construction	210,925	328,310
Proceeds received on disposal of plant	1,797	1,709
Cash received from developers and individuals for capital purposes	484,617	3,954,439
Net cash used in capital and related financing activities	(30,264,126)	(18,097,897)
Cash flows from investing activities:		
Purchase of investment securities	(6,627,561)	(8,517,352)
Maturities of investment securities	4,632,545	8,527,075
Interest received	1,141,072	622,003
Other property and investments	(85,524)	(18,585)
Net cash (used in) provided by investing activities	(939,468)	613,141
Net (decrease) increase in cash and cash equivalents	(248,107)	18,044,824
Cash and cash equivalents, beginning of year	31,436,054	13,391,230
Cash and cash equivalents, end of year	$ 31,187,947	$ 31,436,054
Reconciliation of operating income to net cash provided by operating activities		
Operating income	$ 18,695,989	$ 21,722,191
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	13,324,058	13,110,866
Changes in operating assets and liabilities:		
Accounts receivable	719,632	(1,163,257)
Inventories	645,347	(894,489)
Prepaid expenses	(215,398)	851,822
Other assets	427,234	(359,177)
Sales tax collections payable	5,746	752
Accounts payable and accrued expenses	(124,925)	(3,072,890)
Underrecovered gas costs	(2,806,145)	5,210,809
Customer deposits plus accrued interest	234,155	119,815
Other liabilities	49,794	3,138
Net cash provided by operating activities	$ 30,955,487	$ 35,529,580
Noncash capital activities:		
Acquisition of plant assets through developer contributions	$ 29,791	$ 20,125

The accompanying notes are an integral part of these financial statements.

1. Description of Business

Knoxville Utilities Board (KUB), comprised of Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions including setting rates. The Gas Division (Division) provides services to certain customers in Knox County and in two surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the Federal Energy Regulatory Commission (FERC) and the Governmental Accounting Standards Board (GASB), as applicable. The financial statements present only the Gas Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

2. Significant Accounting Policies

Basis of Accounting

In conformity with Generally Accepted Accounting Principles (GAAP), KUB follows the provisions of GASB Statement No. 34 (Statement No. 34), *Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* as amended by GASB Statement No. 63 (Statement No. 63), *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position.* Statement No. 34 established standards for external financial reporting for all state and local governmental entities. Under Statement No. 63, financial statements include deferred outflows of resources and deferred inflows of resources, in addition to assets and liabilities, and report *net position* instead of net assets. In addition, KUB follows GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* as it relates to certain items for regulatory accounting. Regulatory accounting allows a regulated utility to defer a cost (a regulatory asset) or recognize an obligation (a regulatory liability) if it is probable that, through the rate making process, there will be a corresponding increase or decrease in future revenues. Accordingly, KUB has recognized certain regulatory assets and regulatory liabilities in the accompanying Statements of Net Position.

The financial statements are prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred. The accounting and financial reporting treatment applied to the Division is determined by measurement focus. The transactions of the Division are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the Statement of Net Position. Net position (i.e., total assets and deferred outflows of resources net of total liabilities and deferred inflows of resources) is segregated into net investment in capital assets, restricted for capital activity and debt service, and unrestricted components.

Recently Adopted New Accounting Pronouncements

In November 2016, the GASB issued GASB Statement No. 83 (Statement No. 83), *Certain Asset Retirement Obligations*. The objective of this Statement is to define asset retirement obligations as a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations is required to perform future asset retirement activities related to its tangible capital assets to recognize a liability based on the guidance in this Statement. Statement No. 83 is effective for fiscal years beginning after June 15, 2018.

In April 2018, the GASB issued GASB Statement No. 88 (Statement No. 88), *Certain Disclosure Related to Debt, Including Direct Borrowings and Direct Placements.* The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowing and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Statement No. 88 is effective for fiscal years beginning after June 15, 2018.

Gas Plant

Gas plant and other property are stated on the basis of original cost. The cost of current repairs and minor replacements is charged to operating expense. The cost of renewals and improvements is capitalized. The original cost of utility plant assets retired or otherwise disposed of and the cost of removal less salvage value is charged to accumulated depreciation. When other property is retired, the related asset and accumulated depreciation are removed from the accounts, and the gain or loss is included in the results of operations.

The provision for depreciation of gas plant in service is based on the estimated useful lives of the assets, which range from three to thirty-three years, and is computed using the straight-line method. Pursuant to FERC, the caption "Provision for depreciation" in the Statements of Revenues, Expenses and Changes in Net Position does not include depreciation for transportation equipment of $446,089 in fiscal year 2019 and $393,644 in fiscal year 2018. Under regulatory accounting, interest costs are expensed as incurred with construction of plant assets.

Operating Revenue

Operating revenue consists primarily of charges for services provided by the principal operations of the KUB Gas Division. Operating revenue is recorded when the service is rendered, on a cycle basis, and includes an estimate of unbilled revenue. Revenues are reported net of bad debt expense of $102,786 in fiscal year 2018 and $128,259 in fiscal year 2019.

Non-operating Revenue

Non-operating revenue consists of revenues that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities.

Expense

When an expense is incurred for purposes for which there are both restricted and unrestricted net assets available, it is KUB's policy to apply those expenses to restricted net assets to the extent such are available and then to unrestricted net assets.

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; net position-restricted; and net position-unrestricted.

These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt also should be included in this component of net position. If there are significant unspent related debt proceeds at year end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

- Net position-restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.

- Net position-unrestricted – This component of net position consists of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Contributions in Aid of Construction and Capital Contributions

Contributions in aid of construction are cash collections from customers or others for a particular purpose, generally the construction of new facilities to serve new customers in excess of the investment KUB is willing to make for a particular incremental revenue source. KUB reduces the plant account balances to which contributions relate by the actual amount of the contribution and recognizes the contributions as non-operating revenue in accordance with Statement No. 62.

Capital contributions represent contributions of utility plant infrastructure constructed by developers and others in industrial parks and other developments, and transferred to KUB upon completion of construction and the initiation of utility service. In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, such contributions are recognized as revenues and capital assets upon receipt.

Inventories

Inventories, consisting of plant materials and operating supplies, are valued at the lower of average cost or replacement value.

Change in Method of Accounting for OPEB

In June 2015, the Governmental Accounting Standards Board (GASB) issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses reporting by governments that provide OPEB to their employees. This standard was adopted by KUB in 2018 and resulted in a restatement of beginning net position of $4,522,695 (Division’s share $768,858) to increase the net OPEB asset by $4,522,695 (Division’s share $768,858) based on revised actuarial assumptions to conform with GASB 75.

OPEB Plan

KUB’s employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and were enrolled in medical coverage on their last day are eligible for post-employment health care. KUB’s OPEB Trust was established by KUB’s Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. KUB’s policy is to fully fund the annual actuarially determined contributions, which are determined by actuarial valuation. As required by GASB Statement No. 75, KUB measures net OPEB liability as total OPEB liability less the amount of the Plan’s fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB’s measurements as of June 30, 2019 and 2018 are based on a June 30, 2019 and 2018 measurement date, respectively. The net OPEB liability is $1,447,742 (Division’s share $246,116) as of June 30, 2019 and the net OPEB asset is $3,751,068 (Division’s share $637,682) as of June 30, 2018.

Pension Plan and Qualified Excess Benefit Arrangement

KUB’s employees are participants in the Knoxville Utilities Board Pension Plan as authorized by the Charter of the City of Knoxville §1107(J) (Note 10). KUB’s policy is to fully fund the annual actuarially determined contributions. As required by GASB Statement No. 68, KUB measures net pension liability as total pension liability less the amount of the Plan’s fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB’s measurements as of June 30, 2019 and 2018 are based on a December 31, 2018 and 2017 measurement date, respectively. The net pension liability is $6,649,756 (Division’s share $1,130,459) as of June 30, 2019, and the net pension asset is $19,778,372 (Division’s share $3,362,323) as of June 30, 2018.

KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan administered by KUB (Note 11). As required by GASB Statement No. 73, KUB measures the total pension liability of the QEBA. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB’s measurements as of June 30, 2019 and 2018 are based on the December 31, 2018 and 2017 measurement dates. The total pension liability of the QEBA is $231,883 (Division’s share $39,420) as of June 30, 2019 and $280,341 (Division’s share $47,658) as of June 30, 2018.

Investments

Investments are carried at fair value as determined by quoted market prices at the reporting date.

Self-Insurance

KUB has established self-insurance programs covering portions of workers' compensation, employee health, environmental liability, general liability, property and casualty liability, and automobile liability claims. A liability is accrued for claims as they are incurred. When applicable, claims in excess of the self-insured risk are covered by KUB's insurance carrier. Additionally, KUB provides certain lifetime health benefits to eligible retired employees under a self-insurance plan administered by a third party.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on historical experience and various other assumptions that KUB believes are reasonable under the circumstances. However, future events are subject to change and the best estimates and judgments routinely require adjustment. Estimates are used for, but not limited to, inventory valuation, allowance for uncollectible accounts, depreciable lives of plant assets, unbilled revenue volumes, pension trust valuations, OPEB trust valuations, insurance liability reserves, and potential losses from contingencies and litigation. Actual results could differ from those estimates.

Restricted and Designated Assets

Certain assets are restricted by bond resolutions for the construction of utility plant and debt repayment. Certain additional assets are designated by management for contingency purposes and economic development.

Cash Equivalents

For purposes of the Statements of Cash Flows, KUB considers all unrestricted and undesignated highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. Deferred inflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Deferred outflows of resources also include employer pension contributions made subsequent to the measurement date of the net pension liability and before the end of the employer's reporting period in accordance with Statement No. 71. Deferred inflows and deferred outflows also include the net difference between projected and actual earnings on pension plan investments and OPEB plan investments, differences between expected and actual experience, and changes in assumptions in accordance with Statements No. 68, 73, and 75.

Debt Premium/Discount

KUB records unamortized premium and discount on debt as a separate line item in the Long-Term Debt section of the Financial Statements. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Debt Issuance Costs

In accordance with regulatory accounting, KUB records debt issuance costs as an Other Asset. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Deferred Gain/Loss on Refunding of Debt

KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. In accordance with FERC presentation, amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Compensated Absences

KUB accrues a liability for earned but unpaid paid-time off (PTO) days.

Subsequent Events

KUB has evaluated events and transactions through October 30, 2019, the date these financial statements were issued, for items that should potentially be recognized or disclosed.

Purchased Gas Adjustment

In November 1990, the Board implemented a deferred Purchased Gas (Cost) Adjustment (PGA) mechanism, which allows KUB to flow changes in purchased gas costs through to its customers. These changes in gas costs are reflected as adjustments to the base gas rates established by the Board. The rate-setting authority vested in the Board by the City Charter meets the "self-regulated" provisions of GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.

The PGA is intended to ensure that KUB recovers the total cost of natural gas purchased, transported and/or reserved for delivery to its sales and transportation customers on an equitable basis. The PGA is also intended to ensure that no excess or deficient cost recovery from KUB's customers occurs.

Under the PGA mechanism, KUB tracks the actual over/(under) recovered amount in the Over/(Under) Recovered Purchased Gas Cost accounts. These accounts are rolled into the PGA rate adjustment on June 30 of each year thereby ensuring that any over/(under) recovered amounts are passed on to KUB's gas system customers. The amount of over/(under) recovered cost was ($1,339,422) at June 30, 2019 and $1,466,723 at June 30, 2018.

Recently Issued Accounting Pronouncements

In January 2017, the GASB issued GASB Statement No. 84 (Statement No. 84), *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 is effective for fiscal years beginning after December 15, 2018.

In June 2017, the GASB issued GASB Statement No. 87 (Statement No. 87), *Leases*. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset. Statement No. 87 is effective for fiscal years beginning after December 15, 2019.

In June 2018, the GASB issued GASB Statement No. 89 (Statement No. 89), *Accounting for Interest Cost Incurred Before the End of a Construction Period.* The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period, and to simplify accounting for interest cost incurred before the end of a construction period. Statement No. 89 is effective for fiscal years beginning after December 15, 2019.

In August 2018, the GASB issued GASB Statement No. 90 (Statement No. 90), *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61.* The objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. Statement No. 90 is effective for fiscal years beginning after December 15, 2018.

In May 2019, the GASB issued GASB Statement No. 91 (Statement No. 91), *Conduit Debt Obligations.* The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. Statement No. 91 is effective for fiscal years beginning after December 15, 2020.

KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

3. Deposits and Investments

KUB follows the provisions of Statement No. 40 of the Governmental Accounting Standards Board, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3*. This Statement establishes and modifies disclosure requirements for state and local governments related to deposit and investment risks. KUB classifies its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*.

KUB's investment policy provides the framework for the administration and investment of cash deposits. The investment policy follows Tennessee State law and defines the parameters under which KUB funds should be invested. State law authorizes KUB to invest in obligations of the United States Treasury, its agencies and instrumentalities; certificates of deposit; repurchase agreements; money market funds; and the State Treasurer's Investment Pool.

Interest Rate Risk. KUB's primary investment objectives are to place investments in a manner to ensure the preservation of capital, remain sufficiently liquid to meet all operating requirements, and maximize yield of return. KUB minimizes its exposure to interest rate risk by adhering to Tennessee State law requirements for the investment of public funds. This includes limiting investments to those types described above and limiting maturity horizons. The maximum maturity is four years from the date of investment. KUB also limits its exposure by holding investments to maturity unless cash flow requirements dictate otherwise.

Credit Risk. KUB's investment policy, as required by state law, is to apply the prudent-person rule: Investments are made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable income to be derived, as well as the probable safety of their capital.

Custodial Credit Risk. KUB's investment policy limits exposure to custodial credit risk by restricting investments to a standard set forth by state law. All deposits in excess of federal depository insurance limits are collateralized with government securities held in KUB's name by a third-party custodian bank(s) acting as KUB's agent(s), or through the State of Tennessee's collateral pool. Financial institutions that participate in the collateral pool are subject to special assessment; therefore, the deposits are considered insured. A portion of KUB's investments are generally held in the State of Tennessee Local Government Investment Pool (LGIP). The LGIP is a part of the State Pooled Investment Fund and is sponsored by the State of Tennessee Treasury Department. Tennessee Code Annotated ¶9-4-701 *et seq*. authorizes local governments to invest in the LGIP. None of KUB's investments are exposed to custodial credit risk.

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Classification of deposits and investments per Statement of Net Position:

	2019	2018
Current assets		
Cash and cash equivalents	$ 31,187,947	$ 31,436,054
Short-term contingency fund investments	14,806,601	4,602,663
Other assets		
Long-term contingency fund investments	4,388,736	12,380,543
Restricted assets		
Gas bond fund	3,634,403	3,496,022
Other funds	4,152	3,646
	$ 54,021,839	$ 51,918,928

The above amounts do not include accrued interest of $90,221 in fiscal year 2019 and $68,150 in fiscal year 2018. Interest income is recorded on an accrual basis.

Investments and maturities of KUB's deposits and investments as held by financial institutions as of June 30, 2019:

	Deposit and Investment Maturities (in Years)		
	Fair Value	Less Than 1	1-5
Supersweep NOW and Other Deposits	$ 32,506,416	$ 32,506,416	$ -
State Treasurer's Investment Pool	2,183,227	2,183,227	-
Agency Bonds	19,195,337	14,806,601	4,388,736
Certificates of Deposits	1,451,076	1,451,076	-
	$ 55,336,056	$ 50,947,320	$ 4,388,736

KUB categorizes its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*. The hierarchy is based on the valuation inputs used to measure the fair value of an asset with a maturity at purchase greater than one year. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

KUB has the following recurring fair value measurements as of June 30, 2019:

- U.S. Agency bonds of $4,388,736, which have a maturity at purchase of greater than one year, are valued using quoted market prices (Level 1 inputs)

KUB measures investments with a maturity at purchase of one year or less at amortized cost, which is considered a fair value equivalent due to their nature. Investments in the State Treasurer's Investment Pool are measured at net asset value (NAV) per share.

4. Accounts Receivable

Accounts receivable consists of the following:

	2019	2018
Wholesale and retail customers		
Billed services	$ 4,178,373	$ 4,834,427
Unbilled services	1,490,875	1,463,602
Other	304,557	394,539
Allowance for uncollectible accounts	(35,670)	(34,801)
	$ 5,938,135	$ 6,657,767

5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2019	2018
Trade accounts	$ 3,369,918	$ 4,378,905
Salaries and wages	541,591	456,117
Self-insurance liabilities	324,957	309,857
Other current liabilities	468,494	523,205
	$ 4,704,960	$ 5,668,084

6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2018	Additions	Payments	Defeased	Balance June 30, 2019	Amounts Due Within One Year
P-2010 - 3.3 - 6.2%	$ 10,890,000	$ -	$ 595,000	$ -	$ 10,295,000	$ 620,000
Q-2012 - 2.0 - 4.0%	18,455,000	-	2,190,000	-	16,265,000	2,260,000
R-2012 - 2.0 - 4.0%	8,575,000	-	425,000	-	8,150,000	450,000
S-2013 - 2.0 - 4.0%	10,265,000	-	615,000	-	9,650,000	645,000
T-2013 - 2.0 - 4.6%	23,400,000	-	500,000	-	22,900,000	500,000
U-2015 - 2.0 - 5.0%	10,965,000	-	660,000	-	10,305,000	680,000
V-2016 - 2.125 - 5.0%	11,550,000	-	250,000	-	11,300,000	250,000
W-2017 - 5.0%	7,390,000	-	670,000	-	6,720,000	705,000
X-2017 - 2.0 - 5.0%	11,800,000	-	235,000	-	11,565,000	245,000
Y-2018 - 3.0 - 5.0%	-	8,000,000	210,000	-	7,790,000	155,000
Total bonds	$ 113,290,000	$ 8,000,000	$ 6,350,000	$ -	$ 114,940,000	$ 6,510,000
Unamortized Premium	4,510,823	70,169	387,296	-	4,193,696	-
Total long term debt	$ 117,800,823	$ 8,070,169	$ 6,737,296	$ -	$ 119,133,696	$ 6,510,000

	Balance June 30, 2017	**Additions**	**Payments**	**Defeased**	**Balance June 30, 2018**	**Amounts Due Within One Year**
P-2010 - 3.3 - 6.2%	$ 11,460,000	$ -	$ 570,000	$ -	$ 10,890,000	$ 595,000
Q-2012 - 2.0 - 4.0%	20,580,000	-	2,125,000	-	18,455,000	2,190,000
R-2012 - 2.0 - 4.0%	9,000,000	-	425,000	-	8,575,000	425,000
S-2013 - 2.0 - 4.0%	10,860,000	-	595,000	-	10,265,000	615,000
T-2013 - 2.0 - 4.6%	23,900,000	-	500,000	-	23,400,000	500,000
U-2015 - 2.0 - 5.0%	11,580,000	-	615,000	-	10,965,000	660,000
V-2016 - 2.125 - 5.0%	11,775,000	-	225,000	-	11,550,000	250,000
W-2017 - 5.0%	8,065,000	-	675,000	-	7,390,000	670,000
X-2017 - 2.0 - 5.0%	-	12,000,000	200,000	-	11,800,000	235,000
Total bonds	$ 107,220,000	$ 12,000,000	$ 5,930,000	$ -	$ 113,290,000	$ 6,140,000
Unamortized Premium	4,671,708	222,730	383,615	-	4,510,823	-
Total long term debt	$ 111,891,708	$ 12,222,730	$ 6,313,615	$ -	$ 117,800,823	$ 6,140,000

Debt service over remaining term of the debt is as follows:

Fiscal Year	**Total Principal**	**Interest**	**Grand Total**
2020	$ 6,510,000	$ 4,392,910	$ 10,902,910
2021	6,780,000	4,109,060	10,889,060
2022	7,040,000	3,811,066	10,851,066
2023	7,340,000	3,512,567	10,852,567
2024	7,605,000	3,228,604	10,833,604
2025 - 2029	35,400,000	11,949,278	47,349,278
2030 - 2034	24,785,000	5,763,067	30,548,067
2035 - 2039	8,035,000	2,474,517	10,509,517
2040 - 2044	6,935,000	1,411,922	8,346,922
2045 - 2048	4,510,000	313,257	4,823,257
Total	$ 114,940,000	$ 40,966,248	$ 155,906,248

The Division has pledged sufficient revenue, after deduction of all current operating expenses (exclusive of tax equivalents), to meet bond principal and interest payments when due. The requirements for the bonds are being met through monthly deposits to the Gas Bond Fund, as required by the bond covenants. As of June 30, 2019, these bond covenant requirements had been satisfied.

During fiscal year 2011, KUB's Gas Division issued Series P 2010 bonds to fund gas system capital improvements. These bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change.

During fiscal year 2018, KUB's Gas Division issued Series X 2017 bonds to fund gas system capital improvements.

During fiscal year 2019, KUB's Gas Division issued Series Y 2018 bonds to fund gas system capital improvements.

Other liabilities consist of the following:

	Balance June 30, 2018	**Increase**	**Decrease**	**Balance June 30, 2019**
Accrued compensated absences	$ 1,577,505	$ 2,830,882	$ (2,677,327)	$ 1,731,060
Customer advances for construction	1,686,824	848,614	(725,598)	1,809,840
Other	22,019	143,433	(93,639)	71,813
	$ 3,286,348	$ 3,822,929	$ (3,496,564)	$ 3,612,713

	Balance June 30, 2017	**Increase**	**Decrease**	**Balance June 30, 2018**
Accrued compensated absences	$ 1,617,834	$ 2,861,613	$ (2,901,942)	$ 1,577,505
Customer advances for construction	1,379,150	754,602	(446,928)	1,686,824
Other	18,881	13,632	(10,494)	22,019
	$ 3,015,865	$ 3,629,847	$ (3,359,364)	$ 3,286,348

7. Lease Commitments

KUB has non-cancelable operating lease commitments for office equipment, property, and vehicles, summarized for the following fiscal years:

2020	$ 75,845
2021	21,539
2022	12,719
Total operating minimum lease payments	$ 110,103

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8. Capital Assets

Capital asset activity was as follows:

	Balance June 30, 2018	Increase	Decrease	Balance June 30, 2019
Production Plant	$ 14,640	$ -	$ -	$ 14,640
Distribution Plant				
Mains	269,916,632	7,029,840	(2,451,964)	274,494,508
Services and Meters/Regulators	93,642,488	10,285,447	(1,886,207)	102,041,728
Other Accounts	1,474,036	148,692	(6,000)	1,616,728
Total Distribution Plant	$ 365,033,156	$ 17,463,979	$ (4,344,171)	$ 378,152,964
Total General Plant	32,490,309	1,100,613	(361,584)	33,229,338
Total Plant Assets	$ 397,538,105	$ 18,564,592	$ (4,705,755)	$ 411,396,942
Less Accumulated Depreciation	(134,622,473)	(13,332,813)	4,806,361	(143,148,925)
Net Plant Assets	$ 262,915,632	$ 5,231,779	$ 100,606	$ 268,248,017
Work In Progress	15,179,815	27,287,408	(18,625,519)	23,841,704
Total Net Plant	$ 278,095,447	$ 32,519,187	$ (18,524,913)	$ 292,089,721

	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
Production Plant	$ 14,640	$ -	$ -	$ 14,640
Distribution Plant				
Mains	260,114,157	11,001,293	(1,198,818)	269,916,632
Services and Meters/Regulators	90,422,257	8,234,467	(5,014,236)	93,642,488
Other Accounts	1,428,647	46,045	(656)	1,474,036
Total Distribution Plant	$ 351,965,061	$ 19,281,805	$ (6,213,710)	$ 365,033,156
Total General Plant	30,863,498	2,166,145	(539,334)	32,490,309
Total Plant Assets	$ 382,843,199	$ 21,447,950	$ (6,753,044)	$ 397,538,105
Less Accumulated Depreciation	(128,466,807)	(13,119,621)	6,963,955	(134,622,473)
Net Plant Assets	$ 254,376,392	$ 8,328,329	$ 210,911	$ 262,915,632
Work In Progress	16,908,455	20,884,030	(22,612,670)	15,179,815
Total Net Plant	$ 271,284,847	$ 29,212,359	$ (22,401,759)	$ 278,095,447

9. Risk Management

KUB is exposed to various risks of loss related to active and retiree medical claims; injuries to workers; theft of, damage to, and destruction of assets; environmental damages; and natural disasters. Claims expenditures and liabilities are reported when it is probable that a loss has occurred, and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported.

These liabilities are included in accrued expenses in the Statement of Net Position. The liability is KUB's best estimate based on available information. At June 30, 2019 and June 30, 2018, the amount of these liabilities was $324,957 and $309,857, respectively, resulting from the following changes:

	2019	2018
Balance, beginning of year	$ 309,857	$ 321,604
Current year claims and changes in estimates	2,920,440	2,649,288
Claims payments	(2,905,340)	(2,661,035)
Balance, end of year	$ 324,957	$ 309,857

10. Pension Plan

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2017 to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). The Plan is designed to provide retirement, disability and death benefits to KUB employees. KUB administers the Plan through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2018	2017
Inactive plan members:		
Terminated vested participants	21	34
Retirees and beneficiaries	588	602
Active plan members	592	629
Total	1,201	1,265

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost of living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of 3 percent of the first $4,800 of annual earnings and 5 percent of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2018:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%

Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $3,156,661 and $3,756,283 for 2017 and 2016, respectively, were made during the Plan sponsor's fiscal years ending June 30, 2019 and 2018, respectively. Of these amounts, $536,632 and $638,568 are attributable to the Gas Division. The fiscal year 2019 contribution was determined as part of the January 1, 2017 valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant's benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability or death.

Net Pension Liability

The below summarizes the disclosures of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*("GASB 68"), which requires measurement of the net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement date, respectively. The Division's share of the net pension liability at June 30, 2019 is $1,130,459 and the net pension asset at June 30, 2018 is $3,362,323.

GASB 68 requires certain disclosures related to the net pension liability of the Plan as disclosed below:

	2018	2017
Total pension liability	$ 212,157,951	$ 207,598,733
Plan fiduciary net position	(205,508,195)	(227,377,105)
Plan's net pension liability (asset)	$ 6,649,756	$ (19,778,372)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.50%

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Changes in Net Pension Liability are as follows:

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at December 31, 2017	$ 207,598,733	$ 227,377,105	$ (19,778,372)
Changes for the year:			
Service cost	5,095,488	-	5,095,488
Interest	15,344,193	-	15,344,193
Differences between Expected and Actual Experience	(605,649)	-	(605,649)
Changes of Assumptions	-	-	-
Contributions - employer	-	3,456,475	(3,456,475)
Contributions - rollovers	-	2,078,184	(2,078,184)
Contributions - member	-	2,941	(2,941)
Net investment income	-	(11,685,780)	11,685,780
Benefit payments	(15,274,814)	(15,274,814)	-
Administrative expense	-	(445,916)	445,916
Net changes	4,559,218	(21,868,910)	26,428,128
Balances at December 31, 2018	$ 212,157,951	$ 205,508,195	$ 6,649,756

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2018, updated to December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 23 years remaining as of January 1, 2018 and 24 years remaining as of January 1, 2017, or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2018 and 2017, the unfunded liability was negative.
Discount rate	7.5%
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation	2.8 %

The actuarial assumptions used in the January 1, 2018 and 2017 valuations were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. Subsequent revisions to lump sum and post-disability assumptions were based upon updated experience through December 31, 2015 and to retirement and termination rates and expense assumptions based upon updated experience through December 31, 2016.

The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plan's target asset allocation as of December 31, 2018 and 2017 are summarized in the following table. The real rate of return reported for fixed income is for aggregate fixed income. The Plan has both aggregate and long duration fixed income.

	Long Term Expected Real Rate of Return	
Asset Class	**2018**	**2017**
Domestic equity	5.8%	5.0%
Non-U.S. equity	6.9%	6.6%
Real estate equity	6.0%	5.6%
Debt securities	1.7%	1.4%
Cash and deposits	0.7%	0.7%

Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability of the Plan as of December 31, 2018, calculated using the discount rate of 7.5 percent, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is one percent lower (6.5 percent) or one percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
Plan's net pension liability	$ 23,948,053	$ 6,649,756	$ (8,451,269)

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $4,128,608 (Division's share $701,863).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5.00 years. During the measurement year, there was an experience gain of $605,649 with $121,129 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $484,520 (Division's share $82,368). Unrecognized experience gains from prior periods were $2,966,120 of which $1,042,252 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,923,868 (Division's share $327,058).

During the measurement year, there were no benefit changes or assumption changes. Unrecognized assumption change decreases from prior periods were $2,045,837 of which $658,104 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,387,733 (Division's share $235,915).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $28,364,098. $5,672,818 of that loss was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $8,925,385 of which $1,848,879 was recognized as a decrease in pension expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2018 of $15,614,774 (Division's share $2,654,512). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,578,332 (Division's share $268,316) at June 30, 2019 for employer contributions made between December 31, 2018 and June 30, 2019.

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	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,408,388
Changes in assumptions	-	1,387,733
Net difference between projected and actual earnings on pension plan investments	15,614,774	-
Contributions subsequent to measurement date	1,578,332	-
Total	$ 17,193,106	$ 3,796,121
Division's share	$ 2,922,828	$ 645,341

$1,578,332 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 3,597,035
2021	898,518
2022	1,771,410
2023	5,551,690
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of ($15,659) (Division's share ($2,662)).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5.00 years. During the measurement year, there was an experience gain of $1,087,161 with $217,432 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $869,729 (Division's share $147,854). Unrecognized experience gains from prior periods were $2,921,210 of which $824,819 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $2,096,391 (Division's share $356,387).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of $357,633 with $71,526 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $286,107 (Division's share $48,638). Unrecognized assumption change gains from prior periods were $2,346,307 of which $586,577 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,759,730 (Division's share $299,154).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $17,456,614. $3,491,323 of that gain was recognized in the current year and an identical amount will be recognized in each of the next four years. Net unrecognized investment losses from prior periods were $6,682,351 of which $1,642,445 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment gains this year along with the net unrecognized investment losses from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2017 of ($8,925,384) (Division's share ($1,517,315)). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,878,146 (Division's share $319,285) at June 30, 2018 for employer contributions made between December 31, 2017 and June 30, 2018.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,966,120
Changes in assumptions	-	2,045,837
Net difference between projected and actual earnings on pension plan investments	-	8,925,385
Contributions subsequent to measurement date	1,878,146	-
Total	$ 1,878,146	$ 13,937,342
Division's share	$ 319,285	$ 2,369,348

11. Qualified Excess Benefit Arrangement

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are not subject to cost of living adjustments.

As of June 30, 2019, there are 568 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There is currently one member receiving benefits under the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits, therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis, funded by KUB. There are no assets accumulated in a trust that meets the GASB's criteria.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement dates, respectively. The Division's share of the total pension liability at June 30, 2019 is $39,420 and at June 30, 2018 is $47,658.

GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2018	**2017**
Total pension liability	$231,883	$280,341
Deferred outflows	(52,287)	(69,716)
Deferred inflows	47,260	-
Net impact on Statement of Net Position	$226,856	$210,625
Covered payroll	$42,150,040	$43,309,374
Total pension liability as a % of covered payroll	0.55%	0.65%

Changes in total pension liability of the QEBA are as follows:

	Increase (Decrease)	
	Total Pension Liability	
Balances at December 31, 2017	$	280,341
Changes for the year:		
Service cost		941
Interest		9,676
Changes of Benefits		-
Differences between Expected and Actual Experience		(36,125)
Changes of Assumptions		(22,950)
Benefit payments		-
Net changes		(48,458)
Balances at December 31, 2018	$	231,883

Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2019, for December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 22 years remaining as of January 1, 2019 and 24 years remaining as of January 1, 2017.
Salary increase	From 2.80% to 5.15%, based on years of service

Mortality	Sex distinct MP2018 fully generational as of January 1, 2019 and Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA as of January 1, 2017
Inflation	2.5% as of January 1, 2019 and 2.8% as of January 1, 2017

The actuarial assumptions used in the January 1, 2019 valuation were based on the results of an actuarial experience study for the period January 1, 2014 through December 31, 2018.

Discount rate
The QEBA is not funded. In accordance with paragraph 31 of GASB 73, the discount rate is based on the Bond Buyer 20-Bond GO index. This rate was 4.1% at December 31, 2018.

Sensitivity of the total pension liability to changes in the discount rate
The following presents the total pension liability of the QEBA as of December 31, 2018, calculated using the discount rate of 4.1 percent, as well as what the QEBA's total pension liability would be if it were calculated using a discount rate that is one percent lower (3.1 percent) or one percent higher (5.1 percent) than the current rate:

	1% Decrease (3.1%)	**Current Discount Rate (4.1%)**	**1% Increase (5.1%)**
QEBA's total pension liability	$ 254,623	$ 231,883	$ 212,364

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $29,543 for the QEBA (Division's share $5,022). This amount is not expected to be the same as KUB's contribution to the QEBA ($13,312), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$226,856 - $210,625 + $13,312].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5 years. During the measurement year, there was an experience gain of $36,125 with $7,225 recognized in the current year and each of the next four years, resulting in a deferred inflow of $28,900 (Division's share $4,913). There was a deferred outflow at the end of the measurement year of $8,210 from experience losses in prior years (Division's share $1,396).

During the measurement year, there were no benefit changes. There was a decrease in the total pension liability due to assumption changes of $22,950 with $4,590 recognized in the current year and each of the next four years, resulting in a deferred inflow of $18,360 (Division's share $3,121). There was a deferred outflow at the end of the measurement year of $44,077 from assumption changes in prior years (Division's share $7,493). In addition, KUB recorded a deferred outflow of resources of $7,242 at June 30, 2019 for contributions between December 31, 2018 and June 30, 2019 (Division's share $1,231).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 8,210	$ 28,900
Changes in assumptions	44,077	18,360
Contributions subsequent to measurement date	7,242	-
Total	$ 59,529	$ 47,260
Division's share	$ 10,120	$ 8,034

$7,242 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the total pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 5,614
2021	5,614
2022	5,614
2023	(11,815)
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of $29,527 for the QEBA (Division's share $5,020). This amount is not expected to be the same as KUB's contribution to the QEBA ($3,979), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$210,625 - $185,077 + $3,979].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5 years. During the measurement year, there was an experience loss of $13,684 with approximately $2,737 recognized in the current year and each of the next four years, resulting in a deferred outflow of $10,947 (Division's share $1,861).

During the measurement year, there were no benefit changes. There was an increase in the total pension liability due to assumption changes of $73,461 with approximately $14,692 recognized in the current year and each of the next four years, resulting in a deferred outflow of $58,769 (Division's share $9,991).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 10,947	$ -
Changes in assumptions	58,769	-
Total	$ 69,716	$ -
Division's share	$ 11,852	$ -

12. Defined Contribution Plan

The KUB Asset Accumulation 401(k) Plan (the "401(k) Plan") is a defined contribution 401(k) employee retirement savings plan covering eligible KUB employees established by the KUB Board of Commissioners in accordance with the Charter of the City of Knoxville, Tennessee. The 401 (k) Plan's assets are held in trust under an agreement between KUB and Fidelity Management Trust Company. Employees hired prior to January 1, 2011 may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. Employees hired on or after January 1, 2011 have an enhanced 401(k) due to the closure of the Defined Benefit Pension Plan. They may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. They also receive a nonelective KUB contribution of 3 percent to 6 percent, depending on years of service, whether they contribute or not.

KUB funded 401(k) matching contributions and nonelective contributions of $2,410,201 (Division's share $409,734) and $2,174,711 (Division's share $369,701), respectively, for the years ended June 30, 2019 and 2018.

13. Other Post-Employment Benefits (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post Employment Benefits Trust (the Trust) is a single-employer Other Post Employment Benefits Plan (OPEB Plan) established by the Knoxville Utilities Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Trust may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board

Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective July 1, 1999, KUB closed the OPEB Plan such that persons employed or re-employed by KUB on or after July 1, 1999, are not eligible to participate, but that eligible employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the "Rule of 80", the sum of age and at least 20 years of qualified service equal or exceed 80, accrue benefits under the OPEB Plan.

Participants in the OPEB Plan consisted of the following as of June 30:

	2019	**2018**
Retirees	554	562
Dependents of retirees	550	561
Eligible active employees	288	309
Total	1,392	1,432

Benefits

Other post-employment benefits may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Only medical and pharmacy are currently provided to eligible retirees.

Contributions and Plan Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB's current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust's Board shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to and in accordance with the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired plan members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $250 per month for pre-Medicare family health insurance. For individuals who retired after January 1998 the required monthly premium for pre-Medicare health insurance is $250 for single coverage and $500 for family coverage. There is currently no premium for Medicare eligible retirees or dependents. KUB is responsible for determining the level of retired plan member contributions on an annual basis, as part of its review of healthcare cost sharing

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2019:

Asset Class	**Target Allocation**
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

No contributions were made to the OPEB Trust for the fiscal years ending June 30, 2019 and 2018, based on the OPEB Plan's actuarial valuations as of January 1, 2017, and 2016.

Implementation of GASB 75

In fiscal year 2018, KUB adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), which requires measurement of the net OPEB liability as total OPEB liability, less the amount of the Trust's fiduciary net position. The amounts reported as of June 30, 2019 are based on the reporting date for the KUB Other Post-Employment Benefits Plan which is June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019 and the Total OPEB Liability as of the valuation date, January 1, 2018, updated to June 30, 2019. The Division's share of the total net OPEB liability at June 30, 2019 is $246,116 and the net OPEB asset at June 30, 2018 is $637,682.

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The components of the net OPEB liability of the Trust are as follows as of June 30:

	2019	**2018**
Total OPEB liability	$ 50,197,938	$ 45,604,431
Plan fiduciary net position	48,750,196	49,355,499
Net OPEB liability (asset)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%

Changes in Net OPEB Liability are as follows:

	Total OPEB Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (a) - (b)
Balances at June 30, 2018	$ 45,604,431	$ 49,355,499	$ (3,751,068)
Changes for the year:			
Service cost	270,515	-	270,515
Interest	3,624,737	-	3,624,737
Differences between Expected and Actual Experience	999,098	-	999,098
Changes of Assumptions	3,231,601	-	3,231,601
Contributions - employer	-	-	-
Contributions - member	-	-	-
Net investment income	-	2,981,928	(2,981,928)
Benefit payments	(3,532,444)	(3,532,444)	-
Administrative expense	-	(54,787)	54,787
Net changes	4,593,507	(605,303)	5,198,810
Balances at June 30, 2019	$ 50,197,938	$ 48,750,196	$ 1,447,742

Actuarial assumptions

The total OPEB liability was determined by actuarial valuations, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation dates:	January 1, 2018, updated to June 30, 2019; January 1, 2017, updated to June 30, 2018
Discount rate:	7.5%
Healthcare cost trend rates:	Pre-Medicare: 8.00% grading down to 4.50% over 20 years as of January 1, 2018; 7.83% grading down to 4.50% over 19 years as of January 1, 2017 Medicare: 7.00% grading down to 4.50% over 20 years as of January 1, 2018; 6.88% grading down to 4.50% over 19 years as of January 1, 2017 Administrative expenses: 3.0% per year

Salary increases:	From 2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013, with subsequent revisions to retirement and termination assumptions based upon a special experience study, which reflected experience through December 31, 2016.

The long-term expected rate of return on Trust investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Trust investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The long-term expected rate of return may be lower in periods of current strong performance due to future valuations that mean revert to the long-term average. Best estimates of arithmetic real rates of return for each major asset class included in the Trust’s target asset allocation (see the discussion of the Trust’s Investment Policy) are summarized in the chart below.

	Long Term Expected Real Rate of Return	
Asset Class	**2019**	**2018**
Domestic equity	5.5%	5.1%
International equity	6.4%	6.6%
Real estate equity	5.9%	5.8%
Debt securities	1.5%	1.6%
Cash and deposits	0.6%	0.8%

Discount rate

The discount rate used to measure the total OPEB liability was 7.5 percent. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected future benefit payments. Therefore, the long-term expected rate of return on Trust investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

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Sensitivity of the net OPEB liability to changes in the discount rate.
The following presents the net OPEB liability of the Trust as of June 30, 2019, calculated using the discount rate of 7.5 percent, as well as what the Trust's net OPEB liability would be if it were calculated using a discount rate that is 1 percent lower (6.5 percent) or 1 percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
Net OPEB liability (asset)	$ 5,912,340	$ 1,447,742	$ (2,396,293)

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.
The following presents the net OPEB liability of the Trust as of June 30, 2019, as well as what the Trust's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percent lower or 1 percent higher than the current rate:

	1% Decrease	Baseline Trends	1% Increase
Net OPEB liability (asset)	$ (3,158,239)	$ 1,447,742	$ 6,713,737

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2019, KUB recognized OPEB expense of $3,046,377 (Division's share $517,884).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $999,098 with $499,549 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $499,549 (Division's share $84,924). Unrecognized experience losses from prior periods were $662,384 of which the entire amount is recognized as an increase in OPEB expense in the current year.

During the measurement year, there were no benefit changes. There was an increase in the Total OPEB Liability due to assumption changes of $3,231,601 with $1,615,801 of that recognized in the current year and in the next year, resulting in a deferred outflow of $1,615,800 (Division's share $274,686). Unrecognized assumption changes from prior periods were ($198,590) of which the entire amount is recognized as a decrease in OPEB expense in the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $587,645. $117,529 of that was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $123,047 of which $30,762 was recognized as a decrease in OPEB expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on OPEB plan investments as of June 30, 2019 of $377,831 (Division's share $64,231). The table below summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 499,549	$ -
Changes in assumptions	1,615,800	-
Net difference between projected and actual earnings on OPEB plan investments	377,831	-
Total	$ 2,493,180	$ -
Division's share	$ 423,841	$ -

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2020	$ 2,202,116
2021	86,767
2022	86,768
2023	117,529
Thereafter	-

For the year ended June 30, 2018, KUB recognized OPEB expense of $430,880 (Division's share $73,250).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $1,324,769 with $662,385 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $662,384 (Division's share $112,605).

During the measurement year, there were no benefit changes. There was a decrease in the Total OPEB Liability due to assumption changes of $397,180 with $198,590 of that recognized in the current year and in the next year, resulting in a deferred inflow of $198,590 (Division's share $33,760).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $153,809. $30,762 of that was recognized in the current year and $123,047 (Division's share $20,918) will become a deferred inflow of resources recognized over the next four years. The table on the next page summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 662,384	$ -
Changes in assumptions	-	198,590
Net difference between projected and actual earnings on OPEB plan investments	-	123,047
Total	$ 662,384	$ 321,637
Division's share	$ 112,605	$ 54,678

14. Related Party Transactions

The Division, in the normal course of operations, is involved in transactions with the City of Knoxville and with other divisions of KUB. Such transactions for the years ended June 30, 2019 and 2018 are summarized as follows:

	2019	**2018**
City of Knoxville		
Amounts billed by the Division for utilities and related services	$ 735,158	$ 812,116
Payments by the Division in lieu of property tax	3,875,482	3,674,591
Payments by the Division for services provided	568,679	126,924
Other divisions of KUB		
Amounts billed to other divisions for utilities and related services provided	235,615	290,724
Interdivisional rental expense	469,520	542,469
Amounts billed to the Division by other divisions for utilities services provided	306,382	299,701

With respect to these transactions, accounts receivable from the City of Knoxville included in the balance sheet at year end were as follows:

	2019	**2018**
Accounts receivable	$ 6,335	$ 13,253

15. Natural Gas Supply Contract Commitments

For fiscal year 2019, the Gas Division hedged 40 percent of its total gas purchases via gas supply contracts. As of June 30, 2019, the Gas Division had hedged the price on approximately 8 percent of its anticipated gas purchases for fiscal year 2020.

The Gas Division contracts separately for the purchase, transportation and storage of natural gas. Purchase commitments for the next five years are as follows:

Firm obligations related to purchased gas - demand

	2020	**2021**	**2022**	**2023**	**2024**
Transportation					
Tennessee Gas Pipeline	$ 3,267,384	$ 3,342,832	$ 3,380,556	$ 3,380,556	$ 3,380,556
East Tennessee Natural Gas	9,965,436	9,965,436	9,965,436	9,965,436	9,965,436
Storage					
Tennessee Gas Pipeline	1,748,196	1,748,196	1,748,196	1,748,196	1,748,196
East Tennessee Natural Gas	749,840	749,840	749,840	749,840	749,840
Saltville Natural Gas	2,000,160	2,000,160	2,000,160	1,655,130	620,040
Demand Total	$ 17,731,016	$ 17,806,464	$ 17,844,188	$ 17,499,158	$ 16,464,068

Firm obligations related to purchased gas - commodity

	2020	**2021**	**2022**	**2023**	**2024**
Baseload					
Shell Energy	$ 1,825,904	$ -	$ -	$ -	$ -
BP Energy Company	1,432,053		-	-	-
CNX Gas	1,759,096	-	-	-	-
Commodity Total	$ 5,017,053	$ -	$ -	$ -	$ -

The total commodity values presented here are based upon firm supply obligations with each individual natural gas supplier. The firm obligations value for Shell Energy and BP Energy Company are based upon firm supply obligations and locked prices with those suppliers. The firm obligations value for BP Energy Company and CNX Gas are based upon firm supply obligations and the applicable NYMEX strip prices on June 30, 2019.

16. Other Commitments and Contingencies

In the normal course of business, there are various lawsuits pending against KUB. Management has reviewed these lawsuits with counsel, who is vigorously defending KUB's position and is of the opinion that the ultimate disposition of these matters will not have a material adverse effect on KUB's financial position, results of operations or cash flows.

Knoxville Utilities Board Gas Division
Required Supplemental Information - Schedule of Changes in Net Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 5,095,488	$ 4,607,486	$ 4,226,985	$ 4,157,062	$ 4,092,808
Interest	15,344,193	15,015,282	14,966,559	14,812,784	14,698,657
Differences between expected and actual experience	(605,649)	(1,087,161)	(2,233,762)	(1,890,334)	-
Changes of assumptions	-	(357,633)	(2,932,883)	-	-
Benefit payments, including refunds of member contributions	(15,274,814)	(14,969,979)	(14,138,511)	(15,350,926)	(15,533,167)
Net change in total pension liability	4,559,218	3,207,995	(111,612)	1,728,586	3,258,298
Total pension liability - beginning	207,598,733	204,390,738	204,502,350	202,773,764	199,515,466
Total pension liability - ending (a)	$ 212,157,951	$ 207,598,733	$ 204,390,738	$ 204,502,350	$ 202,773,764
Plan fiduciary net position					
Contributions - employer	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contributions - participants	2,081,125	1,488,632	555,075	487,546	475,854
Net investment income	(11,748,396)	32,360,219	13,788,263	(95,430)	22,292,369
Other additions	62,616	82,239	45,848	30,879	29,733
Benefit payments, including refunds of member contributions	(15,174,814)	(14,895,979)	(14,044,511)	(15,274,926)	(15,405,167)
Administrative expense	(445,916)	(385,282)	(441,332)	(397,160)	(378,085)
Death benefits	(100,000)	(74,000)	(94,000)	(76,000)	(128,000)
Net change in plan fiduciary net position**	(21,868,910)	22,862,426	5,052,489	(9,333,204)	12,795,245
Plan fiduciary net position - beginning**	227,377,105	204,514,679	199,462,190	208,795,394	196,000,149
Plan fiduciary net position - ending (b)**	$ 205,508,195	$ 227,377,105	$ 204,514,679	$ 199,462,190	$ 208,795,394
Plan's net pension liability - ending (a) - (b)	$ 6,649,756	$ (19,778,372)	$ (123,941)	$ 5,040,160	$ (6,021,630)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.53%	100.06%	97.54%	102.97%
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Plan's net pension liability as a percentage of covered payroll	15.78	(45.67%)	(0.28%)	11.34%	(13.66%)

Notes to Schedule:

* Information not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented in 2014.

** Excludes amounts related to 401(k) matching contributions.

Knoxville Utilities Board Gas Division
Required Supplementary Information – Schedule of Employer Pension Contributions
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Actuarially determined contribution	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contribution in relation to the actuarially determined contribution	3,456,475	4,286,597	5,243,146	5,991,887	5,908,541
Contribution deficiency	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Contributions as a percentage of covered payroll	8.20%	9.90%	11.80%	13.48%	13.41%

Notes to Schedule:

Timing:	Actuarially determined contributions for a Plan year are based upon 50% of the amounts determined at the actuarial valuations for each of the two prior Plan years.
Valuation Dates:	January 1, 2017 and January 1, 2016

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Individual entry age
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 24 years remaining (25 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative.
Discount rate:	7.5%
Salary increases:	2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

* Schedule of Employer Contribution information is not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented 2014. Please refer to prior year's audited financial statements for prior methods and assumptions.

Knoxville Utilities Board Gas Division

Required Supplementary Information – Schedule of Changes in Net OPEB Liability and Related Ratios

June 30, 2019

(Unaudited)

	*Year ended June 30	
	2019	2018
Total OPEB liability		
Service cost	$ 270,515	$ 202,603
Interest	3,624,737	3,295,240
Differences between expected and actual experience	999,098	1,324,769
Changes of assumptions	3,231,601	(397,180)
Benefit payments	(3,532,444)	(3,298,739)
Net change in total OPEB liability	4,593,507	1,126,693
Total OPEB liability - beginning	45,604,431	44,477,738
Total OPEB liability - ending (a)	$ 50,197,938	$ 45,604,431
Plan fiduciary net position		
Contributions - employer	$ -	$ -
Net investment income	2,981,928	3,705,473
Benefit payments	(3,532,444)	(3,298,739)
Administrative expense	(54,787)	(51,668)
Net change in plan fiduciary net position	(605,303)	355,066
Plan fiduciary net position - beginning	49,355,499	49,000,433
Plan fiduciary net position - ending (b)	$ 48,750,196	$ 49,355,499
Net OPEB liability - ending (a) - (b)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%
Covered employee payroll	$ 24,346,735	$ 23,677,080
Net OPEB liability as a percentage of covered employee payroll	5.95%	(15.84%)

Notes to Schedule:

* Information not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.

Knoxville Utilities Board Gas Division

Required Supplementary Information – Schedule of Employer OPEB Contributions

June 30, 2019

(Unaudited)

	*Year ended June 30 2019	2018
Actuarially determined contribution	$ -	$ -
Contribution in relation to the annual required contribution	-	-
Contribution deficiency/(excess)	$ -	$ -
Covered employee payroll	$ 24,346,735	$ 23,677,080
Contributions as a percentage of covered employee payroll	0.00%	0.00%

Notes to Schedule:

Valuation Date:	January 1, 2017 and January 1, 2016
Timing:	Actuarially determined contribution rates are calculated based on the actuarial valuation completed 18 months before the beginning of the fiscal year.

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Entry age normal
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 19 years remaining as of January 1, 2017 (20 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative
Discount rate:	7.5%
Healthcare cost trend rate:	Pre-Medicare: 7.83% grading down to 4.5% over 19 years as of January 1, 2017; 8% to 4.5% over 20 years as of January 1, 2016 Medicare: 6.88% grading down to 4.5% over 19 years as of January 1, 2017; 7% to 4.5% over 20 years as of January 1, 2016 Administrative expenses: 3.0% per year
Salary increases:	From 2.8% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%
Investment rate of return:	7.5%
Retirement age:	2% at ages 50-57 and ages 50-55, at January 1, 2017 and January 1, 2016, respectively, grading up to 100% at age 70

* Schedule of Employer Contribution information is not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.
Please refer to prior year's audited financial statement for prior methods and assumptions.

Knoxville Utilities Board Gas Division
Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement
Schedule of Changes in Total Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31		
	2018	2017	2016
Total pension liability			
Service cost	$ 941	$ 584	$ -
Interest (includes interest on service cost)	9,676	7,535	-
Changes of benefit terms	-	-	185,077
Differences between expected and actual experience	(36,125)	13,684	-
Changes of assumptions	(22,950)	73,461	-
Benefit payments, including refunds of member contributions	-	-	-
Net change in total pension liability	(48,458)	95,264	185,077
Total pension liability - beginning	280,341	185,077	-
Total pension liability - ending	$ 231,883	$ 280,341	$ 185,077
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747
Total pension liability as a percentage of covered payroll	0.55%	0.65%	0.42%

Notes to Schedule:

* There are no assets accumulated in a trust that meet the criteria in paragraph 4 of GASB 73 to pay related benefits.

Knoxville Utilities Board Gas Division

Supplemental Information - Schedule of Insurance in Force

June 30, 2019

(Unaudited) Schedule 1

Insurance coverage is for KUB as a consolidated entity.

Crime

Covers losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $5,000,000; $250,000 retention.

Directors' and Officers' Liability Insurance

Covers KUB personnel appropriately authorized to make decisions on behalf of KUB (including but not limited to Commissioners, President and CEO, Senior Vice Presidents, Vice Presidents, and Directors) for wrongful acts. Limits of coverage - $20,000,000; $1,000,000 corporate deductible, $0 individual deductible.

Employment Practices Liability

Coverage for costs related to actual or alleged employment practices violations for amounts exceeding specified amount ($500,000). Limits of coverage - $10,000,000.

Fiduciary

Covers losses resulting from wrongful acts related to KUB's Pension, 401(k), OPEB Trust funds, and Medical Plan. Limits of coverage - $10,000,000; $150,000 deductible.

Pollution Legal Liability

New conditions coverage for losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - $20,000,000.

Property Insurance

This coverage provides protection of KUB's property for fire, extended coverage, vandalism and malicious mischief, and coverage on boilers and machinery. Also included are flood and earthquake damage and mechanical failure. Limits of coverage - $250,000,000 per occurrence (subject to certain sublimits); $2,500,000 deductible per occurrence.

Travel Accident

Covers losses related to employees' business travel. Limits of coverage - $1,000,000 aggregate.

Excess Insurance for General Liability

As a government entity, KUB's liability is limited under the Tennessee Governmental Tort Liability Act (TCA §29-20-403). KUB is self-insured for up to the first $700,000 of any accident and has insurance of $1,000,000 above this retention.

Excess Insurance for Workers' Compensation

Covers all losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - Statutory; stop loss coverage applies for aggregate losses over $5,000,000.

Employee Health Plan Stop Loss Coverage

KUB's employee health plan is self-funded. KUB has purchased stop loss insurance, which covers KUB's exposure to annual expenses in excess of $500,000 per individual participant.

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

Continued on Next Page

	P-2010			Q-2012		R-2012		S-2013		T-2013	
FY	Principal	Interest	Rebate*	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
19-20	620,000	581,075	203,376	2,260,000	615,148	450,000	240,781	645,000	302,900	500,000	956,825
20-21	645,000	553,175	193,611	2,350,000	524,748	475,000	222,781	695,000	277,100	500,000	936,825
21-22	670,000	521,731	182,606	2,445,000	430,748	475,000	203,781	715,000	249,300	500,000	916,825
22-23	695,000	488,231	170,881	2,540,000	332,948	500,000	184,781	730,000	227,850	500,000	901,825
23-24	725,000	453,481	158,718	2,645,000	231,348	525,000	169,781	745,000	205,950	500,000	886,200
24-25	750,000	413,606	144,762	760,000	125,548	550,000	159,281	790,000	183,600	1,550,000	869,950
25-26	785,000	372,358	130,325	780,000	102,748	575,000	142,781	800,000	159,900	1,600,000	813,763
26-27	815,000	328,200	114,870	800,000	79,348	575,000	130,560	840,000	135,900	1,650,000	749,763
27-28	845,000	279,300	97,755	830,000	54,348	600,000	117,625	875,000	110,700	1,700,000	683,763
28-29	880,000	228,600	80,010	855,000	27,788	625,000	99,625	905,000	84,450	1,750,000	615,763
29-30	915,000	175,800	61,530			650,000	84,000	940,000	57,300	1,950,000	543,575
30-31	950,000	120,900	42,315			675,000	64,500	970,000	29,100	2,000,000	460,700
31-32	1,000,000	62,000	21,700			725,000	44,250			2,000,000	373,200
32-33						750,000	22,500			2,000,000	283,200
33-34										2,100,000	193,200
34-35										2,100,000	96,600
35-36											
36-37											
37-38											
38-39											
39-40											
40-41											
41-42											
42-43											
43-44											
44-45											
45-46											
46-47											
47-48											
Total	$ 10,295,000	$ 4,578,457	$ 1,602,459	$ 16,265,000	$ 2,524,720	$ 8,150,000	$ 1,887,027	$ 9,650,000	$ 2,024,050	$ 22,900,000	$ 10,281,977

*Series P-2010 bonds were issued as federally taxable Build America Bonds. KUB will receive a 35 percent interest rebate payment from the United States Government for each interest payment. Effective October 1, 2018 these bonds became subject to a 6.2% reduction in rebate payment amounts due to the United States Government sequestration. The sequestration is in effect until intervening Congressional action, at which time the sequestration rate is subject to change.

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

Continued from Previous Page

	U-2015		V-2016		W-2017		X-2017		Y-2018		Totals		Grand Total (P + I)	Grand Total (Less Rebate)
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest		
19-20	680,000	357,387	250,000	347,594	705,000	336,000	245,000	379,919	155,000	275,281	6,510,000	4,392,910	10,902,910	10,699,534
20-21	710,000	323,387	250,000	335,094	735,000	300,750	260,000	367,669	160,000	267,531	6,780,000	4,109,060	10,889,060	10,695,449
21-22	740,000	287,887	275,000	322,594	780,000	264,000	270,000	354,669	170,000	259,531	7,040,000	3,811,066	10,851,066	10,668,460
22-23	795,000	250,888	300,000	308,844	815,000	225,000	285,000	341,169	180,000	251,031	7,340,000	3,512,567	10,852,567	10,681,686
23-24	805,000	233,000	325,000	293,844	850,000	184,250	300,000	326,919	185,000	243,831	7,605,000	3,228,604	10,833,604	10,674,886
24-25	845,000	208,850	325,000	280,844	900,000	141,750	315,000	311,919	195,000	236,431	6,980,000	2,931,779	9,911,779	9,767,017
25-26	880,000	183,500	350,000	267,844	940,000	96,750	330,000	296,168	200,000	228,631	7,240,000	2,664,443	9,904,443	9,774,118
26-27	895,000	154,900	350,000	253,844	995,000	49,750	340,000	286,268	210,000	220,631	7,470,000	2,389,164	9,859,164	9,744,294
27-28	985,000	123,573	375,000	243,344			345,000	279,469	215,000	214,331	6,770,000	2,106,453	8,876,453	8,778,698
28-29	975,000	89,100	375,000	232,094			355,000	272,138	220,000	207,881	6,940,000	1,857,439	8,797,439	8,717,429
29-30	955,000	59,850	375,000	220,844			360,000	263,706	230,000	201,281	6,375,000	1,606,356	7,981,356	7,919,826
30-31	1,040,000	31,200	400,000	212,875			375,000	252,906	235,000	194,381	6,645,000	1,366,562	8,011,562	7,969,247
31-32			400,000	203,875			385,000	241,656	240,000	187,331	4,750,000	1,112,312	5,862,312	5,840,612
32-33			425,000	194,375			395,000	230,106	250,000	180,131	3,820,000	910,312	4,730,312	4,730,312
33-34			425,000	183,750			410,000	218,256	260,000	172,319	3,195,000	767,525	3,962,525	3,962,525
34-35			425,000	173,125			420,000	205,956	265,000	163,869	3,210,000	639,550	3,849,550	3,849,550
35-36			450,000	162,500			435,000	193,356	275,000	155,256	1,160,000	511,112	1,671,112	1,671,112
36-37			450,000	150,686			445,000	180,306	285,000	146,319	1,180,000	477,311	1,657,311	1,657,311
37-38			475,000	138,312			460,000	166,956	295,000	136,700	1,230,000	441,968	1,671,968	1,671,968
38-39			475,000	125,250			475,000	152,582	305,000	126,744	1,255,000	404,576	1,659,576	1,659,576
39-40			500,000	112,188			490,000	137,738	315,000	116,069	1,305,000	365,995	1,670,995	1,670,995
40-41			525,000	98,438			505,000	122,425	325,000	105,044	1,355,000	325,907	1,680,907	1,680,907
41-42			525,000	84,000			520,000	106,644	335,000	93,669	1,380,000	284,313	1,664,313	1,664,313
42-43			550,000	68,250			535,000	90,394	350,000	81,944	1,435,000	240,588	1,675,588	1,675,588
43-44			550,000	51,750			550,000	73,675	360,000	69,694	1,460,000	195,119	1,655,119	1,655,119
44-45			575,000	35,250			570,000	56,488	375,000	57,094	1,520,000	148,832	1,668,832	1,668,832
45-46			600,000	18,000			585,000	38,675	385,000	43,500	1,570,000	100,175	1,670,175	1,670,175
46-47							605,000	19,662	400,000	29,544	1,005,000	49,206	1,054,206	1,054,206
47-48									415,000	15,044	415,000	15,044	430,044	430,044
Total	$ 10,305,000	$ 2,303,522	$ 11,300,000	$ 5,119,408	$ 6,720,000	$ 1,598,250	$ 11,565,000	$ 5,967,794	$ 7,790,000	$ 4,681,043	$ 114,940,000	$ 40,966,248	$ 155,906,248	$ 154,303,789

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Changes in Long-term Debt by Individual Issue
June 30, 2019
(Unaudited)
Schedule 3

Description of Indebtedness	Original Amount of Issue	Interest Rate	Date of Issue	Last Maturity Date	Outstanding Balance 7/1/2018	Issued During Period	Paid/Matured During Period	Refunded During Period	Outstanding Balance 6/30/2019
Business-Type Activities									
BONDS PAYABLE									
Payable through Gas Fund									
Revenue Bond, Series P-2010	12,000,000	3.3-6.2	12/08/10	03/01/32	$ 10,890,000	$	$ 595,000	$	$ 10,295,000
Revenue Bond Refunding, Series Q-2012	24,920,000	2.0-4.0	04/20/12	03/01/29	18,455,000		2,190,000		16,265,000
Revenue Bond, Series R-2012	10,000,000	2.0-4.0	12/18/12	03/01/33	8,575,000		425,000		8,150,000
Revenue Bond Refunding, Series S-2013	11,580,000	2.0-4.0	03/15/13	03/01/31	10,265,000		615,000		9,650,000
Revenue Bond, Series T-2013	25,000,000	2.0-4.6	10/01/13	03/01/35	23,400,000		500,000		22,900,000
Revenue Bond Refunding, Series U-2015	11,780,000	2.0-5.0	05/01/15	03/01/31	10,965,000		660,000		10,305,000
Revenue Bond, Series V-2016	12,000,000	2.125-5.0	08/05/16	03/01/46	11,550,000		250,000		11,300,000
Revenue Bond Refunding, Series W-2017	8,065,000	5.0	04/07/17	03/01/27	7,390,000		670,000		6,720,000
Revenue Bond, Series X-2017	12,000,000	2.0-5.0	09/15/17	03/01/47	11,800,000		235,000		11,565,000
Revenue Bond, Series Y-2018	8,000,000	3.0-5.0	09/14/18	03/01/48	-	8,000,000	210,000		7,790,000
					$ 113,290,000	$ 8,000,000	$ 6,350,000	$ -	$ 114,940,000

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)

Schedule 4

Rate Class	Base Charge	Number of Customers
Residential (G-2)	For the regular monthly billing period for the months of November to April, inclusive: Customer charge per month $10.15 First 30 therms per month at $1.0149 per therm Excess over 30 therms per month at $0.8027 per therm For the regular monthly billing periods for the months of May to October, inclusive: Customer charge per month $10.15 First 50 therms per month $0.8362 per therm Excess over 50 therms per month at $0.7176 per therm	93,804
Commercial (G-4)	Available to any commercial or industrial customer: Customer charge per month $27.00 First 250 therms per month at $0.9745 per therm Excess over 250 therms per month at $0.8570 per therm	9,336
Commercial (G-6)	Available to any commercial or industrial customer incurring a demand of twenty-seven therms or more during the current monthly billing period or during any of the eleven net preceding monthly billing periods. The net rate is the sum of the following demand and commodity charges: Customer charge: $170.00 per month Demand charge: $2.00 per therm of demand Commodity charge: First 30,000 therms per month at $0.6111 per therm Excess over 30,000 therms per month at $0.5151 per therm	231
Industrial (G-7)	Service under Rate Schedule G-7 shall be available to any customer who meets the following conditions: (a) Customer's annual Interruptible Gas use, on an actual or projected basis, shall not be less than 25,000 dekatherms; (b) Customer shall be permitted to purchase only one (1) dekatherm of Firm Gas under Rate Schedule G-7 for each two (2) dekatherms of Interruptible Gas which are purchased; (c) Customer must have standby equipment of sufficient capacity capable of providing the customer's normal gas service requirements for a period of five (5) working days without replenishment when Interruptible Gas is completely interrupted. Customer shall maintain such equipment ready for operation at any time and shall utilize a fuel other than gas furnished by KUB and shall be subject to periodic inspections by KUB to ensure compliance with this provision; and (d) KUB must determine that its existing distribution system facilities are adequate and available for the requested service.	11

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)

Schedule 4

Rate Class **Base Charge** **Number of Customers**

The net rate is the sum of the following demand and commodity charges:

Customer charge:	$500.00 per month
Demand charge:	$20.00 per month per dekatherm of demand
Commodity charge:	(a) Firm Gas - $5.151 per dekatherm (b) Interruptible Gas - (i) First 3,000 dekatherms per month at $4.939 per dekatherm; excess of 3,000 to 20,000 dekatherms per month at $4.328 per dekatherm; plus excess over 20,000 to 50,000 dekatherms per month at $3.514 per dekatherm; excess over 50,000 dekatherms per month at $3.239 per dekatherm (c) Supplemental Gas - The Commodity Charge for Supplemental Gas shall be the total of: (a) the cost per dekatherm to KUB for the applicable Day of acquiring Supplemental Gas on the open market, subject to the approval of the Customer to purchase Supplemental Gas at or above such price and (b) the costs incurred by KUB in transporting such Supplemental Gas via connecting pipelines to one or more of KUB's delivery points.
Transportation charge:	$2.318 per dekatherm for the first 3,000 dekatherms of gas Redelivered plus Unauthorized Gas; plus $1.707 per dekatherm for each dekatherm from 3,000 to and including 20,000 dekatherms of gas Redelivered plus Unauthorized Gas; plus $.893 per dekatherm for each dekatherm from 20,000 to and including 50,000 dekatherms of gas Redelivered plus Unauthorized Gas; plus $.618 per dekatherm for the excess over 50,000 dekatherms of gas Redelivered plus Unauthorized Gas.
Unauthorized Gas charge:	$15.00 per dekatherm of Unauthorized Gas as a penalty, plus the total of: (a) the cost per dekatherm of obtaining such gas on the open market as determined by the higher of (1) the applicable Gulf Coast Price Index for the applicable Day as published in *Gas Daily* or, if *Gas Daily* is no longer published, in a comparable reliable source for natural gas prices or (2) the applicable first of the month Gulf Coast Price Index as published in *Inside FERC*, or if *Inside FERC* is no longer published, in a comparable reliable source for natural gas prices and (b) the costs incurred by KUB in transporting such Unauthorized Gas via connecting pipelines to one or more of KUB's delivery points.

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)

Schedule 4

Rate Class	Base Charge	Number of Customers
G-11	Service under Rate Schedule G-11 shall be available to any customer who meets the following conditions: (a) Customer's annual gas usage (excluding Firm Gas), on an actual or projected basis, shall not be less than 25,000 dekatherms; (b) Customer shall be permitted to purchase only one (1) dekatherm of Firm Gas under Rate Schedule G-11 for each two (2) dekatherms of Transport Gas delivered by KUB to the Customer; (c) Customer must have standby equipment of sufficient capacity capable of providing the customer's normal gas service requirements for a period of five (5) working days without replenishment when Transport Gas is completely interrupted. Customer shall maintain such equipment ready for operation at any time and shall utilize a fuel other than gas furnished by KUB and shall be subject to periodic inspections by KUB to ensure compliance with this provision; (d) Customer's use under this rate shall not work a hardship on any other customers of KUB, nor adversely affect any other class of KUB's customers and further provided the Customer's use under this rate shall not adversely affect KUB's gas purchase plans and/or effective utilization of the daily demands under KUB's gas purchase contracts with its suppliers, as solely determined by KUB. (e) KUB must determine that its existing distribution system facilities are adequate and available for the requested service; and (f) Customer must execute a Transportation Service Agreement for interruptible transportation gas service. The net rate is the sum of the following charges: Customer charge: $650.00 Demand charge: $20.00 per dekatherm of demand Firm Gas charge: $5.151 per dekatherm Transportation charge: $2.318 per dekatherm for the first 3,000 dekatherms of non-Firm gas delivered to Customer; plus $1.707 per dekatherm for each dekatherm from 3,000 to and including 20,000 dekatherms of non-Firm gas delivered to Customer; plus $.893 per dekatherm for each dekatherm from 20,000 to and including 50,000 dekatherms of non-Firm gas delivered to Customer; plus $.618 per dekatherm for the excess over 50,000 dekatherms of non-Firm gas delivered to Customer. Standby Gas charge: The charge for Standby Gas shall be the total of: (a) the cost per dekatherm to KUB for the applicable Day of acquiring Standby Gas on the open market, subject to the approval of the Customer to purchase Standby Gas at or above such price and (b) the costs incurred by KUB in transporting such Standby Gas via connecting pipelines to one or more of KUB's delivery points.	14

Knoxville Utilities Board Gas Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)

Schedule 4

Rate Class	Base Charge		Number of Customers
	Unauthorized Gas charge:	$15.00 per dekatherm of Unauthorized Gas as a penalty, plus (a), the total cost per dekatherm of obtaining such gas on the open market, as defined below, plus (b), the costs incurred by KUB in transporting such Unauthorized Gas via connecting pipelines to one or more of KUB's delivery points. The cost per dekatherm of obtaining such gas on the open market, (a) above, is defined as an index price based on the High Common price for "Transco zone 5 delivered" or "Tennessee 500 Leg," whichever is higher for the applicable Day as published in *Gas Daily.* If *Gas Daily* is no longer published, or one of the aforementioned indeces is not published, or for any other reason as determined by KUB, KUB will select an industry recognized index at its sole discretion.	
	Other charges:	Imbalance Charges, and any pipeline scheduling, balancing, transportation, or other similar charges incurred by KUB in connection with the transportation of gas on behalf of the Customer, as applicable.	
G-12	Service under Rate Schedule G-12 shall be available to any customer when the following conditions are met: (a) Customer's annual gas usage, on an actual or projected basis, shall not be less than 12,500 dekatherms; (b) KUB must determine that its existing distribution system facilities are adequate and available for the requested service; (c) Customer must execute a Transportation Service Agreement for firm transportation gas service; and (d) Customer's use under this rate shall not work a hardship on any other customers of KUB, nor adversely affect any other class of KUB's customers and further provided the Customer's use under this rate shall not adversely affect KUB's gas purchase plans and/or effective utilization of the daily demands under KUB's gas purchase contracts with its suppliers, as solely determined by KUB.		3
	The net rate is the sum of the following charges:		
	Customer charge:	$650.00	
	Demand charge:	$6.50 per dekatherm of demand	
	Transportation charge:	$2.620 per dekatherm for the first 3,000 dekatherms of gas delivered to Customer; plus $1.848 per dekatherm for each dekatherm from 3,000 to and including 20,000 dekatherms of gas delivered to Customer; plus $.949 per dekatherm for each dekatherm from 20,000 to and including 50,000 dekatherms of gas delivered to Customer; plus $.826 per dekatherm for the excess over 50,000 dekatherms of gas delivered to Customer.	

Knoxville Utilities Board Gas Division

Supplemental Information - Schedule of Current Rates in Force

June 30, 2019

(Unaudited)

Schedule 4

Rate Class	Base Charge		Number of Customers
	Standby Gas charge:	The charge for Standby Gas shall be the total of: (a) the cost per dekatherm to KUB for the applicable Day of acquiring Standby Gas on the open market, subject to the approval of the Customer to purchase Standby Gas at or above such price and (b) the costs incurred by KUB in transporting such Standby Gas via connecting pipelines to one or more of KUB's delivery points.	
	Unauthorized Gas charge:	$15.00 per dekatherm of Unauthorized Gas as a penalty, plus (a), the total cost per dekatherm of obtaining such gas on the open market, as defined below, plus (b), the costs incurred by KUB in transporting such Unauthorized Gas via connecting pipelines to one or more of KUB's delivery points. The cost per dekatherm of obtaining such gas on the open market, (a) above, is defined as an index price based on the High Common price for "Transco zone 5 delivered" or "Tennessee 500 Leg," whichever is higher for the applicable Day as published in *Gas Daily.* If *Gas Daily* is no longer published, or one of the aforementioned indeces is not published, or for any other reason as determined by KUB, KUB will select an industry recognized index at its sole discretion.	
	Other charges:	Imbalance Charges, and any pipeline scheduling, balancing, transportation, or other similar charges incurred by KUB in connection with the transportation of gas on behalf of the Customer, as applicable.	

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Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Board of Commissioners
Gas Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Gas Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements, and have issued our report thereon dated October 30, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Division's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we do not express an opinion on the effectiveness of the Division's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Division's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Commissioners
Gas Division of the Knoxville Utilities Board
Knoxville, Tennessee

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Division's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*, but other matters that are required to be reported under the State of Tennessee Audit Manual are referenced as 2019-03 in the accompanying Schedule of Findings and Questioned Costs.

Purpose of Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Division's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board Gas Division
Schedule of Findings and Questioned Costs
June 30, 2019

Section I -- Summary of Auditor's Results

Financial Statements

Type of auditors' report issued:	Unmodified
Internal control over financial reporting:	
Material weakness(es) identified?	No
Significant deficiency(s) identified not considered to be material weaknesses?	None reported
Noncompliance material to financial statements:	No

Section II -- Financial Statement Findings

None reported.

Section III – Findings Required by the State of Tennessee Audit Manual

2019-03

Condition, Criteria, Cause, Questioned Costs and Effect

In May 2019, it was discovered that an employee in the KUB Gas Engineering Department in the Gas Division had falsified timesheets resulting in $2,740.50 of overpayments for false time reported.

Recommendations

None

Management's Response and Corrective Action Plan

The employee resigned in lieu of termination. The employee paid full restitution of $2,740.50 to KUB.

Section IV -- Summary Schedule of Prior Year Audit Findings

Not applicable as there were no prior year findings reported.

Knoxville Utilities Board

Water Division

Financial Statements and Supplemental Information
June 30, 2019 and 2018

KUB Board of Commissioners

Kathy Hamilton - Chair

Tyvi Small - Vice Chair

Dr. Jerry W. Askew

Celeste Herbert

Sara Hedstrom Pinnell

Adrienne Simpson-Brown

John Worden

Management

Gabriel Bolas II
President and
Chief Executive Officer

Mark Walker
Senior Vice President and
Chief Financial Officer

Susan Edwards
Senior Vice President and
Chief Administrative Officer

Derwin Hagood
Senior Vice President and
Chief Operating Officer

Eddie Black
Senior Vice President and
Chief Technology Officer

John Williams
Vice President of
Construction

Mike Bolin
Vice President of Utility
Advancement

Julie Childers
Vice President and
Century II Administrator

John Gresham
Vice President of
Operations

Knoxville Utilities Board Water Division
Index
June 30, 2019 and 2018

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Independent Auditor's Report

Board of Commissioners
Water Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited the accompanying financial statements of the Water Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements as listed in the index.

Management's Responsibility for the Financial Statements

The Division's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Division's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Water Division of the Knoxville Utilities Board as of June 30, 2019 and 2018, and the changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Board of Commissioners
Water Division of the Knoxville Utilities Board
Knoxville, Tennessee

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 25 and the required supplementary information on pages 61 through 65 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Division's basic financial statements. The supplemental information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplemental information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Water Division and do not purport to, and do not, present fairly the financial position of the Knoxville Utilities Board, as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2019, on our consideration of the Division's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control over financial reporting and compliance.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions. The Water Division (Division) provides services to certain customers in Knox County and in two surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the National Association of Regulatory Utility Commissioners (NARUC) and the Governmental Accounting Standards Board (GASB), as applicable. The financial statements present only the Water Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Division's discussion and analysis is designed to (a) assist the reader in focusing on significant financial issues, (b) provide an overview of the Division's financial activity, (c) identify major changes in the Division's financial position, and (d) identify any financial concerns.

The Division's Management Discussion and Analysis (MD&A) focuses on the fiscal year ending June 30, 2019 activities, resulting changes and current known facts, and should be read in conjunction with the Division's financial statements.

Water Division Highlights

System Highlights

KUB serves 80,449 water system customers over a 188-square mile service area. KUB maintains 1,409 miles of service mains, 28 storage facilities, 24 booster pump stations, and one treatment plant, which provided 12.6 billion gallons of water to KUB's water customers in fiscal year 2019. The average daily flow for fiscal year 2019 was 34.5 million gallons.

KUB's utility system was impacted by record rainfall in fiscal year 2019, including record-setting rainfall and widespread flooding in February 2019. KUB expects to receive reimbursements in fiscal year 2020 from the Federal Emergency Management Agency (FEMA) to partially offset the cost of the 2019 storm and flood event.

The water system has added 1,469 customers over the past three years representing annual growth of less than one percent. In fiscal year 2019, 526 customers were added.

The Division generated $3.1 million of additional revenue during the fiscal year as a result of the July 2018 water rate increase, which was adopted by the KUB Board to help fund the Division's Century II infrastructure program.

The typical residential water customer's average monthly bill was $26.45 as of June 30, 2019 (based on monthly use of 500 cubic feet or 3,740 gallons). The monthly bill increased $1.50 compared to the prior fiscal year, the result of the July 2018 water rate increase.

Water sales volumes have been impacted by more efficient appliances and the conservation efforts of customers. Based on historical trends, water sales volumes are anticipated to have an annual decline of one percent per year for both residential and non-residential customers.

Century II Infrastructure Program

Century II is KUB's proactive long-range program to improve and maintain the electric, natural gas, water and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In fiscal year 2015, KUB concluded the smart grid pilot project, of which a portion of the project was funded by a United States Department of Energy Smart Grid Investment Grant (SGIG). This grant was received by KUB in 2009 as part of the American Reinvestment and Recovery Act (ARRA). Based upon the success of that pilot, KUB formed a plan to move forward with a Century II Grid Modernization initiative, which includes advanced metering for all KUB customers, a telecommunication system linking critical KUB infrastructure, and an increased investment in automation technology to help operate KUB's energy and water distribution systems. Over the course of ten years, KUB plans to spend $124.4 million in this effort, of which the Water Division's share is $25.1 million. The deployment is funded in large part by debt issues and system revenues. As of June 30, 2019, KUB completed the third year of the four-year advanced meter deployment. KUB has replaced approximately 83 percent of its water meters, spending $17.7 million on the advanced meter deployment. The advanced meter deployment is on track and on budget.

In May 2017, a new Century II funding resolution was adopted by the KUB Board to express the continued commitment to funding Century II programs for the next ten years. The funding will be achieved through a combination of rate increases and debt issues supplemented by cost savings and new revenue from net customer additions.

In June 2017, the Board approved the next phase of water rate increases to support the Century II program. The first two of three rate increase went into effect July 2017 and July 2018 generating $3.1 million of additional annual Water Division revenue each. The remaining rate increase is effective in July 2019 and is expected to provide an additional $3.3 million in annual revenue to help fund the Water Division.

In fiscal year 2017, KUB completed the transition to a new disinfection system at the Mark B. Whitaker (MBW) Water Treatment plant.

KUB remains on track with its Century II water system infrastructure program. In fiscal year 2019, KUB replaced 5.6 miles of galvanized water main and 4.1 miles of cast iron main.

KUB is currently in the process of implementing a Water Plant Redundancy initiative to ensure that high quality, reliable water service will be provided to customers over the long term. KUB maintains a single water treatment plant for its system. In lieu of building a second treatment facility to ensure capacity will be available to meet the needs of current and future water customers, KUB will invest approximately $149 million in various redundant facilities at the site of its existing Mark B. Whitaker Water Treatment Plant over a 14-year period that began in fiscal year 2017.

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Financial Highlights

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's net position increased $10.2 million in fiscal year 2019, which was $2 million higher than the prior fiscal year. Comparatively, net position increased $8.2 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by $0.6 million during fiscal year 2018. The change resulted in a total increase of $8.8 million in the Division's net position.

Operating revenue increased $3.7 million or 6.8 percent, the result of additional revenue from the water rate increase effective July 2018.

Operating expenses increased $2.4 million or 6.1 percent. Operating and maintenance expenses (O&M) increased $2.2 million compared to the prior year. Depreciation expense was $0.1 million lower than the prior year. Taxes and tax equivalents were $0.3 million higher than the prior year.

Interest income was up $0.3 million from the prior fiscal year. Interest expense was $0.5 million higher than the prior year, due to interest expense on new revenue bonds sold during the fiscal year.

Capital contributions were $0.5 million higher than the prior fiscal year, the result of increased assets contributed by developers.

Total plant assets (net) increased $22.4 million or 7.1 percent due to treatment plant improvements, water main replacements and the replacement and relocation of water system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects.

During fiscal year 2019, KUB sold $20 million in water system revenue bonds for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.46 percent.

Long-term debt represented 50.6 percent of the Division's capital structure as of June 30, 2019, as compared to 50.2 percent last year. Capital structure equals long-term debt (which includes the current and long-term portion of revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 2.31. Maximum debt service coverage was 2.24.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's net position increased $8.2 million in fiscal year 2018, which was $2.2 million higher than the prior fiscal year. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by $0.6 million during fiscal year 2018. The change resulted in a total increase of $8.8 million in the Division's net position.

Operating revenue increased $3.6 million or 7.1 percent, the result of additional revenue from the water rate increase effective July 2017.

Operating expenses increased $1.3 million or 3.3 percent. Operating and maintenance expenses (O&M) increased $0.7 million compared to the prior year. Depreciation expense increased $0.6 million or 6 percent. Taxes and tax equivalents were consistent with the prior year.

Interest income was up $0.3 million from the prior fiscal year. Interest expense was $0.3 million higher than the prior year, due to interest expense on new revenue bonds sold during the fiscal year.

Capital contributions were $0.1 million lower than the prior fiscal year, the result of fewer assets contributed by developers.

Total plant assets (net) increased $19.6 million or 6.6 percent due to water main replacement, treatment plant improvements, and the replacement and relocation of water system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects.

During fiscal year 2018, KUB sold $20 million in water system revenue bonds for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.05 percent.

Long-term debt represented 50.2 percent of the Division's capital structure as of June 30, 2018, as compared to 49.3 percent last year. Capital structure equals long-term debt (which includes the current and long-term portion of revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 2.44. Maximum debt service coverage was 2.30.

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Knoxville Utilities Board Water Division - Financial Statements

The Division's financial performance is reported under three basic financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows.

Statement of Net Position

The Division reports its assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position in the Statement of Net Position. Assets are classified as current, restricted, water plant in service, or other assets.

Liabilities are classified as current, other, or long-term debt. Net position is classified as net investment in capital assets, restricted, or unrestricted. Net position tells the user what the Division has done with its accumulated earnings, not just the balance.

Net investment in capital assets reflects the book value of all capital assets less the outstanding balances of debt used to acquire, construct, or improve those assets.

Restricted net position are assets that have been limited to specific uses by the Division's bond covenants or through resolutions passed by the KUB Board.

Unrestricted net position is a residual classification; the amount remaining after reporting net position as either invested in capital or restricted is reported there.

Statement of Revenues, Expenses and Changes in Net Position

The Division reports its revenues and expenses (both operating and non-operating) on the Statement of Revenues, Expenses and Changes in Net Position. In addition, any capital contributions or assets donated by developers are reported on this statement.

Total revenue less total expense equals the change in net position for the reporting period. Net position at the beginning of the period is increased or decreased, as applicable, by the change in net position for the reporting period.

The change in net position for the reporting period is added to the net position segment of the Statement of Net Position.

Statement of Cash Flows

The Division reports cash flows from operating activities, capital and related financing activities, and investing activities on the Statement of Cash Flows. This statement tells the user the Division's sources and uses of cash during the reporting period.

The statement indicates the Division's beginning cash balance and ending cash balance and how it was either increased or decreased during the reporting period.

The statement also reconciles cash flow to operating income as it appears on the Statement of Revenues, Expenses and Changes in Net Position.

Condensed Financial Statements

Statement of Net Position

The following table reflects the condensed Statement of Net Position for the Water Division compared to the prior two fiscal years.

Statements of Net Position
As of June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Current, restricted and other assets	$ 49,922	$ 50,268	$ 43,229
Capital assets, net	340,619	318,177	298,533
Deferred outflows of resources	5,538	3,538	4,607
Total assets and deferred outflows of resources	396,079	371,983	346,369
Current and other liabilities	15,346	13,195	11,928
Long-term debt outstanding	192,222	179,094	164,722
Deferred inflows of resources	500	1,854	685
Total liabilities and deferred inflows of resources	208,068	194,143	177,335
Net position			
Net investment in capital assets	147,252	138,682	134,011
Restricted	2,151	1,941	1,732
Unrestricted	38,608	37,217	33,291
Total net position	$ 188,011	$ 177,840	$ 169,034

Normal Impacts on Statement of Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Net Position presentation.

- Change in net position (from Statement of Revenues, Expenses and Change in Net Position): impacts (increase/decrease) current and other assets and/or capital assets and unrestricted net position.

- Issuing debt for capital: increases deferred outflows of resources and long-term debt.

- Spending debt proceeds on new capital: reduces current assets and increases capital assets.

- Spending of non-debt related current assets on new capital: (a) reduces current assets and increases capital assets and (b) reduces unrestricted net position and increases net investment in capital assets.

- Principal payment on debt: (a) reduces current and other assets and reduces long-term debt and (b) reduces unrestricted net position and increases net investment in capital assets.

- Reduction of capital assets through depreciation: reduces capital assets and net investment in capital assets.

Impacts and Analysis

Current, Restricted and Other Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Current, restricted and other assets decreased $0.3 million or 0.7 percent. This reflects a decrease in the actuarially determined net pension asset of $2.6 million, offset by a $1.1 million increase in the Division's general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments) and a $1.2 million increase in operating contingency reserves.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current, restricted and other assets increased $7 million or 16.3 percent. This reflects an increase in the actuarially determined net pension asset of $2.6 million, a $2.3 million increase in the Division's general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments) and a $1.9 million increase in operating contingency reserves.

Capital Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Capital assets, net of depreciation, increased $22.4 million or 7.1 percent. Capital expenditures included $11.3 million for treatment plant and system improvements, $4.7 million for water main replacement, $3.7 million for the replacement, relocation of water system assets to accommodate TDOT highway improvement projects and $2.9 million for deployment of advanced metering equipment. During the fiscal year, $3.8 million of water system assets were retired.

Fiscal Year 2018 Compared to Fiscal Year 2017

Capital assets, net of depreciation, increased $19.6 million or 6.6 percent. Capital expenditures included $12.4 million for treatment plant and system improvements, $4.1 million for the replacement and relocation of water system assets to accommodate TDOT highway improvement projects and $3.9 million for water main replacement. During the fiscal year, $2.6 million of water system assets were retired.

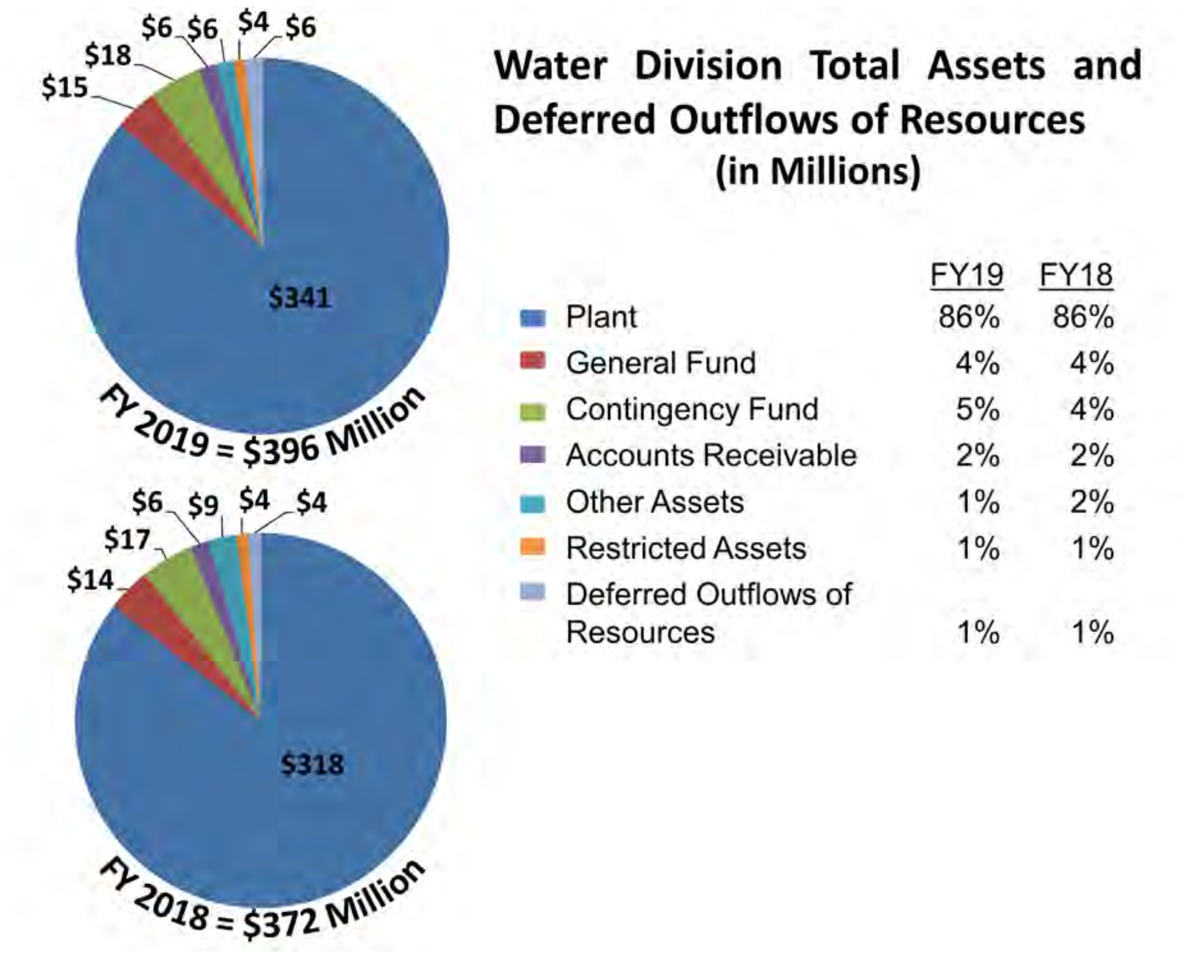
Deferred Outflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred outflows of resources increased $2 million compared to the prior fiscal year due to an increase in pension outflow.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred outflows of resources decreased $1.1 million compared to the prior fiscal year. This decrease was due to a decrease in pension outflow of $0.9 million and a decrease of unamortized bond refunding costs of $0.2 million.



Water Division Total Assets and Deferred Outflows of Resources (in Millions)

	FY19	FY18
Plant	86%	86%
General Fund	4%	4%
Contingency Fund	5%	4%
Accounts Receivable	2%	2%
Other Assets	1%	2%
Restricted Assets	1%	1%
Deferred Outflows of Resources	1%	1%

Current and Other Liabilities

Fiscal Year 2019 Compared to Fiscal Year 2018

Current and other liabilities increased $2.2 million compared to the prior fiscal year. This increase reflects a $0.9 million increase in net pension liability, a $0.6 million increase in the current portion of revenue bonds and a $0.2 million increase in net OPEB liability.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current and other liabilities increased $1.3 million compared to the prior fiscal year. This increase reflects a $0.5 million increase in accounts payable and a $0.5 million increase in the current portion of revenue bonds.

Long-Term Debt

Fiscal Year 2019 Compared to Fiscal Year 2018

Long-term debt increased $13.1 million or 7.3 percent. Water system revenue bonds of $20 million, sold in August 2018, were offset by the scheduled repayment of debt.

Fiscal Year 2018 Compared to Fiscal Year 2017

Long-term debt increased $14.4 million or 8.7 percent. Water system revenue bonds of $20 million, sold in August 2017, were offset by the scheduled repayment of debt.

Deferred Inflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred inflows decreased $1.4 million compared to the prior fiscal year due to differences in pension inflows.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred inflows increased $1.2 million compared to the prior fiscal year due to differences in pension inflows.

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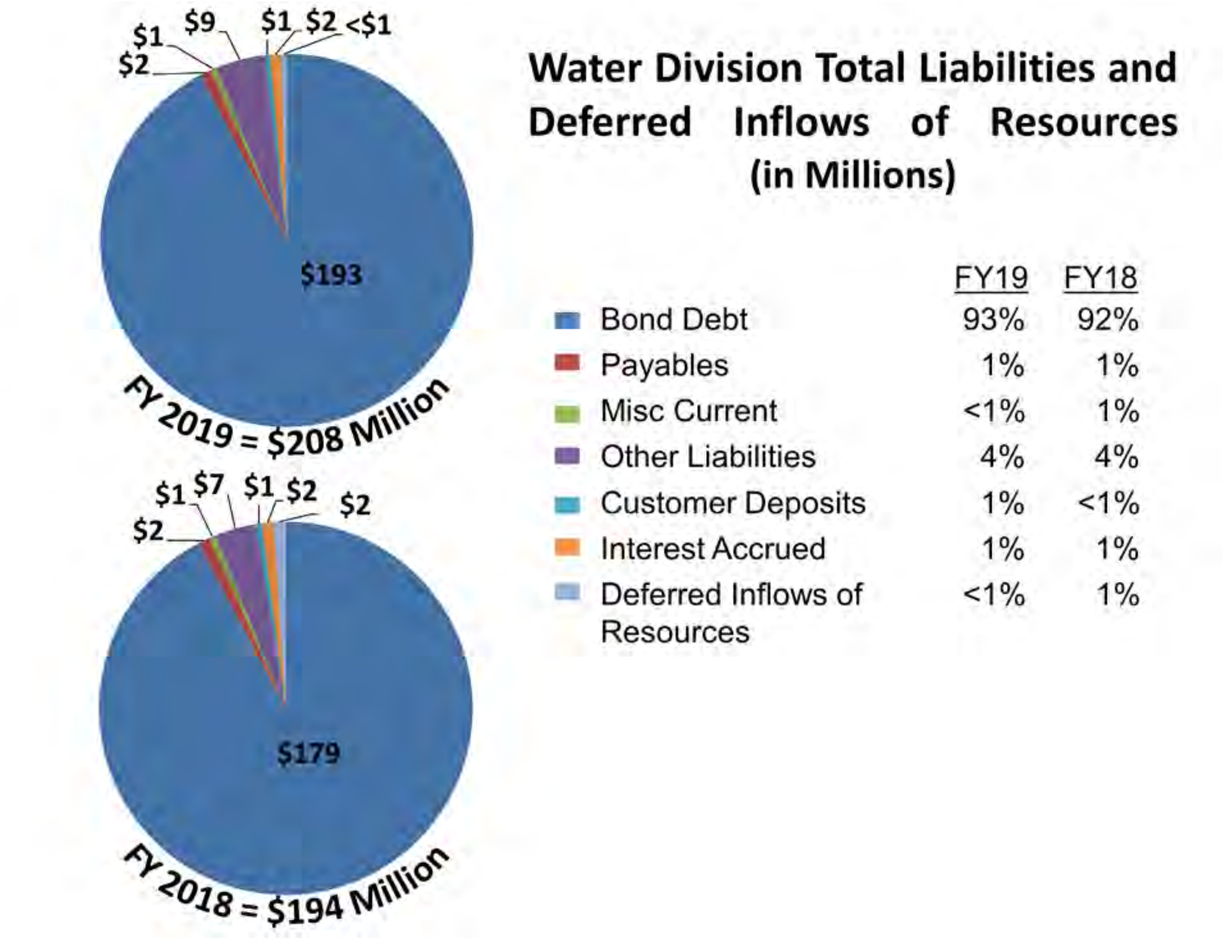

Water Division Total Liabilities and Deferred Inflows of Resources (in Millions)

	FY19	FY18
🟦 Bond Debt	93%	92%
🟥 Payables	1%	1%
🟩 Misc Current	<1%	1%
🟪 Other Liabilities	4%	4%
🟦 Customer Deposits	1%	<1%
🟧 Interest Accrued	1%	1%
▫ Deferred Inflows of Resources	<1%	1%

Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

Net position increased $10.2 million this fiscal year. Unrestricted net position increased $1.4 million, primarily due to a $2 million increase in deferred outflows of resources compared to the prior fiscal year. Net investment in capital assets increased $8.6 million due to an increase in current portion of revenue bonds and total long-term debt of $13.8 million offset by an increase to net plant in service of $22.4 million. Restricted assets increased $0.2 million due to additional funds restricted for debt service.

Fiscal Year 2018 Compared to Fiscal Year 2017

Net position increased $8.8 million this fiscal year. Unrestricted net position increased $3.9 million, primarily due to a $6.7 million increase in current and other assets compared to the prior fiscal year. Net investment in capital assets increased $4.7 million due to an increase in current portion of revenue bonds and total long-term debt of $14.9 million offset by an increase to net plant in service of $19.6 million. Restricted assets increased $0.2 million due to additional funds restricted for debt service.

Statement of Revenues, Expenses and Changes in Net Position

The following table reflects the condensed Statement of Revenues, Expenses and Changes in Net Position for the Water Division compared to the prior two fiscal years.

Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30

(in thousands of dollars)	2019	2018	2017
Operating revenues	$ 58,073	$ 54,365	$ 50,770
Operating expenses			
Treatment	3,984	4,352	4,375
Distribution	15,418	14,940	13,986
Customer service	1,887	1,612	1,719
Administrative and general	6,633	4,776	4,956
Depreciation	10,315	10,380	9,793
Taxes and tax equivalents	4,418	4,151	4,087
Total operating expenses	42,655	40,211	38,916
Operating income	15,418	14,154	11,854
Interest income	886	588	308
Interest expense	(6,840)	(6,340)	(6,022)
Other income/(expense)	143	(233)	(223)
Change in net position before capital contributions	9,607	8,169	5,917
Capital Contributions	564	49	124
Change in net position	$ 10,171	$ 8,218	$ 6,041

Normal Impacts on Statement of Revenues, Expenses and Changes in Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Revenues, Expenses and Change in Net Position presentation.

- Operating revenues are largely determined by the volumes of water sold during the fiscal year. Any change (increase/decrease) in retail water rates would also be a cause of change in operating revenue.

- Operating expenses (treatment, distribution, customer service, administrative and general) are normally impacted by changes in areas including, but not limited to, labor cost (staffing, wage rates), active employee and retiree medical costs, chemicals, and water system maintenance.

- Depreciation expense is impacted by plant additions and retirements during the fiscal year.

- Taxes and tax equivalents are impacted by plant additions/retirements and changes in property tax rates.

- Interest expense is impacted by the level of interest rates and investments.

- Interest expense on debt is impacted by the level of outstanding debt and the interest rates on the outstanding debt.

- Other income/(expenses) is impacted by miscellaneous non-operating revenues and expenses.

- Capital contributions are impacted by a donation of facilities/infrastructure to KUB by developers and governmental agencies. The contributions are recognized as revenue and recorded as plant in service based on the fair market value of the asset(s).

Impacts and Analysis

Change in Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's Change in Net Position increased $10.2 million in fiscal year 2019. Comparatively, net position increased by $8.2 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $0.6 million. The change resulted in a total increase of $8.8 million in the Division's net position.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's Change in Net Position increased $8.2 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $0.6 million. The change resulted in a total increase of $8.8 million in the Division's net position. Comparatively, net position increased by $6 million in fiscal year 2017.

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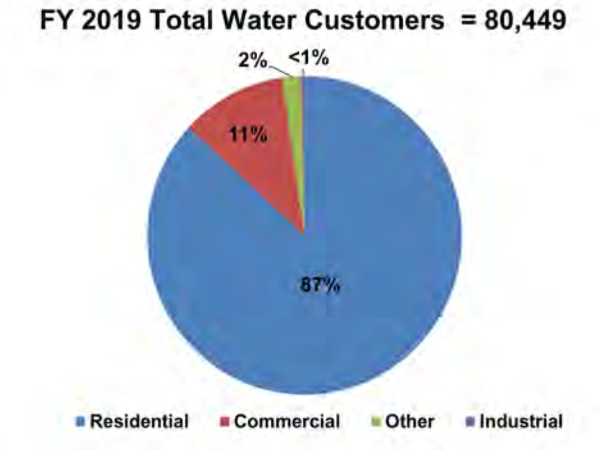
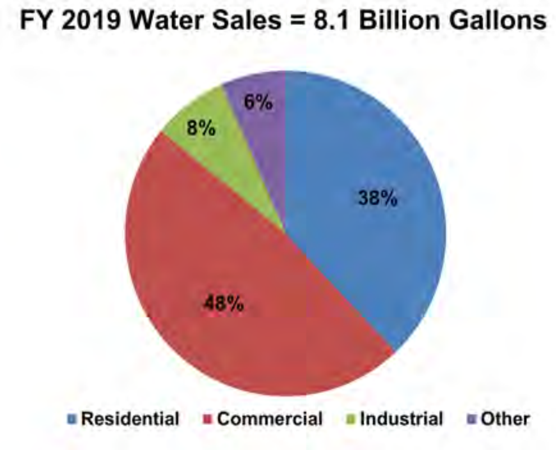
Margin from Sales

Fiscal Year 2019 Compared to Fiscal Year 2018

Operating revenues increased $3.7 million or 6.8 percent. This reflects additional revenue from the July 2018 water rate increase offset by a 1.1 percent decline in billed water sales volumes, as residential and industrial sales volumes were lower.


FY 2019 Total Water Customers = 80,449


FY 2019 Water Sales = 8.1 Billion Gallons

Residential customers represented 87 percent of water customers and accounted for 38 percent of water sales volumes for the year. Commercial and industrial customers accounted for the largest portion (56 percent) of total sales volumes during the year.

KUB's ten largest water customers accounted for 23 percent of KUB's billed water volumes. Those ten customers represent one industrial, seven commercial and two utility districts which are categorized as other. Within the top ten, eight governmental customers are represented.

KUB has added 1,469 water customers over the past three years, representing annual growth of less than one percent. Water system growth is up slightly due to increased new housing construction.

Residential water sales volumes decreased 1.6 percent compared to the prior fiscal year.

Commercial water sales volumes increased 0.8 percent compared to the prior year. Industrial sales volumes decreased 6.1 percent compared to the prior year, partially due to the decrease in production and eventual closure of a large industrial customer.

Other water sales volumes were 5.6 percent lower than the prior year.

Water consumption for the fiscal year was affected by higher than normal rainfall. February 2019 was the wettest February on record for the service area. Precipitation for the fiscal year was 52.6 percent higher than normal and 43.5 percent higher than the prior fiscal year.

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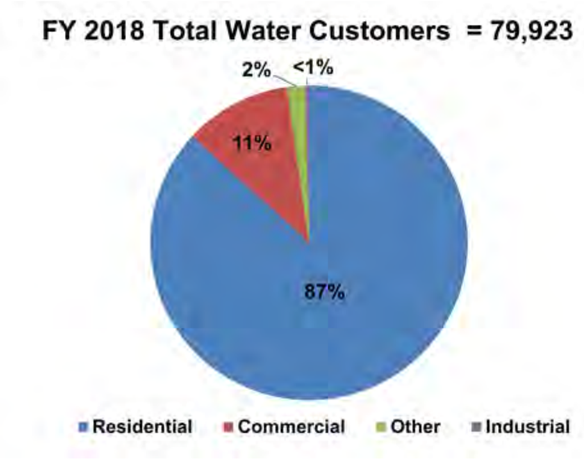
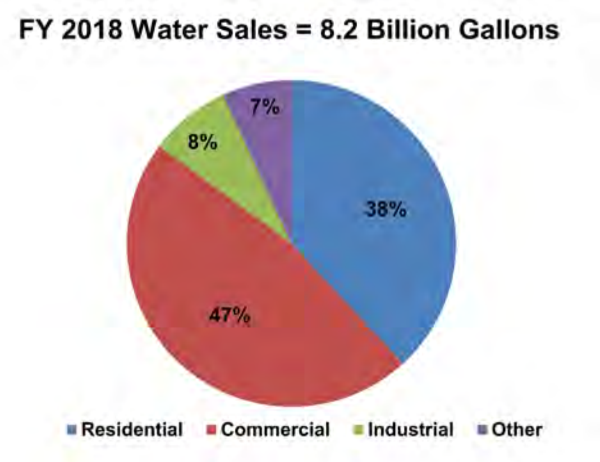
Fiscal Year 2018 Compared to Fiscal Year 2017

Operating revenues increased $3.6 million or 7.1 percent. This reflects additional revenue from the July 2017 water rate increase offset by a 2.1 percent decline in billed water sales volumes, as residential and industrial sales volumes were lower.





Residential customers represented 87 percent of water customers and accounted for 38 percent of water sales volumes for the year. Commercial and industrial customers accounted for the largest portion (55 percent) of total sales volumes during the year.

KUB's ten largest water customers accounted for 21.5 percent of KUB's billed water volumes. Those ten customers represent two industrial and eight commercial customers, including eight governmental customers.

KUB has added 1,370 water customers over the past three years, representing annual growth of less than one percent. Water system growth is up slightly due to increased new housing construction.

Residential water sales volumes decreased 4 percent compared to the prior fiscal year.

Commercial water sales volumes increased 0.2 percent compared to the prior year. Industrial sales volumes decreased 3.6 percent compared to the prior year.

Other water sales volumes were 4.8 percent lower than the prior year.

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Operating Expenses

Fiscal Year 2019 Compared to Fiscal Year 2018

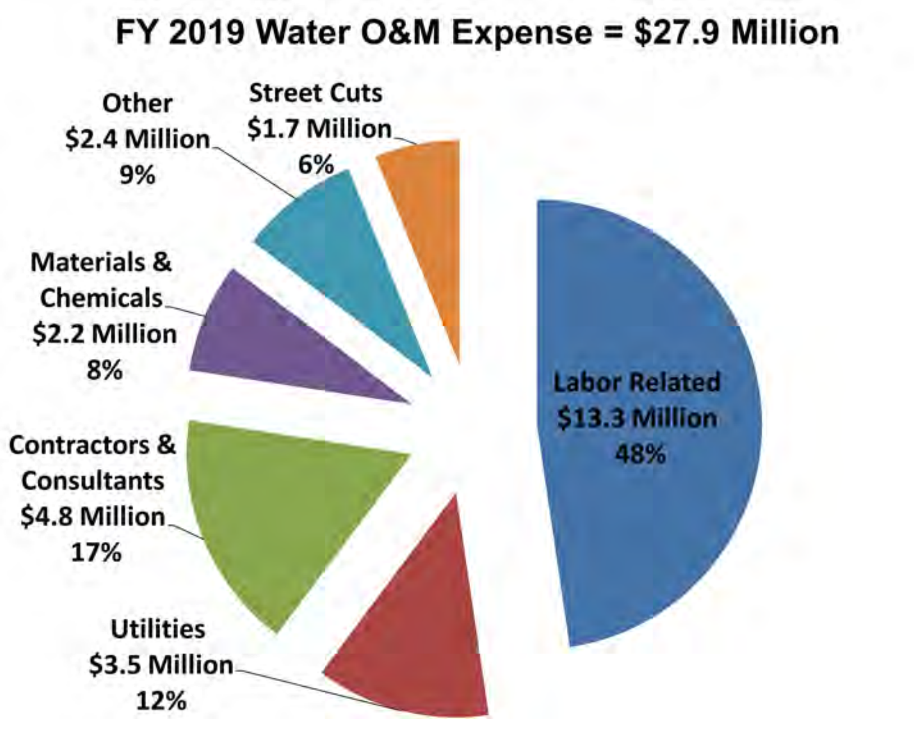
Operating expenses increased $2.4 million or 6.1 percent. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as treatment, distribution, customer service, and administrative and general.

- Treatment expenses were $0.4 million or 8.5 percent lower than the prior fiscal year due to a decrease in outside contractor costs and labor related expenses.

- Distribution expenses were $0.5 million or 3.2 percent higher than the prior fiscal year due to an increase in outside contractor costs.

- Customer service expenses were $0.3 million higher than the prior fiscal year.

- Administrative and general expenses were $1.9 million higher than the prior fiscal year, primarily due to labor related expenses including higher pension expenses, reflecting impact of investment losses on Pension Trust assets in 2018.



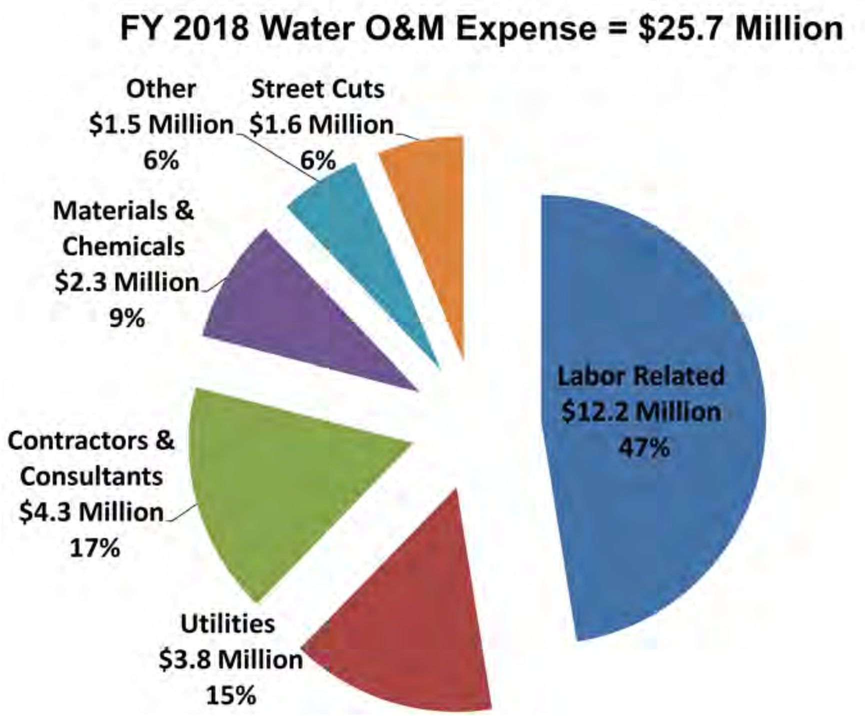
- Depreciation expense was down $0.1 million, primarily due the accelerated depreciation of existing meters that are to be replaced as part of KUB's system wide deployment of advanced metering equipment and the retirement of $3.8 million of assets during fiscal year 2019.

- Taxes and tax equivalents were $0.3 million higher than the prior fiscal year due to increased plant in service levels.

Fiscal Year 2018 Compared to Fiscal Year 2017

Operating expenses increased $1.3 million or 3.3 percent. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as treatment, distribution, customer service, and administrative and general.

- Treatment expenses were consistent with the prior fiscal year.
- Distribution expenses were $1 million or 6.8 percent higher than the prior fiscal year due to an increase in outside contractor costs and labor related expenses.
- Customer service expenses were $0.1 million lower than the prior fiscal year.
- Administrative and general expenses were $0.2 million lower than the prior fiscal year, primarily due to labor related expenses.



- Depreciation expense was up $0.6 million, primarily due to Century II initiatives to replace mains, and the accelerated depreciation of existing meters that are to be replaced as part of KUB's system wide deployment of advanced metering equipment. In addition, $2.6 million of assets were retired during fiscal year 2018.
- Taxes and tax equivalents were consistent with the prior fiscal year.

Other Income and Expense

Fiscal Year 2019 Compared to Fiscal Year 2018

Interest income increased $0.3 million from the prior fiscal year primarily due to higher short-term interest rates.

Interest expense increased $0.5 million, reflecting the impact of interest expense from new revenue bonds sold during the fiscal year.

Other income (net) was $0.4 million higher than the prior fiscal year, primarily due to mark-to-market adjustments on investments.

Capital contributions increased $0.5 million, the result of an increase in donated assets from developers compared to the previous fiscal year.

Fiscal Year 2018 Compared to Fiscal Year 2017

Interest income increased $0.3 million from the prior fiscal year primarily due to higher short-term interest rates.

Interest expense increased $0.3 million, reflecting the net impact of interest expense from new revenue bonds sold during the fiscal year and savings on refunding of outstanding bonds.

Other income (net) was consistent with the prior fiscal year.

Capital contributions by developers were $0.1 million lower than the prior fiscal year.

Capital Assets

Capital Assets
As of June 30
(Net of Depreciation)

(in thousands of dollars)	**2019**	**2018**	**2017**
Production Plant	$ 7	$ 57	$ 58
Pumping & Treatment Plant	53,079	52,730	47,968
Distribution Plant			
Distribution Mains	$ 165,540	$ 161,290	151,095
Transmission Mains	26,237	24,400	25,013
Services & Meters	36,813	31,151	24,588
Other Accounts	13,676	13,313	13,084
Total Distribution Plant	242,266	230,154	$ 213,780
Total General Plant	$ 9,265	$ 9,722	9,720
Total Water Plant	304,617	292,663	$ 271,526
Work In Progress	36,002	25,514	27,007
Total Net Plant	$ 340,619	$ 318,177	$ 298,533

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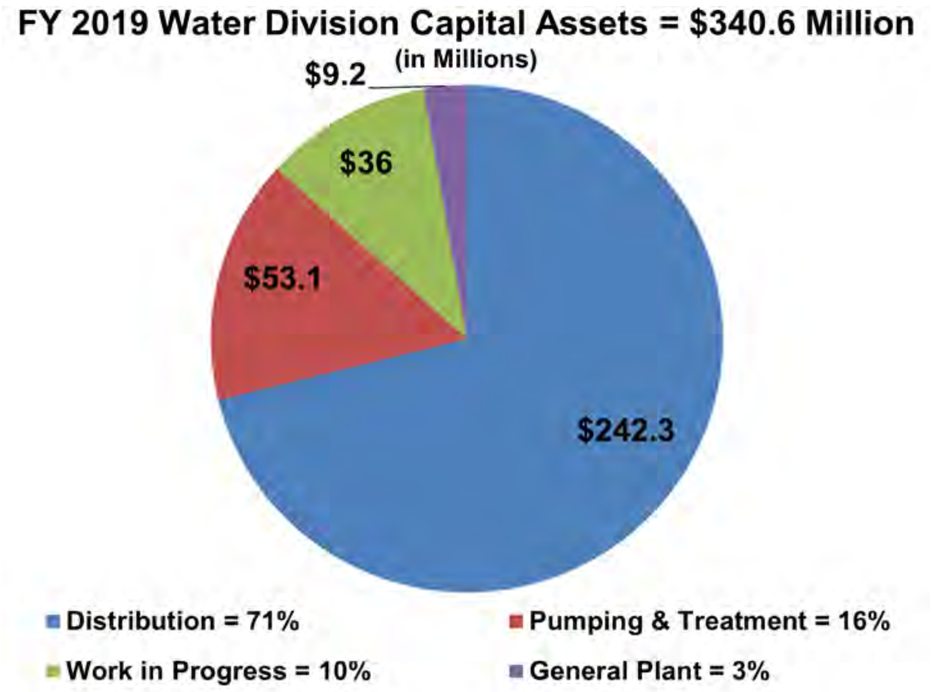
Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $340.6 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represented a net increase (including additions, retirements, and depreciation) of $22.4 million or 7.1 percent over the end of the last fiscal year.



Major capital asset expenditures during the year were as follows:

- $11.3 million for major plant and system improvements
- $4.7 million for galvanized and cast iron water main replacement
- $3.7 million for replacement and relocation of water system assets to accommodate TDOT highway improvement projects
- $2.9 million for deployment of advanced metering equipment

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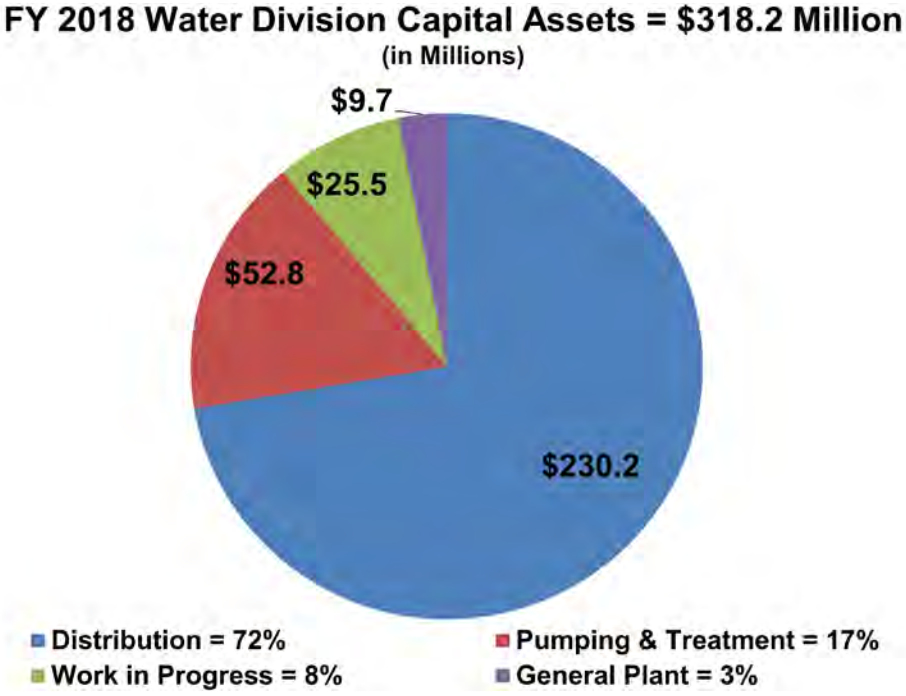
Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $318.2 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represented a net increase (including additions, retirements, and depreciation) of $19.6 million or 6.6 percent over the end of the last fiscal year.



Major capital asset expenditures during the year were as follows:

- $12.4 million for major plant and system improvements
- $4.1 million for replacement and relocation of water system assets to accommodate TDOT highway improvement projects
- $3.9 million for galvanized and cast iron water main replacement
- $1.9 million for deployment of advanced metering equipment

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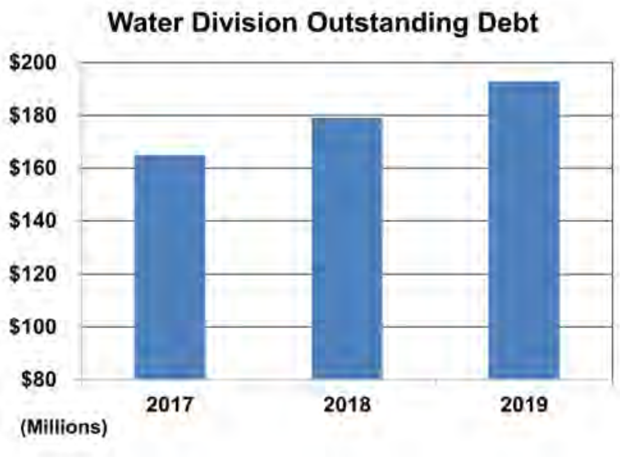
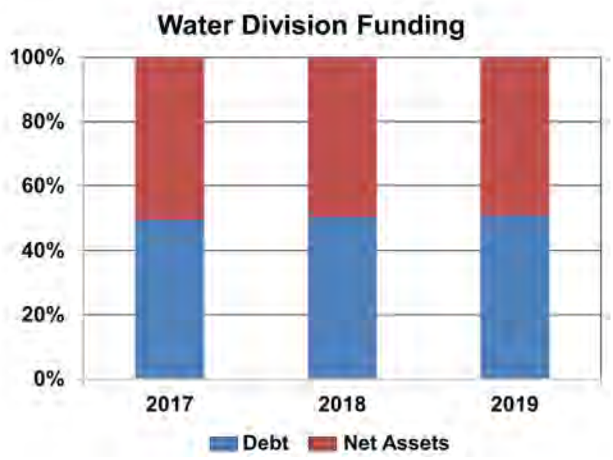
Debt Administration

As of June 30, 2019, the Water Division had $192.8 million in outstanding water system bonds. The bonds are secured solely by revenues of the Water Division. Debt as a percentage of the Division's capital structure was 50.6 percent in 2019, 50.2 percent in 2018, and 49.3 percent at the end of fiscal year 2017. KUB's Debt Management Policy limits the Division's debt ratio to 60 percent or less.

Outstanding Debt
As of June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Revenue bonds	$ 192,820	$ 179,165	$ 164,635
Total outstanding debt	$ 192,820	$ 179,165	$ 164,635





The Division will pay $77.2 million in principal payments over the next ten years, representing 40 percent of the outstanding bonds. KUB's Debt Management Policy requires a minimum of 30 percent of water debt principal be repaid over the next ten years.

Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $192.8 million in outstanding debt (including the current portion of revenue bonds), compared to $179.2 million last year, an increase of $13.6 million or 7.6 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division's weighted average cost of debt as of June 30, 2019 was 3.55 percent.

KUB sold $20 million in water system revenue bonds in August 2018 for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.46 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2019, the Division's revenue bonds were rated AAA by Standard & Poor's and Aa1 by Moody's Investors Service. The Standard and Poor's water rating represents the highest credit rating available from Standard and Poor's.

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $179.2 million in outstanding debt (including the current portion of revenue bonds), compared to $164.6 million last year, an increase of $14.6 million or 8.8 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division's weighted average cost of debt as of June 30, 2018 was 3.54 percent.

KUB sold $20 million in water system revenue bonds in August 2017 for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.05 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2018, the Division's revenue bonds were rated AAA by Standard & Poor's and Aa1 by Moody's Investors Service. The Standard and Poor's water rating represents the highest credit rating available from Standard and Poor's.

Impacts on Future Financial Position

KUB anticipates adding 500 additional water system customers during fiscal year 2020.

In June 2017, the KUB Board adopted three years of rate increases for all four utility Divisions to help fund the ongoing Century II infrastructure programs for each system. The remaining approved water rate increase is effective July 2019 and is expected to provide an additional $3.3 million in annual revenue, to assist with the funding of the Water Division.

KUB sold $20 million in water system revenue bonds in July 2019 for the purpose of funding water system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent.

The Pension Plan actuarial valuation for the Plan year ending December 31, 2018 resulted in an actuarially determined contribution of $2,585,824 for the fiscal year ending June 30, 2020, based on the Plan's current funding policy. The Water Division's portion of this contribution is $336,157. Subsequent to June 30, 2019, the actuarial valuation for the Plan year ending December 31, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $3,167,680 for the fiscal year ending June 30, 2021, based on the Plan's current funding policy. The Water Division's portion of this contribution is $411,798. For the Plan year ending December 31, 2019, the Plan's actuarial funded ratio was 104.68 percent.

The OPEB Plan actuarial valuation as of January 1, 2018 resulted in an actuarially determined contribution of $311,324 for the fiscal year ending June 30, 2020, based on the Plan's current funding policy. The Water Division's portion of this contribution is $40,472. Subsequent to June 30, 2019, the actuarial valuation as of January 1, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $757,226 for the fiscal year ending June 30, 2021, based on the Plan's current funding policy. The Water Division's portion of this contribution is $98,439. The Plan's actuarial funded ratio was 86.3 percent.

GASB Statement No. 84, *Fiduciary Activities*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 87, *Leases*, is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period,* is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 90, *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 91, *Conduit Debt Obligations*, is effective for fiscal years beginning after December 15, 2020. KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

No other facts, decisions, or conditions are currently known which would have a significant impact on the Division's financial position or results of operations during fiscal year 2019.

Financial Contact

The Division's financial statements are designed to present users (citizens, customers, investors, and creditors) with a general overview of the Division's financial position and results of operations for the fiscal years ending June 30, 2019 and 2018. If you have questions about the statements or need additional financial information, contact KUB's Chief Financial Officer at 445 South Gay Street, Knoxville, Tennessee 37902.

Knoxville Utilities Board Water Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Assets and Deferred Outflows of Resources		
Current assets:		
Cash and cash equivalents	$ 12,761,344	$ 14,150,014
Short-term investments	2,495,500	-
Short-term contingency fund investments	14,317,711	3,114,455
Other current assets	258,782	774,541
Accrued interest receivable	21,889	16,540
Accounts receivable, less allowance of uncollectible accounts of $57,429 in 2019 and $54,237 in 2018	6,482,723	6,009,621
Inventories	3,199,517	3,238,388
Prepaid expenses	44,002	42,823
Total current assets	39,581,468	27,346,382
Restricted assets:		
Water bond fund	4,415,948	4,050,177
Other funds	2,793	2,788
Total restricted assets	4,418,741	4,052,965
Water plant in service	431,645,921	412,200,259
Less accumulated depreciation	(127,028,444)	(119,537,309)
	304,617,477	292,662,950
Retirement in progress	796,715	68,102
Construction in progress	35,205,185	25,446,188
Net plant in service	340,619,377	318,177,240
Other assets:		
Net pension asset	-	2,571,188
Net OPEB asset	-	487,639
Long-term contingency fund investments	3,527,433	13,532,161
Other	2,394,210	2,277,538
Total other assets	5,921,643	18,868,526
Total assets	390,541,229	368,445,113
Deferred outflows of resources:		
Pension outflow	2,242,843	253,222
OPEB outflow	324,113	86,110
Unamortized bond refunding costs	2,970,897	3,198,305
Total deferred outflows of resources	5,537,853	3,537,637
Total assets and deferred outflows of resources	$ 396,079,082	$ 371,982,750

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Water Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Liabilities, Deferred Inflows, and Net Position		
Current liabilities:		
Current portion of revenue bonds	$ 6,445,000	$ 5,815,000
Sales tax collections payable	343,619	312,321
Accounts payable	1,905,884	1,794,385
Accrued expenses	725,454	688,042
Customer deposits plus accrued interest	965,413	904,591
Accrued interest on revenue bonds	2,267,515	2,111,744
Total current liabilities	12,652,885	11,626,083
Other liabilities:		
Accrued compensated absences	1,559,945	1,515,405
Net pension liability	894,613	36,444
Net OPEB liability	188,207	-
Other	49,885	16,852
Total other liabilities	2,692,650	1,568,701
Long-term debt:		
Water revenue bonds	186,375,000	173,350,000
Unamortized premiums/discounts	5,847,325	5,743,978
Total long-term debt	192,222,325	179,093,978
Total liabilities	207,567,860	192,288,762
Deferred inflows of resources:		
Pension inflow	499,640	1,811,854
OPEB inflow	-	41,813
Total deferred inflows of resources	499,640	1,853,667
Total liabilities and deferred inflows of resources	208,067,500	194,142,429
Net position		
Net investment in capital assets	147,251,605	138,681,584
Restricted for:		
Debt service	2,148,433	1,938,433
Other	2,793	2,788
Unrestricted	38,608,751	37,217,516
Total net position	188,011,582	177,840,321
Total liabilities, deferred inflows, and net position	$ 396,079,082	$ 371,982,750

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Water Division
Statements of Revenues, Expenses and Changes in Net Position
Years Ended June 30, 2019 and 2018

	2019	2018
Operating revenues	$ 58,073,479	$ 54,365,215
Operating expenses		
Treatment	3,984,176	4,352,170
Distribution	15,417,999	14,940,310
Customer service	1,886,682	1,611,813
Administrative and general	6,632,782	4,775,460
Provision for depreciation	10,315,031	10,379,928
Taxes and tax equivalents	4,418,426	4,151,052
Total operating expenses	42,655,096	40,210,733
Operating income	15,418,383	14,154,482
Non-operating revenues (expenses)		
Contributions in aid of construction	860,459	926,471
Interest and dividend income	885,864	588,153
Interest expense	(6,839,885)	(6,340,380)
Amortization of debt costs	13,027	3,866
Write-down of plant for costs recovered through contributions	(860,459)	(926,471)
Other	129,874	(237,123)
Total non-operating revenues (expenses)	(5,811,120)	(5,985,484)
Change in net position before capital contributions	9,607,263	8,168,998
Capital contributions	563,998	49,129
Change in net position	10,171,261	8,218,127
Net position, beginning of year, as previously reported	177,840,321	169,034,244
Change in method of accounting for OPEB	-	587,950
Net position, beginning of year, as restated	177,840,321	169,622,194
Net position, end of year	$ 188,011,582	$ 177,840,321

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Water Division
Statements of Cash Flows
Years Ended June 30, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Cash receipts from customers	$ 56,627,540	$ 52,942,978
Cash receipts from other operations	2,058,005	2,333,576
Cash payments to suppliers of goods or services	(17,315,860)	(15,133,988)
Cash payments to employees for services	(10,713,769)	(11,089,536)
Payment in lieu of taxes	(3,511,656)	(3,304,740)
Net cash provided by operating activities	27,144,260	25,748,290
Cash flows from capital and related financing activities:		
Net proceeds from bond issuance	20,225,143	20,447,411
Principal paid on revenue bonds and notes payable	(6,340,000)	(5,470,000)
Interest paid on revenue bonds and notes payable	(6,684,114)	(6,160,115)
Acquisition and construction of water plant	(33,579,785)	(31,388,107)
Changes in water bond fund, restricted	(365,771)	(390,417)
Proceeds received on disposal of plant	34,774	52,177
Cash received from developers and individuals for capital purposes	860,459	926,471
Net cash used in capital and related financing activities	(25,849,294)	(21,982,580)
Cash flows from investing activities:		
Purchase of investment securities	(9,965,693)	(7,624,674)
Maturities of investment securities	6,485,830	8,131,396
Interest received	864,635	555,026
Other property and investments	(68,408)	(72,675)
Net cash (used in) provided by investing activities	(2,683,636)	989,073
Net (decrease) increase in cash and cash equivalents	(1,388,670)	4,754,783
Cash and cash equivalents, beginning of year	14,150,014	9,395,231
Cash and cash equivalents, end of year	$ 12,761,344	$ 14,150,014
Reconciliation of operating income to net cash provided by operating activities		
Operating income	$ 15,418,383	$ 14,154,482
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	10,806,412	10,813,949
Changes in operating assets and liabilities:		
Accounts receivable	(473,102)	(571,076)
Inventories	38,871	546,832
Prepaid expenses	(1,179)	3,683
Other assets	512,719	702,131
Sales tax collections payable	31,298	23,434
Accounts payable and accrued expenses	717,003	41,945
Customer deposits plus accrued interest	60,822	36,800
Other liabilities	33,033	(3,890)
Net cash provided by operating activities	$ 27,144,260	$ 25,748,290
Noncash capital activities:		
Acquisition of plant assets through developer contributions	$ 563,998	$ 49,129

The accompanying notes are an integral part of these financial statements.

1. Description of Business

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions including setting rates. The Water Division (Division) provides services to certain customers in Knox County and in two surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the National Association of Regulatory Utility Commissioners (NARUC) and the Governmental Accounting Standards Board (GASB), as applicable. The financial statements present only the Water Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

2. Significant Accounting Policies

Basis of Accounting

In conformity with Generally Accepted Accounting Principles (GAAP), KUB follows the provisions of GASB Statement No. 34 (Statement No. 34), *Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* as amended by GASB Statement No. 63 (Statement No. 63), *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position.* Statement No. 34 established standards for external financial reporting for all state and local governmental entities. Under Statement No. 63, financial statements include deferred outflows of resources and deferred inflows of resources, in addition to assets and liabilities, and report *net position* instead of net assets. In addition, KUB follows GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* as it relates to certain items for regulatory accounting. Regulatory accounting allows a regulated utility to defer a cost (a regulatory asset) or recognize an obligation (a regulatory liability) if it is probable that through the rate making process, there will be a corresponding increase or decrease in future revenues. Accordingly, KUB has recognized certain regulatory assets and regulatory liabilities in the accompanying Statements of Net Position.

The financial statements are prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred. The accounting and financial reporting treatment applied to the Division is determined by measurement focus. The transactions of the Division are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the Statement of Net Position. Net position (i.e., total assets and deferred outflows of resources net of total liabilities and deferred inflows of resources) is segregated into net investment in capital assets, restricted for capital activity and debt service, and unrestricted components.

Recently Adopted New Accounting Pronouncements

In November 2016, the GASB issued GASB Statement No. 83 (Statement No. 83), *Certain Asset Retirement Obligations*. The objective of this Statement is to define asset retirement obligations as a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations is required to perform future asset retirement activities related to its tangible capital assets to recognize a liability based on the guidance in this Statement. Statement No. 83 is effective for fiscal years beginning after June 15, 2018.

In April 2018, the GASB issued GASB Statement No. 88 (Statement No. 88), *Certain Disclosure Related to Debt, Including Direct Borrowings and Direct Placements.* The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowing and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Statement No. 88 is effective for fiscal years beginning after June 15, 2018.

Water Plant

Water plant and other property are stated on the basis of original cost. The cost of current repairs and minor replacements is charged to operating expense. The cost of renewals and improvements is capitalized. The original cost of utility plant assets retired or otherwise disposed of and the cost of removal less salvage value is charged to accumulated depreciation. When other property is retired, the related asset and accumulated depreciation are removed from the accounts, and the gain or loss is included in the results of operations.

The provision for depreciation of water plant in service is based on the estimated useful lives of the assets, which range from three to sixty-seven years, and is computed using the straight-line method. Pursuant to NARUC, the caption "Provision for depreciation" in the Statements of Revenues, Expenses and Changes in Net Position does not include depreciation for transportation equipment of $491,381 in fiscal year 2019 and $434,021 in fiscal year 2018. Under regulatory accounting, interest costs are expensed as incurred with construction of plant assets.

Operating Revenue

Operating revenue consists primarily of charges for services provided by the principal operations of the KUB Water Division. Operating revenue is recorded when the service is rendered, on a cycle basis, and includes an estimate of unbilled revenue. Revenues are reported net of bad debt expense of $152,993 in fiscal year 2019 and $170,192 in fiscal year 2018.

Non-operating Revenue

Non-operating revenue consists of revenues that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities.

Expense

When an expense is incurred for purposes for which there are both restricted and unrestricted net assets available, it is KUB's policy to apply those expenses to restricted net assets to the extent such are available and then to unrestricted net assets.

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; net position-restricted; and net position-unrestricted.

These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt also should be included in this component of net position. If there are significant unspent related debt proceeds at year end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

- Net position-restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.

- Net position-unrestricted – This component of net position consists of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Contributions in Aid of Construction and Capital Contributions

Contributions in aid of construction are cash collections from customers or others for a particular purpose, generally the construction of new facilities to serve new customers in excess of the investment KUB is willing to make for a particular incremental revenue source. KUB reduces the plant account balances to which contributions relate by the actual amount of the contribution and recognizes the contributions as non-operating revenue in accordance with Statement No. 62.

Capital contributions represent contributions of utility plant infrastructure constructed by developers and others in industrial parks and other developments, and transferred to KUB upon completion of construction and the initiation of utility service. In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, such contributions are recognized as revenues and capital assets upon receipt.

Inventories

Inventories, consisting of plant materials and operating supplies, are valued at the lower of average cost or replacement value.

Change in Method of Accounting for OPEB

In June 2015, the Governmental Accounting Standards Board (GASB) issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses reporting by governments that provide OPEB to their employees. This standard was adopted by KUB in 2018 and resulted in a restatement of beginning net position of $4,522,695 (Division's share $587,950) to increase the net OPEB asset by $4,522,695 (Division's share $587,950) based on revised actuarial assumptions to conform with GASB 75.

OPEB Plan

KUB's employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and were enrolled in medical coverage on their last day are eligible for post-employment health care. KUB's OPEB Trust was established by KUB's Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. KUB's policy is to fully fund the annual actuarially determined contributions, which are determined by actuarial valuation. As required by GASB Statement No. 75, KUB measures net OPEB liability as total OPEB liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a June 30, 2019 and 2018 measurement date, respectively. The net OPEB liability is $1,447,742 (Division's share $188,207) as of June 30, 2019 and the net OPEB asset is $3,751,068 (Division's share $487,639) as of June 30, 2018.

Pension Plan and Qualified Excess Benefit Arrangement

KUB's employees are participants in the Knoxville Utilities Board Pension Plan as authorized by the Charter of the City of Knoxville §1107(J) (Note 10). KUB's policy is to fully fund the annual actuarially determined contributions. As required by GASB Statement No. 68, KUB measures net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a December 31, 2018 and 2017 measurement date, respectively. The net pension liability is $6,649,756 (Division's share $864,468) as of June 30, 2019, and the net pension asset is $19,778,372 (Division's share $2,571,188) as of June 30, 2018.

KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB (Note 11). As required by GASB Statement No. 73, KUB measures the total pension liability of the QEBA. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on the December 31, 2018 and 2017 measurement dates. The total pension liability of the QEBA is $231,883 (Division's share $30,145) as of June 30, 2019 and $280,341 (Division's share $36,444) as of June 30, 2018.

Investments

Investments are carried at fair value as determined by quoted market prices at the reporting date.

Self-Insurance

KUB has established self-insurance programs covering portions of workers' compensation, employee health, environmental liability, general liability, property and casualty liability, and automobile liability claims. A liability is accrued for claims as they are incurred. When applicable, claims in excess of the self-insured risk are covered by KUB's insurance carrier. Additionally, KUB provides certain lifetime health benefits to eligible retired employees under a self-insurance plan administered by a third party.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on historical experience and various other assumptions that KUB believes are reasonable under the circumstances. However, future events are subject to change and the best estimates and judgments routinely require adjustment. Estimates are used for, but not limited to, inventory valuation, allowance for uncollectible accounts, depreciable lives of plant assets, unbilled revenue volumes, pension trust valuations, OPEB trust valuations, insurance liability reserves, and potential losses from contingencies and litigation. Actual results could differ from those estimates.

Restricted and Designated Assets

Certain assets are restricted by bond resolutions for the construction of utility plant and debt repayment. Certain additional assets are designated by management for contingency purposes and economic development.

Cash Equivalents

For purposes of the Statements of Cash Flows, KUB considers all unrestricted and undesignated highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. Deferred inflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Deferred outflows of resources also include employer pension contributions made subsequent to the measurement date of the net pension liability and before the end of the employer's reporting period in accordance with Statement No. 71. Deferred inflows and deferred outflows also include the net difference between projected and actual earnings on pension plan investments and OPEB plan investments, differences between expected and actual experience, and changes in assumptions in accordance with Statements No. 68, 73, and 75.

Debt Premium/Discount

KUB records unamortized premium and discount on debt as a separate line item in the Long Term Debt section of the Financial Statements. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Debt Issuance Costs

In accordance with regulatory accounting, KUB records debt issuance costs as an Other Asset. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Deferred Gain/Loss on Refunding of Debt

KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Compensated Absences

KUB accrues a liability for earned but unpaid paid-time off (PTO) days.

Subsequent Events

KUB has evaluated events and transactions through October 30, 2019, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold $20 million in water system revenue bonds in July 2019 for the purpose of funding water system capital improvements in fiscal year 2020. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent. Annual debt service payments including principal and interest range from $774,068 to $1,051,450 with final maturity in fiscal year 2049.

Recently Issued Accounting Pronouncements

In January 2017, the GASB issued GASB Statement No. 84 (Statement No. 84), *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 is effective for fiscal years beginning after December 15, 2018.

In June 2017, the GASB issued GASB Statement No. 87 (Statement No. 87), *Leases*. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset. Statement No. 87 is effective for fiscal years beginning after December 15, 2019.

In June 2018, the GASB issued GASB Statement No. 89 (Statement No. 89), *Accounting for Interest Cost Incurred Before the End of a Construction Period.* The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period, and to simplify accounting for interest cost incurred before the end of a construction period. Statement No. 89 is effective for fiscal years beginning after December 15, 2019.

In August 2018, the GASB issued GASB Statement No. 90 (Statement No. 90), *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61.* The objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. Statement No. 90 is effective for fiscal years beginning after December 15, 2018.

In May 2019, the GASB issued GASB Statement No. 91 (Statement No. 91), *Conduit Debt Obligations.* The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. Statement No. 91 is effective for fiscal years beginning after December 15, 2020.

KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

3. Deposits and Investments

KUB follows the provisions of Statement No. 40 of the Governmental Accounting Standards Board, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3*. This Statement establishes and modifies disclosure requirements for state and local governments related to deposit and investment risks. KUB classifies its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*.

KUB's investment policy provides the framework for the administration and investment of cash deposits. The investment policy follows Tennessee State law and defines the parameters under which KUB funds should be invested. State law authorizes KUB to invest in obligations of the United States Treasury, its agencies and instrumentalities; certificates of deposit; repurchase agreements; money market funds; and the State Treasurer's Investment Pool.

Interest Rate Risk. KUB's primary investment objectives are to place investments in a manner to ensure the preservation of capital, remain sufficiently liquid to meet all operating requirements, and maximize yield of return. KUB minimizes its exposure to interest rate risk by adhering to Tennessee State law requirements for the investment of public funds. This includes limiting investments to those types described above and limiting maturity horizons. The maximum maturity is four years from the date of investment. KUB also limits its exposure by holding investments to maturity unless cash flow requirements dictate otherwise.

Credit Risk. KUB's investment policy, as required by state law, is to apply the prudent-person rule: Investments are made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable income to be derived, as well as the probable safety of their capital.

Custodial Credit Risk. KUB's investment policy limits exposure to custodial credit risk by restricting investments to a standard set forth by state law. All deposits in excess of federal depository insurance limits are collateralized with government securities held in KUB's name by a third-party custodian bank(s) acting as KUB's agent(s), or through the State of Tennessee's collateral pool. Financial institutions that participate in the collateral pool are subject to special assessment; therefore, the deposits are considered insured. A portion of KUB's investments are generally held in the State of Tennessee Local Government Investment Pool (LGIP). The LGIP is a part of the State Pooled Investment Fund and is sponsored by the State of Tennessee Treasury Department. Tennessee Code Annotated ¶9-4-701 *et seq*. authorizes local governments to invest in the LGIP. None of KUB's investments are exposed to custodial credit risk.

Classification of deposits and investments per Statement of Net Position:

	2019	2018
Current assets		
Cash and cash equivalents	$ 12,761,344	$ 14,150,014
Short-term investments	2,495,500	-
Short-term contingency fund investments	14,317,711	3,114,455
Other assets		
Long-term contingency fund investments	3,438,870	13,459,479
Restricted assets		
Water bond fund	4,415,948	4,050,177
Other funds	2,793	2,788
	$ 37,432,166	$ 34,776,913

The above amounts do not include accrued interest of $88,563 in fiscal year 2019 and $72,682 in fiscal year 2018. Interest income is recorded on an accrual basis.

Investments and maturities of KUB's deposits and investments as held by financial institutions as of June 30, 2019:

	Deposit and Investment Maturities (in Years)		
	Fair Value	Less Than 1	1-5
Supersweep NOW and Other Deposits	$ 13,328,178	$ 13,328,178	$ -
State Treasurer's Investment Pool	2,774,803	2,774,803	-
Agency Bonds	20,252,081	16,813,211	3,438,870
Certificates of deposits	1,641,045	1,641,045	-
	$ 37,996,107	$ 34,557,237	$ 3,438,870

KUB categorizes its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*. The hierarchy is based on the valuation inputs used to measure the fair value of an asset with a maturity at purchase greater than one year. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

KUB has the following recurring fair value measurements as of June 30, 2019:

- U.S. Agency bonds of $3,438,870, which have a maturity at purchase of greater than one year, are valued using quoted market prices (Level 1 inputs)

KUB measures investments with a maturity at purchase of one year or less at amortized cost, which is considered a fair value equivalent due to their nature. Investments in the State Treasurer's Investment Pool are measured at net asset value (NAV) per share.

4. Accounts Receivable

Accounts receivable consists of the following:

	2019	**2018**
Wholesale and retail customers		
Billed services	$ 4,172,874	$ 3,811,495
Unbilled services	2,065,114	2,025,426
Other	302,164	226,937
Allowance for uncollectible accounts	(57,429)	(54,237)
	$ 6,482,723	$ 6,009,621

5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2019	**2018**
Trade accounts	$ 1,905,884	$ 1,794,385
Salaries and wages	476,958	451,093
Self-insurance liabilities	248,496	236,949
	$ 2,631,338	$ 2,482,427

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6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2018	Additions	Payments	Defeased	Balance June 30, 2019	Amounts Due Within One Year
U-2009 - 3.0 - 4.5%	$ 950,000	$ -	$ 950,000	$ -	$ -	$ -
W-2011 - 2.0 - 5.0%	21,700,000	-	550,000	-	21,150,000	550,000
X-2012 - 3.0 - 5.0%	7,615,000	-	565,000	-	7,050,000	590,000
Y-2013 - 3.0 - 4.0%	8,390,000	-	320,000	-	8,070,000	340,000
Z-2013 - 2.0 - 5.0%	22,675,000	-	525,000	-	22,150,000	550,000
AA-2014 - 2.0 - 4.0%	7,425,000	-	150,000	-	7,275,000	175,000
BB-2015 - 2.0 - 5.0%	21,870,000	-	885,000	-	20,985,000	950,000
CC-2015 - 2.0 - 4.0%	18,875,000	-	425,000	-	18,450,000	425,000
DD-2016 - 3.0 - 5.0%	24,250,000	-	500,000	-	23,750,000	525,000
EE-2016 - 2.0 - 5.0%	20,775,000	-	100,000	-	20,675,000	1,090,000
FF-2017 - 3.0 - 5.0%	4,840,000	-	465,000	-	4,375,000	475,000
GG-2017 - 2.125 - 5.0%	19,800,000	-	380,000	-	19,420,000	395,000
HH-2018 - 3.0 - 5.0%	-	19,995,000	525,000	-	19,470,000	380,000
Total bonds	$ 179,165,000	$ 19,995,000	$ 6,340,000	$ -	$ 192,820,000	$ 6,445,000
Unamortized Premium	5,743,978	467,809	364,462	-	5,847,325	-
Total long term debt	$ 184,908,978	$ 20,462,809	$ 6,704,462	$ -	$ 198,667,325	$ 6,445,000

	Balance June 30, 2017	Additions	Payments	Defeased	Balance June 30, 2018	Amounts Due Within One Year
U-2009 - 3.0 - 4.5%	$ 1,875,000	$ -	$ 925,000	$ -	$ 950,000	$ 950,000
W-2011 - 2.0 - 5.0%	22,250,000	-	550,000	-	21,700,000	550,000
X-2012 - 3.0 - 5.0%	8,150,000	-	535,000	-	7,615,000	565,000
Y-2013 - 3.0 - 4.0%	8,690,000	-	300,000	-	8,390,000	320,000
Z-2013 - 2.0 - 5.0%	23,175,000	-	500,000	-	22,675,000	525,000
AA-2014 - 2.0 - 4.0%	7,575,000	-	150,000	-	7,425,000	150,000
BB-2015 - 2.0 - 5.0%	22,735,000	-	865,000	-	21,870,000	885,000
CC-2015 - 2.0 - 4.0%	19,275,000	-	400,000	-	18,875,000	425,000
DD-2016 - 3.0 - 5.0%	24,725,000	-	475,000	-	24,250,000	500,000
EE-2016 - 2.0 - 5.0%	20,875,000	-	100,000	-	20,775,000	100,000
FF-2017 - 3.0 - 5.0%	5,310,000	-	470,000	-	4,840,000	465,000
GG-2017 - 2.125 - 5.0%	-	20,000,000	200,000	-	19,800,000	380,000
Total bonds	$ 164,635,000	$ 20,000,000	$ 5,470,000	$ -	$ 179,165,000	$ 5,815,000
Unamortized Premium	5,357,304	735,453	348,779	-	5,743,978	-
Total long term debt	$ 169,992,304	$ 20,735,453	$ 5,818,779	$ -	$ 184,908,978	$ 5,815,000

Debt service over remaining term of the debt is as follows:

Fiscal Year		**Total Principal**		**Interest**		**Grand Total**
2020	$	6,445,000	$	6,802,543	$	13,247,543
2021		6,695,000		6,553,194		13,248,194
2022		7,010,000		6,299,043		13,309,043
2023		7,280,000		6,003,744		13,283,744
2024		7,545,000		5,709,043		13,254,043
2025 - 2029		42,180,000		24,530,586		66,710,586
2030 - 2034		42,510,000		17,603,833		60,113,833
2035 - 2039		33,145,000		11,191,024		44,336,024
2040 - 2044		29,425,000		5,073,762		34,498,762
2045 - 2048		10,585,000		708,990		11,293,990
Total	$	192,820,000	$	90,475,762	$	283,295,762

The Division has pledged sufficient revenue, after deduction of all current operating expenses (exclusive of tax equivalents), to meet bond principal and interest payments when due. The requirements for the bonds are being met through monthly deposits to the Water Bond Fund, as required by the bond covenants. As of June 30, 2019, these bond covenants had been satisfied.

During fiscal year 2018, KUB's Water Division issued GG 2017 bonds to fund water system capital improvements.

During fiscal year 2019, KUB's Water Division issued HH 2018 bonds to fund water system capital improvements.

Other liabilities consist of the following:

		Balance June 30, 2018		**Increase**		**Decrease**		**Balance June 30, 2019**
Accrued compensated absences	$	1,515,405	$	2,623,467	$	(2,578,927)	$	1,559,945
Other		16,852		81,879		(48,846)		49,885
	$	1,532,257	$	2,705,346	$	(2,627,773)	$	1,609,830

		Balance June 30, 2017		**Increase**		**Decrease**		**Balance June 30, 2018**
Accrued compensated absences	$	1,578,105	$	2,514,430	$	(2,577,130)	$	1,515,405
Other		20,742		99,828		(103,718)		16,852
	$	1,598,847	$	2,614,258	$	(2,680,848)	$	1,532,257

7. Lease Commitments

KUB has non-cancelable operating lease commitments for office equipment, property, and vehicles, summarized for the following fiscal years:

2020	$ 61,606
2021	16,472
2022	9,726
Total operating minimum lease payments	$ 87,804

8. Capital Assets

Capital asset activity was as follows:

	Balance June 30, 2018	Increase	Decrease	Balance June 30, 2019
Production Plant	$ 727,863	$ -	$ -	$ 727,863
Pumping & Treatment Plant	84,704,278	3,221,112	(209,045)	87,716,345
Distribution Plant				
Distribution Mains	196,587,374	7,202,772	(1,316,973)	202,473,173
Transmission Mains	33,301,968	2,483,590	(542,662)	35,242,896
Services & Meters	42,680,113	8,252,605	(1,378,575)	49,554,143
Other Accounts	25,981,224	1,164,600	(70,775)	27,075,049
Total Distribution Plant	$ 298,550,679	$ 19,103,567	$ (3,308,985)	$ 314,345,261
Total General Plant	28,217,439	966,769	(327,756)	28,856,452
Total Water Plant	$ 412,200,259	$ 23,291,448	$ (3,845,786)	$ 431,645,921
Less Accumulated Depreciation	(119,537,309)	(10,815,514)	3,324,379	(127,028,444)
Net Plant Assets	$ 292,662,950	$ 12,475,934	$ (521,407)	$ 304,617,477
Work In Progress	25,514,290	31,598,956	(21,111,346)	36,001,900
Total Net Plant	$ 318,177,240	$ 44,074,890	$ (21,632,753)	$ 340,619,377

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	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
Production Plant	$ 727,863	$ -	$ -	$ 727,863
Pumping & Treatment Plant	78,172,996	7,210,142	(678,860)	84,704,278
Distribution Plant				
Distribution Mains	184,305,419	13,030,323	(748,368)	196,587,374
Transmission Mains	33,391,821	19,277	(109,130)	33,301,968
Services & Meters	33,798,659	9,140,708	(259,254)	42,680,113
Other Accounts	25,163,649	894,061	(76,486)	25,981,224
Total Distribution Plant	$ 276,659,548	$ 23,084,369	$ (1,193,238)	$ 298,550,679
Total General Plant	27,318,053	1,660,232	(760,846)	28,217,439
Total Water Plant	$ 382,878,460	$ 31,954,743	$ (2,632,944)	$ 412,200,259
Less Accumulated Depreciation	(111,352,647)	(10,821,995)	2,637,333	(119,537,309)
Net Plant Assets	$ 271,525,813	$ 21,132,748	$ 4,389	$ 292,662,950
Work In Progress	27,006,789	31,105,542	(32,598,041)	25,514,290
Total Net Plant	$ 298,532,602	$ 52,238,290	$ (32,593,652)	$ 318,177,240

9. Risk Management

KUB is exposed to various risks of loss related to active and retiree medical claims; injuries to workers; theft of, damage to, and destruction of assets; environmental damages; and natural disasters. Claims expenditures and liabilities are reported when it is probable that a loss has occurred, and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported.

These liabilities are included in accrued expenses in the Statement of Net Position. The liability is KUB's best estimate based on available information. At June 30, 2019 and June 30, 2018, the amount of these liabilities was $248,496 and $236,949, respectively, resulting from the following changes:

	2019	2018
Balance, beginning of year	$ 236,949	$ 245,933
Current year claims and changes in estimates	2,233,278	2,025,925
Claims payments	(2,221,731)	(2,034,909)
Balance, end of year	$ 248,496	$ 236,949

10. Pension Plan

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2017 to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). The Plan is designed to provide retirement, disability and death benefits to KUB employees. KUB administers the Plan through an Administrative

Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2018	**2017**
Inactive plan members:		
Terminated vested participants	21	34
Retirees and beneficiaries	588	602
Active plan members	592	629
Total	1,201	1,265

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost of living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of 3 percent of the first $4,800 of annual earnings and 5 percent of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2018:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%
Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $3,156,661 and $3,756,283 for 2017 and 2016, respectively, were made during the Plan sponsor's fiscal years ending June 30, 2019 and 2018, respectively. Of these amounts, $410,366 and $488,317 are attributable to the Water Division. The fiscal year 2019 contribution was determined as part of the January 1, 2017 valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant's benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability or death.

Net Pension Liability

The below summarizes the disclosures of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*("GASB 68"), which requires measurement of the net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement date, respectively. The Division's share of the net pension liability at June 30, 2019 is $864,468 and the net pension asset at June 30, 2018 is $2,571,188.

GASB 68 requires certain disclosures related to the net pension liability of the Plan as disclosed below:

		2018		**2017**
Total pension liability	$	212,157,951	$	207,598,733
Plan fiduciary net position		(205,508,195)		(227,377,105)
Plan's net pension liability (asset)	$	6,649,756	$	(19,778,372)
Plan fiduciary net position as a percentage of the total pension liability		96.87%		109.50%

Changes in Net Pension Liability are as follows:

		Total Pension Liability (a)		Increase (Decrease) Plan Fiduciary Net Position (b)		Net Pension Liability (Asset) (a) - (b)
Balances at December 31, 2017	$	207,598,733	$	227,377,105	$	(19,778,372)
Changes for the year:						
Service cost		5,095,488		-		5,095,488
Interest		15,344,193		-		15,344,193
Differences between Expected and Actual Experience		(605,649)		-		(605,649)
Changes of Assumptions		-		-		-
Contributions - employer		-		3,456,475		(3,456,475)
Contributions - rollovers		-		2,078,184		(2,078,184)
Contributions - member		-		2,941		(2,941)
Net investment income		-		(11,685,780)		11,685,780
Benefit payments		(15,274,814)		(15,274,814)		-
Administrative expense		-		(445,916)		445,916
Net changes		4,559,218		(21,868,910)		26,428,128
Balances at December 31, 2018	$	212,157,951	$	205,508,195	$	6,649,756

Actuarial Assumptions
The total pension liability was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2018, updated to December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market

Amortization method	Level dollar, 30-year closed period with 23 years remaining as of January 1, 2018 and 24 years remaining as of January 1, 2017, or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2018 and 2017, the unfunded liability was negative.
Discount rate	7.5%
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation	2.8 %

The actuarial assumptions used in the January 1, 2018 and 2017 valuations were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. Subsequent revisions to lump sum and post-disability assumptions were based upon updated experience through December 31, 2015 and to retirement and termination rates and expense assumptions based upon updated experience through December 31, 2016.

The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plan's target asset allocation as of December 31, 2018 and 2017 are summarized in the following table. The real rate of return reported for fixed income is for aggregate fixed income. The Plan has both aggregate and long duration fixed income.

	Long Term Expected Real Rate of Return	
Asset Class	**2018**	**2017**
Domestic equity	5.8%	5.0%
Non-U.S. equity	6.9%	6.6%
Real estate equity	6.0%	5.6%
Debt securities	1.7%	1.4%
Cash and deposits	0.7%	0.7%

Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate
The following presents the net pension liability of the Plan as of December 31, 2018, calculated using the discount rate of 7.5 percent, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is one percent lower (6.5 percent) or one percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
Plan's net pension liability	$ 23,948,053	$ 6,649,756	$ (8,451,269)

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $4,128,608 (Division's share $536,719).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5.00 years. During the measurement year, there was an experience gain of $605,649 with $121,129 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $484,520 (Division's share $62,988). Unrecognized experience gains from prior periods were $2,966,120 of which $1,042,252 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,923,868 (Division's share $250,103).

During the measurement year, there were no benefit changes or assumption changes. Unrecognized assumption change decreases from prior periods were $2,045,837 of which $658,104 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,387,733 (Division's share $180,405).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $28,364,098. $5,672,818 of that loss was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $8,925,385 of which $1,848,879 was recognized as a decrease in pension expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2018 of $15,614,774 (Division's share $2,029,921). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,578,332 (Division's share $205,183) at June 30, 2019 for employer contributions made between December 31, 2018 and June 30, 2019.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,408,388
Changes in assumptions	-	1,387,733
Net difference between projected and actual earnings on pension plan investments	15,614,774	-
Contributions subsequent to measurement date	1,578,332	-
Total	$ 17,193,106	$ 3,796,121
Division's share	$ 2,235,104	$ 493,496

$1,578,332 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 3,597,035
2021	898,518
2022	1,771,410
2023	5,551,690
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of ($15,659) (Division’s share ($2,036)).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5.00 years. During the measurement year, there was an experience gain of $1,087,161 with $217,432 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $869,729 (Division’s share $113,064). Unrecognized experience gains from prior periods were $2,921,210 of which $824,819 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $2,096,391 (Division’s share $272,531).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of $357,633 with $71,526 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $286,107 (Division’s share $37,194). Unrecognized assumption change gains from prior periods were $2,346,307 of which $586,577 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,759,730 (Division’s share $228,765).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $17,456,614. $3,491,323 of that gain was recognized in the current year and an identical amount will be recognized in each of the next four years. Net unrecognized investment losses from prior periods were $6,682,351 of which $1,642,445 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment gains this year along with the net unrecognized investment losses from prior periods results in a net difference between projected and actual

earnings on pension plan investments as of December 31, 2017 of ($8,925,384) (Division's share ($1,160,300)). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,878,146 (Division's share $244,159) at June 30, 2018 for employer contributions made between December 31, 2017 and June 30, 2018.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,966,120
Changes in assumptions	-	2,045,837
Net difference between projected and actual earnings on pension plan investments	-	8,925,385
Contributions subsequent to measurement date	1,878,146	-
Total	$ 1,878,146	$ 13,937,342
Division's share	$ 244,159	$ 1,811,854

11. Qualified Excess Benefit Arrangement

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are not subject to cost of living adjustments.

As of June 30, 2019, there are 568 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There is currently one member receiving benefits under the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits, therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis, funded by KUB. There are no assets accumulated in a trust that meets the GASB's criteria.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement dates, respectively. The Division's share of the total pension liability at June 30, 2019 is $30,145 and at June 30, 2018 is $36,444.

GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2018	**2017**
Total pension liability	$231,883	$280,341
Deferred outflows	(52,287)	(69,716)
Deferred inflows	47,260	-
Net impact on Statement of Net Position	$226,856	$210,625
Covered payroll	$42,150,040	$43,309,374
Total pension liability as a % of covered payroll	0.55%	0.65%

Changes in total pension liability of the QEBA are as follows:

	Increase (Decrease) Total Pension Liability
Balances at December 31, 2017	$ 280,341
Changes for the year:	
Service cost	941
Interest	9,676
Changes of Benefits	-
Differences between Expected and Actual Experience	(36,125)
Changes of Assumptions	(22,950)
Benefit payments	-
Net changes	(48,458)
Balances at December 31, 2018	$ 231,883

Actuarial Assumptions
The total pension liability of the QEBA was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2019, for December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 22 years remaining as of January 1, 2019 and 24 years remaining as of January 1, 2017.
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct MP2018 fully generational as of January 1, 2019 and Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA as of January 1, 2017
Inflation	2.5% as of January 1, 2019 and 2.8% as of January 1, 2017

The actuarial assumptions used in the January 1, 2019 valuation were based on the results of an actuarial experience study for the period January 1, 2014 through December 31, 2018.

Discount rate
The QEBA is not funded. In accordance with paragraph 31 of GASB 73, the discount rate is based on the Bond Buyer 20-Bond GO index. This rate was 4.1% at December 31, 2018.

Sensitivity of the total pension liability to changes in the discount rate
The following presents the total pension liability of the QEBA as of December 31, 2018, calculated using the discount rate of 4.1 percent, as well as what the QEBA's total pension liability would be if it were calculated using a discount rate that is one percent lower (3.1 percent) or one percent higher (5.1 percent) than the current rate:

	1% Decrease (3.1%)	Current Discount Rate (4.1%)	1% Increase (5.1%)
QEBA's total pension liability	$ 254,623	$ 231,883	$ 212,364

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $29,543 for the QEBA (Division's share $3,841). This amount is not expected to be the same as KUB's contribution to the QEBA ($13,312), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$226,856 - $210,625 + $13,312].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5 years. During the measurement year, there was an experience gain of $36,125 with $7,225 recognized in the current year and each of the next four years, resulting in a deferred inflow of $28,900 (Division's share $3,757). There was a deferred outflow at the end of the measurement year of $8,210 from experience losses in prior years (Division's share $1,067).

During the measurement year, there were no benefit changes. There was a decrease in the total pension liability due to assumption changes of $22,950 with $4,590 recognized in the current year and each of the next four years, resulting in a deferred inflow of $18,360 (Division's share $2,387). There was a deferred outflow at the end of the measurement year of $44,077 from assumption changes in prior years (Division's share $5,730). In addition, KUB recorded a deferred outflow of resources of $7,242 at June 30, 2019 for contributions between December 31, 2018 and June 30, 2019 (Division's share $942).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 8,210	$ 28,900
Changes in assumptions	44,077	18,360
Contributions subsequent to measurement date	7,242	-
Total	$ 59,529	$ 47,260
Division's share	$ 7,739	$ 6,144

$7,242 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the total pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 5,614
2021	5,614
2022	5,614
2023	(11,815)
Thereafter	-

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For the year ended June 30, 2018, KUB recognized pension expense of $29,527 for the QEBA (Division's share $3,838). This amount is not expected to be the same as KUB's contribution to the QEBA ($3,979), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$210,625 - $185,077 + $3,979].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5 years. During the measurement year, there was an experience loss of $13,684 with approximately $2,737 recognized in the current year and each of the next four years, resulting in a deferred outflow of $10,947 (Division's share $1,423).

During the measurement year, there were no benefit changes. There was an increase in the total pension liability due to assumption changes of $73,461 with approximately $14,692 recognized in the current year and each of the next four years, resulting in a deferred outflow of $58,769 (Division's share $7,640).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 10,947	$ -
Changes in assumptions	58,769	-
Total	$ 69,716	$ -
Division's share	$ 9,063	$ -

12. Defined Contribution Plan

The KUB Asset Accumulation 401(k) Plan (the "401(k) Plan") is a defined contribution 401(k) employee retirement savings plan covering eligible KUB employees established by the KUB Board of Commissioners in accordance with the Charter of the City of Knoxville, Tennessee. The 401(k) plan's assets are held in trust under an agreement between KUB and Fidelity Management Trust Company. Employees hired prior to January 1, 2011 may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. Employees hired on or after January 1, 2011 have an enhanced 401(k) due to the closure of the Defined Benefit Pension Plan. They may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. They also receive a nonelective KUB contribution of 3 percent to 6 percent, depending on years of service, whether they contribute or not.

KUB funded 401(k) matching contributions and nonelective contributions of $2,410,201 (Division's share $313,326) and $2,174,711 (Division's share $282,713), respectively, for the years ended June 30, 2019 and 2018.

13. Other Post-Employment Benefits (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post Employment Benefits Trust (the Trust) is a single-employer Other Post Employment Benefits Plan (the OPEB Plan) established by the Knoxville Utilities Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Trust may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective July 1, 1999, KUB closed the OPEB Plan such that persons employed or re-employed by KUB on or after July 1, 1999, are not eligible to participate, but that eligible employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the "Rule of 80", the sum of age and at least 20 years of qualified service equal or exceed 80, accrue benefits under the Plan.

Participants in the OPEB Plan consisted of the following as of June 30:

	2019	2018
Retirees	554	562
Dependents of retirees	550	561
Eligible active employees	288	309
Total	1,392	1,432

Benefits

Other post-employment benefits may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Only medical and pharmacy are currently provided to eligible retirees.

Contributions and Plan Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB's current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust's Board shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to and in accordance with the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired plan members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $250 per month for pre-Medicare family health insurance. For individuals who retired after January 1998 the required monthly premium for pre-Medicare health insurance is $250 for single coverage and $500 for family coverage. There is currently no premium for Medicare eligible retirees or dependents. KUB is responsible for determining the level of retired plan member contributions on an annual basis, as part of its review of healthcare cost sharing.

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2019:

Asset Class	**Target Allocation**
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

No contributions were made to the OPEB Trust for the fiscal years ending June 30, 2019 and 2018, based on the OPEB Plan's actuarial valuations as of January 1, 2017, and 2016.

Implementation of GASB 75

In fiscal year 2018, KUB adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), which requires measurement of the net OPEB liability as total OPEB liability, less the amount of the Trust's fiduciary net position. The amounts reported as of June 30, 2019 are based on the reporting date for the KUB Other Post-Employment Benefits Plan which is June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019 and the Total OPEB Liability as of the valuation date, January 1, 2018, updated to June 30, 2019. The Division's share of the total net OPEB liability at June 30, 2019 is $188,207 and the net OPEB asset at June 30, 2018 is $487,639.

The components of the net OPEB liability of the Trust are as follows as of June 30:

	2019	**2018**
Total OPEB liability	$ 50,197,938	$ 45,604,431
Plan fiduciary net position	48,750,196	49,355,499
Net OPEB liability (asset)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%

Changes in Net OPEB Liability are as follows:

	Total OPEB Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (a) - (b)
Balances at June 30, 2018	$ 45,604,431	$ 49,355,499	$ (3,751,068)
Changes for the year:			
Service cost	270,515	-	270,515
Interest	3,624,737	-	3,624,737
Differences between Expected and Actual Experience	999,098	-	999,098
Changes of Assumptions	3,231,601	-	3,231,601
Contributions - employer	-	-	-
Contributions - member	-	-	-
Net investment income	-	2,981,928	(2,981,928)
Benefit payments	(3,532,444)	(3,532,444)	-
Administrative expense	-	(54,787)	54,787
Net changes	4,593,507	(605,303)	5,198,810
Balances at June 30, 2019	$ 50,197,938	$ 48,750,196	$ 1,447,742

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Actuarial assumptions

The total OPEB liability was determined by actuarial valuations, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation dates:	January 1, 2018, updated to June 30, 2019; January 1, 2017, updated to June 30, 2018
Discount rate:	7.5%
Healthcare cost trend rates:	Pre-Medicare: 8.00% grading down to 4.50% over 20 years as of January 1, 2018; 7.83% grading down to 4.50% over 19 years as of January 1, 2017 Medicare: 7.00% grading down to 4.50% over 20 years as of January 1, 2018; 6.88% grading down to 4.50% over 19 years as of January 1, 2017 Administrative expenses: 3.0% per year
Salary increases:	From 2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013, with subsequent revisions to retirement and termination assumptions based upon a special experience study, which reflected experience through December 31, 2016.

The long-term expected rate of return on Trust investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Trust investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The long-term expected rate of return may be lower in periods of current strong performance due to future valuations that mean revert to the long-term average. Best estimates of arithmetic real rates of return for each major asset class included in the Trust's target asset allocation (see the discussion of the Trust's Investment Policy) are summarized in the chart below.

	Long Term Expected Real Rate of Return	
Asset Class	**2019**	**2018**
Domestic equity	5.5%	5.1%
International equity	6.4%	6.6%
Real estate equity	5.9%	5.8%
Debt securities	1.5%	1.6%
Cash and deposits	0.6%	0.8%

Discount rate
The discount rate used to measure the total OPEB liability was 7.5 percent. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected future benefit payments. Therefore, the long-term expected rate of return on Trust investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB liability to changes in the discount rate.
The following presents the net OPEB liability of the Trust as of June 30, 2019, calculated using the discount rate of 7.5 percent, as well as what the Trust’s net OPEB liability would be if it were calculated using a discount rate that is 1 percent lower (6.5 percent) or 1 percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Net OPEB liability (asset)	$ 5,912,340	$ 1,447,742	$ (2,396,293)

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.
The following presents the net OPEB liability of the Trust as of June 30, 2019, as well as what the Trust’s net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percent lower or 1 percent higher than the current rate:

	1% Decrease	**Baseline Trends**	**1% Increase**
Net OPEB liability (asset)	$ (3,158,239)	$ 1,447,742	$ 6,713,737

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2019, KUB recognized OPEB expense of $3,046,377 (Division’s share $396,029).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $999,098 with $499,549 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $499,549 (Division’s share $64,941). Unrecognized experience losses from prior periods were $662,384 of which the entire amount is recognized as an increase in OPEB expense in the current year.

During the measurement year, there were no benefit changes. There was an increase in the Total OPEB Liability due to assumption changes of $3,231,601 with $1,615,801 of that recognized in the current year and in the next year, resulting in a deferred outflow of $1,615,800 (Division’s share $210,054). Unrecognized assumption changes from prior periods were ($198,590) of which the entire amount is recognized as a decrease in OPEB expense in the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $587,645. $117,529 of that was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $123,047 of which $30,762 was recognized as a decrease in OPEB expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on OPEB plan investments as of June 30, 2019 of $377,831 (Division's share $49,118). The table on the next page summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 499,549	$ -
Changes in assumptions	1,615,800	-
Net difference between projected and actual earnings on OPEB plan investments	377,831	-
Total	$ 2,493,180	$ -
Division's share	$ 324,113	$ -

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2020	$ 2,202,116
2021	86,767
2022	86,768
2023	117,529
Thereafter	-

For the year ended June 30, 2018, KUB recognized OPEB expense of $430,880 (Division's share $56,014).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $1,324,769 with $662,385 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $662,384 (Division's share $86,110).

During the measurement year, there were no benefit changes. There was a decrease in the Total OPEB Liability due to assumption changes of $397,180 with $198,590 of that recognized in the current year and in the next year, resulting in a deferred inflow of $198,590 (Division's share $25,817).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $153,809. $30,762 of that was recognized in the current year and $123,047 (Division's share $15,996) will become a deferred inflow of resources recognized over the next four years. The table below summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 662,384	$ -
Changes in assumptions	-	198,590
Net difference between projected and actual earnings on OPEB plan investments	-	123,047
Total	$ 662,384	$ 321,637
Division's share	$ 86,110	$ 41,813

14. Related Party Transactions

The Division, in the normal course of operations, is involved in transactions with the City of Knoxville and with other divisions of KUB. Such transactions for the years ended June 30, 2019 and 2018 are summarized as follows:

	2019	2018
City of Knoxville		
Amounts billed by the Division for utilities and related services	$ 4,755,382	$ 4,454,036
Payments by the Division in lieu of property tax	3,511,656	3,304,740
Payments by the Division for services provided	292,759	235,324
Other divisions of KUB		
Amounts billed to other divisions for utilities and related services provided	421,675	386,195
Interdivisional rental expense	232,903	214,141
Interdivisional rental income	96,590	142,866
Amounts billed to the Division by other divisions for utilities services provided	3,089,267	3,337,521

With respect to these transactions, accounts receivable from the City of Knoxville included in the balance sheet at year end were as follows:

	2019	2018
Accounts receivable	$ 406,848	$ 379,699

15. Other Commitments and Contingencies

In the normal course of business, there are various lawsuits pending against KUB. Management has reviewed these lawsuits with counsel, who is vigorously defending KUB's position and is of the opinion that the ultimate disposition of these matters will not have a material adverse effect on KUB's financial position, results of operations or cash flows.

Knoxville Utilities Board Water Division
Required Supplementary Information – Schedule of Changes in Net Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 5,095,488	$ 4,607,486	$ 4,226,985	$ 4,157,062	$ 4,092,808
Interest	15,344,193	15,015,282	14,966,559	14,812,784	14,698,657
Differences between expected and actual experience	(605,649)	(1,087,161)	(2,233,762)	(1,890,334)	-
Changes of assumptions	-	(357,633)	(2,932,883)	-	-
Benefit payments, including refunds of member contributions	(15,274,814)	(14,969,979)	(14,138,511)	(15,350,926)	(15,533,167)
Net change in total pension liability	4,559,218	3,207,995	(111,612)	1,728,586	3,258,298
Total pension liability - beginning	207,598,733	204,390,738	204,502,350	202,773,764	199,515,466
Total pension liability - ending (a)	$ 212,157,951	$ 207,598,733	$ 204,390,738	$ 204,502,350	$ 202,773,764
Plan fiduciary net position					
Contributions - employer	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contributions - participants	2,081,125	1,488,632	555,075	487,546	475,854
Net investment income	(11,748,396)	32,360,219	13,788,263	(95,430)	22,292,369
Other additions	62,616	82,239	45,848	30,879	29,733
Benefit payments, including refunds of member contributions	(15,174,814)	(14,895,979)	(14,044,511)	(15,274,926)	(15,405,167)
Administrative expense	(445,916)	(385,282)	(441,332)	(397,160)	(378,085)
Death benefits	(100,000)	(74,000)	(94,000)	(76,000)	(128,000)
Net change in plan fiduciary net position**	(21,868,910)	22,862,426	5,052,489	(9,333,204)	12,795,245
Plan fiduciary net position - beginning**	227,377,105	204,514,679	199,462,190	208,795,394	196,000,149
Plan fiduciary net position - ending (b)**	$ 205,508,195	$ 227,377,105	$ 204,514,679	$ 199,462,190	$ 208,795,394
Plan's net pension liability - ending (a) - (b)	$ 6,649,756	$ (19,778,372)	$ (123,941)	$ 5,040,160	$ (6,021,630)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.53%	100.06%	97.54%	102.97%
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Plan's net pension liability as a percentage of covered payroll	15.78	(45.67%)	(0.28%)	11.34%	(13.66%)

Notes to Schedule:

* Information not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented in 2014.

** Excludes amounts related to 401(k) matching contributions.

Knoxville Utilities Board Water Division
Required Supplementary Information – Schedule of Employer Pension Contributions
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Actuarially determined contribution	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contribution in relation to the actuarially determined contribution	3,456,475	4,286,597	5,243,146	5,991,887	5,908,541
Contribution deficiency	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Contributions as a percentage of covered payroll	8.20%	9.90%	11.80%	13.48%	13.41%

Notes to Schedule:

Timing:	Actuarially determined contributions for a Plan year are based upon 50% of the amounts determined at the actuarial valuations for each of the two prior Plan years.
Valuation Dates:	January 1, 2017 and January 1, 2016

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Individual entry age
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 24 years remaining (25 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative.
Discount rate:	7.5%
Salary increases:	2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

* Schedule of Employer Contribution information is not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented 2014. Please refer to prior year's audited financial statements for prior methods and assumptions.

Knoxville Utilities Board Water Division

Required Supplementary Information – Schedule of Changes in Net OPEB Liability and Related Ratios

June 30, 2019

(Unaudited)

	*Year ended June 30	
	2019	2018
Total OPEB liability		
Service cost	$ 270,515	$ 202,603
Interest	3,624,737	3,295,240
Differences between expected and actual experience	999,098	1,324,769
Changes of assumptions	3,231,601	(397,180)
Benefit payments	(3,532,444)	(3,298,739)
Net change in total OPEB liability	4,593,507	1,126,693
Total OPEB liability - beginning	45,604,431	44,477,738
Total OPEB liability - ending (a)	$ 50,197,938	$ 45,604,431
Plan fiduciary net position		
Contributions - employer	$ -	$ -
Net investment income	2,981,928	3,705,473
Benefit payments	(3,532,444)	(3,298,739)
Administrative expense	(54,787)	(51,668)
Net change in plan fiduciary net position	(605,303)	355,066
Plan fiduciary net position - beginning	49,355,499	49,000,433
Plan fiduciary net position - ending (b)	$ 48,750,196	$ 49,355,499
Net OPEB liability - ending (a) - (b)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%
Covered employee payroll	$ 24,346,735	$ 23,677,080
Net OPEB liability as a percentage of covered employee payroll	5.95%	(15.84%)

Notes to Schedule:

* Information not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.

Knoxville Utilities Board Water Division
Required Supplementary Information – Schedule of Employer OPEB Contributions
June 30, 2019
(Unaudited)

	*Year ended June 30 2019	2018
Actuarially determined contribution	$ -	$ -
Contribution in relation to the annual required contribution	-	-
Contribution deficiency/(excess)	$ -	$ -
Covered employee payroll	$ 24,346,735	$ 23,677,080
Contributions as a percentage of covered employee payroll	0.00%	0.00%

Notes to Schedule:

Valuation Date:	January 1, 2017 and January 1, 2016
Timing:	Actuarially determined contribution rates are calculated based on the actuarial valuation completed 18 months before the beginning of the fiscal year.

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Entry age normal
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 19 years remaining as of January 1, 2017 (20 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative
Discount rate:	7.5%
Healthcare cost trend rate:	Pre-Medicare: 7.83% grading down to 4.5% over 19 years as of January 1, 2017; 8% to 4.5% over 20 years as of January 1, 2016 Medicare: 6.88% grading down to 4.5% over 19 years as of January 1, 2017; 7% to 4.5% over 20 years as of January 1, 2016 Administrative expenses: 3.0% per year
Salary increases:	From 2.8% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%
Investment rate of return:	7.5%
Retirement age:	2% at ages 50-57 and ages 50-55, at January 1, 2017 and January 1, 2016, respectively, grading up to 100% at age 70

* Schedule of Employer Contribution information is not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.
Please refer to prior year's audited financial statement for prior methods and assumptions.

Knoxville Utilities Board Water Division

Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement
Schedule of Changes in Total Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31		
	2018	2017	2016
Total pension liability			
Service cost	$ 941	$ 584	$ -
Interest (includes interest on service cost)	9,676	7,535	-
Changes of benefit terms	-	-	185,077
Differences between expected and actual experience	(36,125)	13,684	-
Changes of assumptions	(22,950)	73,461	-
Benefit payments, including refunds of member contributions	-	-	-
Net change in total pension liability	(48,458)	95,264	185,077
Total pension liability - beginning	280,341	185,077	-
Total pension liability - ending	$ 231,883	$ 280,341	$ 185,077
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747
Total pension liability as a percentage of covered payroll	0.55%	0.65%	0.42%

Notes to Schedule:

* There are no assets accumulated in a trust that meet the criteria in paragraph 4 of GASB 73 to pay related benefits.

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Insurance in Force
June 30, 2019
(Unaudited)

Schedule 1

Insurance coverage is for KUB as a consolidated entity.

Crime
Covers losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $5,000,000; $250,000 retention.

Directors' and Officers' Liability Insurance
Covers KUB personnel appropriately authorized to make decisions on behalf of KUB (including but not limited to Commissioners, President and CEO, Senior Vice Presidents, Vice Presidents, and Directors) for wrongful acts. Limits of coverage - $20,000,000; $1,000,000 corporate deductible, $0 individual deductible.

Employment Practices Liability
Coverage for costs related to actual or alleged employment practices violations for amounts exceeding specified amount ($500,000). Limits of coverage - $10,000,000.

Fiduciary
Covers losses resulting from wrongful acts related to KUB's Pension, 401(k), OPEB Trust funds, and Medical Plan. Limits of coverage - $10,000,000; $150,000 deductible.

Pollution Legal Liability
New conditions coverage for losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - $20,000,000.

Property Insurance
This coverage provides protection of KUB's property for fire, extended coverage, vandalism and malicious mischief, and coverage on boilers and machinery. Also included are flood and earthquake damage and mechanical failure. Limits of coverage - $250,000,000 per occurrence (subject to certain sublimits); $2,500,000 deductible per occurrence.

Travel Accident
Covers losses related to employees' business travel. Limits of coverage - $1,000,000 aggregate.

Excess Insurance for General Liability
As a government entity, KUB's liability is limited under the Tennessee Governmental Tort Liability Act (TCA §29-20-403). KUB is self-insured for up to the first $700,000 of any accident and has insurance of $1,000,000 above this retention.

Excess Insurance for Workers' Compensation
Covers all losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - Statutory; stop loss coverage applies for aggregate losses over $5,000,000.

Employee Health Plan Stop Loss Coverage
KUB's employee health plan is self-funded. KUB has purchased stop loss insurance, which covers KUB's exposure to annual expenses in excess of $500,000 per individual participant.

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

Continued on Next Page

	W-2011		X-2012		Y-2013		Z-2013		AA-2014		BB-2015		CC-2015	
FY	**Principal**	**Interest**	**Principal**	**Interest**	**Principal**	**Interest**	**Principal**	**Interest**	**Principal**	**Interest**	**Principal**	**Interest**	**Principal**	**Interest**
19-20	550,000	805,750	590,000	265,000	340,000	249,000	550,000	963,875	175,000	246,750	950,000	699,200	425,000	667,406
20-21	550,000	789,250	625,000	235,500	350,000	235,400	575,000	947,375	175,000	243,250	960,000	680,200	450,000	650,406
21-22	550,000	772,750	655,000	204,250	375,000	221,400	600,000	930,125	175,000	238,000	1,000,000	661,000	475,000	632,406
22-23	500,000	756,250	670,000	184,600	400,000	210,150	625,000	912,125	200,000	231,000	1,050,000	611,000	475,000	613,406
23-24	500,000	741,250	690,000	164,500	415,000	198,150	625,000	893,375	200,000	223,000	1,110,000	558,500	500,000	599,156
24-25	500,000	726,250	710,000	143,800	435,000	185,700	650,000	874,625	200,000	215,000	1,170,000	503,000	525,000	587,906
25-26	500,000	710,625	735,000	120,725	450,000	172,650	675,000	852,688	225,000	209,000	1,210,000	467,900	550,000	574,782
26-27	500,000	693,125	765,000	95,000	470,000	159,150	700,000	828,219	225,000	202,250	1,245,000	428,575	550,000	560,344
27-28	500,000	673,125	790,000	64,400	1,250,000	145,050	750,000	800,219	225,000	195,500	1,260,000	385,000	575,000	543,844
28-29	500,000	655,625	820,000	32,800	1,300,000	107,550	775,000	770,219	250,000	188,750	1,275,000	340,900	600,000	526,594
29-30	500,000	635,625			2,285,000	68,550	800,000	738,250	250,000	181,250	1,315,000	296,275	625,000	508,594
30-31	500,000	617,500					825,000	704,250	275,000	173,438	2,740,000	256,825	650,000	489,063
31-32	500,000	598,750					850,000	669,188	275,000	164,844	2,800,000	174,625	675,000	467,938
32-33	500,000	580,000					900,000	632,000	300,000	155,906	2,900,000	90,625	700,000	446,000
33-34	2,000,000	560,000					925,000	591,500	300,000	146,156			725,000	418,000
34-35	2,000,000	480,000					950,000	549,875	325,000	136,032			750,000	389,000
35-36	2,000,000	400,000					1,000,000	507,125	325,000	124,656			775,000	359,000
36-37	2,000,000	320,000					1,025,000	460,875	350,000	113,282			800,000	330,906
37-38	2,000,000	240,000					1,075,000	413,469	350,000	101,031			825,000	301,906
38-39	2,000,000	160,000					1,100,000	363,750	375,000	88,781			875,000	272,000
39-40	2,000,000	80,000					1,150,000	308,750	375,000	75,656			900,000	237,000
40-41							1,200,000	251,250	400,000	62,531			925,000	201,000
41-42							1,225,000	191,250	425,000	48,031			975,000	164,000
42-43							1,275,000	130,000	450,000	32,625			1,000,000	125,000
43-44							1,325,000	66,250	450,000	16,313			1,050,000	85,000
44-45													1,075,000	43,000
45-46														
46-47														
47-48														
	$ 21,150,000	$ 11,995,875	$ 7,050,000	$ 1,510,575	$ 8,070,000	$ 1,952,750	$ 22,150,000	$ 15,350,627	$ 7,275,000	$ 3,813,032	$ 20,985,000	$ 6,153,625	$ 18,450,000	$ 10,793,657

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

Continued from Previous Page

	DD-2016		EE-2016		FF-2017		GG-2017		HH-2018		TOTAL		Grand
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total
19-20	525,000	771,000	1,090,000	575,143	475,000	176,550	395,000	668,556	380,000	714,313	6,445,000	6,802,543	13,247,543
20-21	550,000	744,750	1,155,000	520,644	495,000	162,300	415,000	648,806	395,000	695,313	6,695,000	6,553,194	13,248,194
21-22	575,000	717,250	1,245,000	462,894	510,000	147,450	440,000	628,056	410,000	683,462	7,010,000	6,299,043	13,309,043
22-23	625,000	688,500	1,315,000	400,644	530,000	127,050	460,000	606,056	430,000	662,963	7,280,000	6,003,744	13,283,744
23-24	650,000	657,250	1,380,000	334,894	550,000	105,850	485,000	583,056	440,000	650,062	7,545,000	5,709,043	13,254,043
24-25	675,000	624,750	1,435,000	307,294	575,000	78,350	505,000	558,806	465,000	628,063	7,845,000	5,433,544	13,278,544
25-26	700,000	604,500	1,460,000	278,594	605,000	49,600	530,000	533,556	485,000	604,813	8,125,000	5,179,433	13,304,433
26-27	725,000	583,500	1,515,000	249,394	635,000	25,400	555,000	512,356	510,000	580,562	8,395,000	4,917,875	13,312,875
27-28	750,000	561,750	1,560,000	219,094			575,000	490,156	535,000	555,063	8,770,000	4,633,201	13,403,201
28-29	775,000	539,250	1,605,000	187,894			590,000	477,938	555,000	539,013	9,045,000	4,366,533	13,411,533
29-30	800,000	516,000	1,645,000	155,794			600,000	464,662	570,000	522,362	9,390,000	4,087,362	13,477,362
30-31	825,000	492,000	1,710,000	120,838			625,000	440,663	590,000	504,550	8,740,000	3,799,127	12,539,127
31-32	825,000	467,250	1,750,000	82,362			650,000	415,662	605,000	485,375	8,930,000	3,525,994	12,455,994
32-33	850,000	442,500	1,810,000	42,988			675,000	389,662	625,000	464,956	9,260,000	3,244,637	12,504,637
33-34	900,000	417,000					695,000	369,413	645,000	444,644	6,190,000	2,946,713	9,136,713
34-35	925,000	390,000					715,000	348,563	670,000	423,681	6,335,000	2,717,151	9,052,151
35-36	950,000	362,250					740,000	327,112	690,000	401,906	6,480,000	2,482,049	8,962,049
36-37	975,000	333,750					760,000	304,913	710,000	379,481	6,620,000	2,243,207	8,863,207
37-38	1,000,000	304,500					785,000	282,112	735,000	356,406	6,770,000	1,999,424	8,769,424
38-39	1,025,000	274,500					805,000	258,562	760,000	331,600	6,940,000	1,749,193	8,689,193
39-40	1,050,000	243,750					830,000	234,413	785,000	305,950	7,090,000	1,485,519	8,575,519
40-41	1,100,000	212,250					855,000	208,475	815,000	274,550	5,295,000	1,210,056	6,505,056
41-42	1,125,000	179,250					885,000	181,756	850,000	241,950	5,485,000	1,006,237	6,491,237
42-43	1,150,000	145,500					910,000	154,100	885,000	207,950	5,670,000	795,175	6,465,175
43-44	1,200,000	111,000					940,000	125,662	920,000	172,550	5,885,000	576,775	6,461,775
44-45	1,225,000	75,000					970,000	96,288	950,000	140,350	4,220,000	354,638	4,574,638
45-46	1,275,000	38,250					1,000,000	65,976	985,000	107,100	3,260,000	211,326	3,471,326
46-47							1,030,000	33,476	1,020,000	72,625	2,050,000	106,101	2,156,101
47-48									1,055,000	36,925	1,055,000	36,925	1,091,925
	$ 23,750,000	$ 11,497,250	$ 20,675,000	$ 3,938,471	$ 4,375,000	$ 872,550	$ 19,420,000	$ 10,408,812	$ 19,470,000	$ 12,188,538	$ 192,820,000	$ 90,475,762	$ 283,295,762

Knoxville Utilities Board Water Division

Supplemental Information - Schedule of Changes in Long-term Debt by Individual Issue

June 30, 2019

(Unaudited)

Schedule 3

Description of Indebtedness	Original Amount of Issue	Interest Rate	Date of Issue	Last Maturity Date	Outstanding Balance 7/1/2018	Issued During Period	Paid/Matured During Period	Refunded During Period	Outstanding Balance 6/30/2019
Business-Type Activities									
BONDS PAYABLE									
Payable through Water Fund									
Revenue Bond, Series U-2009	25,000,000	3.0-4.5	11/12/09	03/01/19	$ 950,000	$	$ 950,000	$	$ -
Revenue Bond, Series W-2011	25,000,000	2.0-5.0	12/01/11	03/01/40	21,700,000		550,000		21,150,000
Revenue Bond Refunding, Series X-2012	10,050,000	3.0-5.0	04/20/12	03/01/29	7,615,000		565,000		7,050,000
Revenue Bond Refunding, Series Y-2013	9,285,000	3.0-4.0	03/15/13	03/01/30	8,390,000		320,000		8,070,000
Revenue Bond, Series Z-2013	25,000,000	2.0-5.0	10/01/13	03/01/44	22,675,000		525,000		22,150,000
Revenue Bond, Series AA-2014	8,000,000	2.0-4.0	09/18/14	03/01/44	7,425,000		150,000		7,275,000
Revenue Bond Refunding, Series BB-2015	23,005,000	2.0-5.0	05/01/15	03/01/33	21,870,000		885,000		20,985,000
Revenue Bond, Series CC-2015	20,000,000	2.0-4.0	05/20/15	03/01/45	18,875,000		425,000		18,450,000
Revenue Bond, Series DD-2016	25,000,000	3.0-5.0	08/05/16	03/01/46	24,250,000		500,000		23,750,000
Revenue Bond Refunding, Series EE-2016	20,875,000	2.0-5.0	08/05/16	03/01/33	20,775,000		100,000		20,675,000
Revenue Bond Refunding, Series FF-2017	5,310,000	3.0-5.0	04/07/17	03/01/27	4,840,000		465,000		4,375,000
Revenue Bond, Series GG-2017	20,000,000	2.125-5.0	09/15/17	03/01/47	19,800,000		380,000		19,420,000
Revenue Bond, Series HH-2018	19,995,000	3.0-5.0	09/14/18	03/01/48	-	19,995,000	525,000		19,470,000
					$ 179,165,000	$ 19,995,000	$ 6,340,000	$ -	$ 192,820,000

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited) Schedule 4

Rate Class	Base Charge	Number of Customers
Residential Inside City rate	For water furnished to premises entirely within the corporate limits of the City of Knoxville:	56,272

Commodity Charge

First	2	100 Cubic Feet Per Month at $0.75 Per 100 Cubic Feet
Over	2	100 Cubic Feet Per Month at $2.65 Per 100 Cubic Feet

Additional Monthly Customer Charge

For	5/8" meter	$ 17.00
For	1" meter	31.10
For	1 1/2" meter	43.00
For	2" meter	59.00

Rate Class	Base Charge	Number of Customers
Residential Outside City rate	For water furnished to premises upon which any water faucet or other outlet is outside the corporate limits of the City of Knoxville:	13,559

Commodity Charge

First	2	100 Cubic Feet Per Month at $0.80 Per 100 Cubic Feet
Over	2	100 Cubic Feet Per Month at $3.20 Per 100 Cubic Feet

Additional Monthly Customer Charge

For	5/8" meter	$ 18.40
For	1" meter	35.40
For	1 1/2" meter	49.40
For	2" meter	68.40

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Current Rates in Force
June 30, 2019
(Unaudited)
Schedule 4

Rate Class	Base Charge	Number of Customers
Non-Residential Inside City rate/ Industrial Park rate	For water furnished to premises entirely within the corporate limits of the City of Knoxville or within the boundaries of an area recognized as an industrial park by the Tennessee Department of Economic and Community Development:	9,945

Commodity Charge

First	2	100 Cubic Feet Per Month at $1.95 Per 100 Cubic Feet
Next	8	100 Cubic Feet Per Month at $4.20 Per 100 Cubic Feet
Next	90	100 Cubic Feet Per Month at $5.25 Per 100 Cubic Feet
Next	300	100 Cubic Feet Per Month at $3.85 Per 100 Cubic Feet
Next	4,600	100 Cubic Feet Per Month at $2.40 Per 100 Cubic Feet
Next	5,000	100 Cubic Feet Per Month at $1.10 Per 100 Cubic Feet

Additional Monthly Customer Charge

For	5/8" meter	$ 17.00
For	1" meter	31.10
For	1 1/2" meter	43.00
For	2" meter	59.00
For	3" meter	151.00
For	4" meter	250.00
For	6" meter	547.00
For	8" meter	963.00
For	10" meter	1,468.00
For	12" meter	2,170.00

Rate Class	Base Charge	Number of Customers
Non-Residential Outside City rate	For water furnished to premises upon which any water faucet or other outlet is outside the corporate limits of the City of Knoxville, excluding premises within the boundaries of an area recognized as an industrial park by the Tennessee Department of Economic and Community Development:	673

Commodity Charge

First	2	100 Cubic Feet Per Month at $2.30 Per 100 Cubic Feet
Next	8	100 Cubic Feet Per Month at $4.90 Per 100 Cubic Feet
Next	90	100 Cubic Feet Per Month at $6.30 Per 100 Cubic Feet
Next	300	100 Cubic Feet Per Month at $4.50 Per 100 Cubic Feet
Next	4,600	100 Cubic Feet Per Month at $2.90 Per 100 Cubic Feet
Next	5,000	100 Cubic Feet Per Month at $1.35 Per 100 Cubic Feet

Additional Monthly Customer Charge

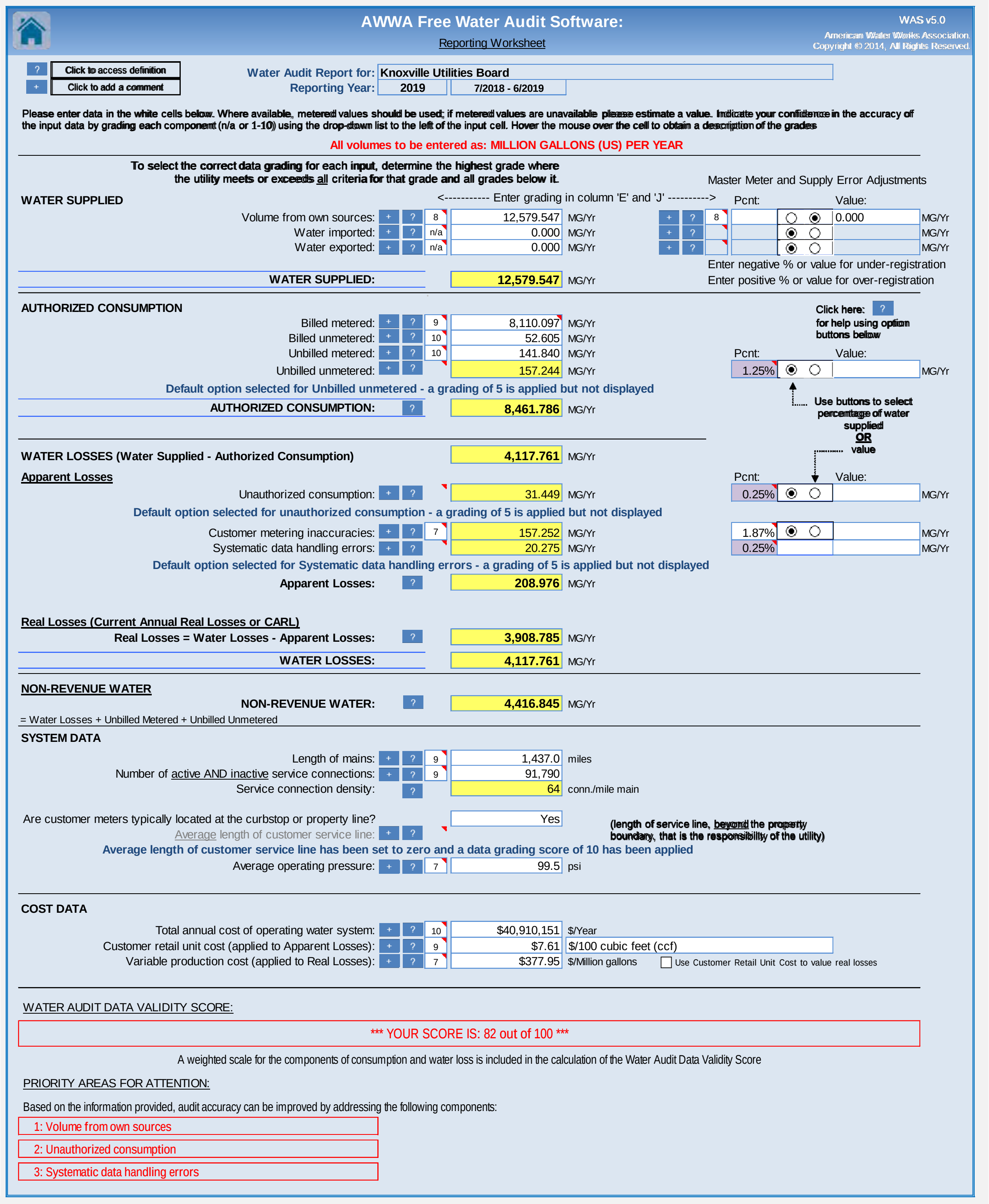
For	5/8" meter	$ 18.40
For	1" meter	35.40
For	1 1/2" meter	49.40
For	2" meter	68.40
For	3" meter	180.00
For	4" meter	301.00
For	6" meter	658.00
For	8" meter	1,156.00
For	10" meter	1,759.00
For	12" meter	2,606.00

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Unaccounted for Water
June 30, 2019
(Unaudited) Schedule 5

The following unaudited Schedule of Unaccounted for Water is attached as required by the Tennessee Code Annotated. For reports submitted January 1, 2013 and later, the American Water Works Association (AWWA) water loss reporting model must be used. For fiscal year 2019, water utilities are required to have a Validity Score greater than 80 and maintain non-revenue water as a percent by cost of operating system of less than 20%. For fiscal year 2018, water utilities are required to have a Validity Score greater than 75 and maintain non-revenue water as a percent by cost of operating system of less than 20%. For fiscal year 2019, KUB reported a Validity Score of 82 and non-revenue water as a percent by cost of operating system of 9.1%. For fiscal year 2018, KUB reported a Validity Score of 82 and non-revenue water as a percent by cost of operating system of 9.9%. See Supplemental Information Schedule 5 for the AWWA Reporting Worksheet.

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Unaccounted for Water
June 30, 2019
(Unaudited)

Schedule 5



AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.
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? Click to access definition
\+ Click to add a comment

Water Audit Report for: Knoxville Utilities Board
Reporting Year: 2019 | 7/2018 - 6/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<----------- Enter grading in column 'E' and 'J' ---------->

	Grade			Grade	Pcnt:		Value:	
Volume from own sources:	8	12,579.547	MG/Yr	8		○ ●	0.000	MG/Yr
Water imported:	n/a	0.000	MG/Yr			● ○		MG/Yr
Water exported:	n/a	0.000	MG/Yr			● ○		MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 12,579.547 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

	Grade			Pcnt:		Value:	
Billed metered:	9	8,110.097	MG/Yr				
Billed unmetered:	10	52.605	MG/Yr				
Unbilled metered:	10	141.840	MG/Yr				
Unbilled unmetered:		157.244	MG/Yr	1.25%	● ○		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 8,461.786 MG/Yr

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption) 4,117.761 MG/Yr

Apparent Losses

	Grade			Pcnt:		Value:	
Unauthorized consumption:		31.449	MG/Yr	0.25%	● ○		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

	Grade			Pcnt		Value	
Customer metering inaccuracies:	7	157.252	MG/Yr	1.87%	● ○		MG/Yr
Systematic data handling errors:		20.275	MG/Yr	0.25%			MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 208.976 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 3,908.785 MG/Yr

WATER LOSSES: 4,117.761 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 4,416.845 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

	Grade		
Length of mains:	9	1,437.0	miles
Number of active AND inactive service connections:	9	91,790	
Service connection density:		64	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 7 | 99.5 psi

COST DATA

	Grade		
Total annual cost of operating water system:	10	$40,910,151	$/Year
Customer retail unit cost (applied to Apparent Losses):	9	$7.61	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	7	$377.95	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 82 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

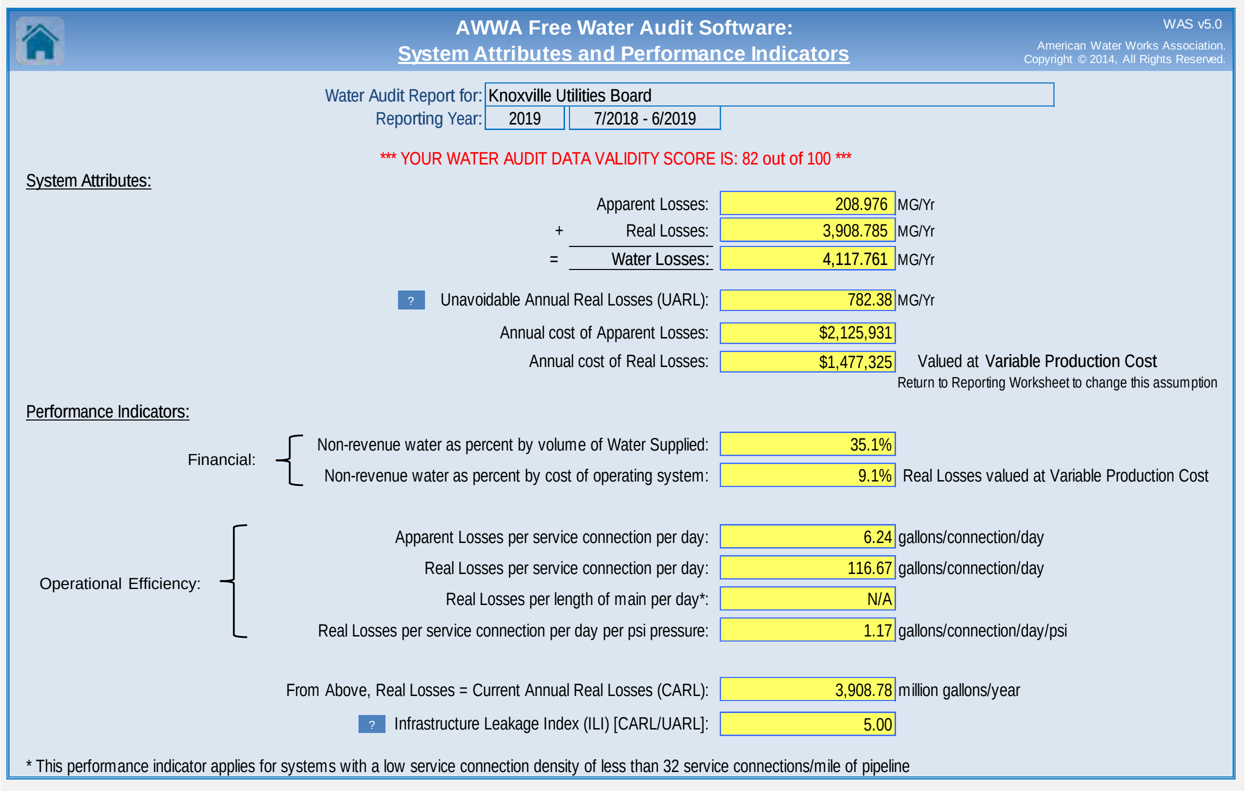
PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unauthorized consumption
3: Systematic data handling errors

Knoxville Utilities Board Water Division
Supplemental Information - Schedule of Unaccounted for Water
June 30, 2019
(Unaudited)

Schedule 5



AWWA Free Water Audit Software:
System Attributes and Performance Indicators

WAS v5.0

Water Audit Report for: Knoxville Utilities Board
Reporting Year: 2019 7/2018 - 6/2019

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 82 out of 100 ***

System Attributes:

	Apparent Losses:	208.976	MG/Yr
+	Real Losses:	3,908.785	MG/Yr
=	Water Losses:	4,117.761	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	782.38	MG/Yr
	Annual cost of Apparent Losses:	$2,125,931	
	Annual cost of Real Losses:	$1,477,325	Valued at Variable Production Cost

Return to Reporting Worksheet to change this assumption

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	35.1%	
	Non-revenue water as percent by cost of operating system:	9.1%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	6.24	gallons/connection/day
	Real Losses per service connection per day:	116.67	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	1.17	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	3,908.78	million gallons/year
	? Infrastructure Leakage Index (ILI) [CARL/UARL]:	5.00	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

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Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Board of Commissioners
Water Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Water Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements, and have issued our report thereon dated October 30, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Division's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we do not express an opinion on the effectiveness of the Division's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Division's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Commissioners
Water Division of the Knoxville Utilities Board
Knoxville, Tennessee

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Division's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Division's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

KUB
Knoxville Utilities Board

Wastewater Division

Financial Statements and Supplemental Information
June 30, 2019 and 2018

KUB Board of Commissioners

Kathy Hamilton - Chair
Tyvi Small - Vice Chair
Dr. Jerry W. Askew
Celeste Herbert
Sara Hedstrom Pinnell
Adrienne Simpson-Brown
John Worden

Management

Gabriel Bolas II
President and
Chief Executive Officer

Mark Walker
Senior Vice President and
Chief Financial Officer

Susan Edwards
Senior Vice President and
Chief Administrative Officer

Derwin Hagood
Senior Vice President and
Chief Operating Officer

Eddie Black
Senior Vice President and
Chief Technology Officer

John Williams
Vice President of
Construction

Mike Bolin
Vice President of Utility
Advancement

Julie Childers
Vice President and
Century II Administrator

John Gresham
Vice President of
Operations

Knoxville Utilities Board Wastewater Division
Index
June 30, 2019 and 2018

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Independent Auditor's Report

Board of Commissioners
Wastewater Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited the accompanying financial statements of the Wastewater Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements as listed in the index.

Management's Responsibility for the Financial Statements

The Division's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Division's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Wastewater Division of the Knoxville Utilities Board as of June 30, 2019 and 2018, and the changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Board of Commissioners
Wastewater Division of the Knoxville Utilities Board
Knoxville, Tennessee

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 26 and the required supplementary information on pages 63 through 67 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Division's basic financial statements. The supplemental information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The supplemental information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Wastewater Division and do not purport to, and do not, present fairly the financial position of the Knoxville Utilities Board, as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2019, on our consideration of the Division's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control over financial reporting and compliance.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions. The Wastewater Division (Division) provides services to certain customers in Knox County and in two surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the National Association of Regulatory Utility Commissioners (NARUC) and the Governmental Accounting Standards Board (GASB), as applicable. The financial statements present only the Wastewater Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Division's discussion and analysis is designed to (a) assist the reader in focusing on significant financial issues, (b) provide an overview of the Division's financial activity, (c) identify major changes in the Division's financial position, and (d) identify any financial concerns.

The Division's Management Discussion and Analysis (MD&A) focuses on the fiscal year ending June 30, 2019 activities, resulting changes and current known facts, and should be read in conjunction with the Division's financial statements.

Wastewater Division Highlights

System Highlights

The wastewater service area covers 243 square miles and includes 71,807 wastewater customers. KUB maintains 1,317 miles of services mains, 77 pump stations, and 4 treatment plants to treat 17.1 billion gallons of wastewater on an annual basis. The average daily flow is 46.8 million gallons.

KUB's utility system was impacted by record rainfall in fiscal year 2019, including record-setting rainfall and widespread flooding in February 2019. KUB expects to receive reimbursements in fiscal year 2020 from the Federal Emergency Management Agency (FEMA) to partially offset the cost of the 2019 storm and flood event.

KUB has added 1,542 wastewater system customers over the past three years, representing annual growth of less than one percent. In fiscal year 2019, 565 customers were added.

The typical residential wastewater customer's average monthly wastewater bill was $62.50 as of June 30, 2019, representing an increase of $3 compared to June 30, 2018. The increase in the monthly bill reflects a rate increase effective July 2018.

KUB's treatment plants continue to meet high standards of operation. KUB's Loves Creek wastewater treatment plant was awarded an Operational Excellence award from the Tennessee Kentucky Water Environment Association for the 2018 calendar year. The treatment plants additionally won awards at various levels based on performance from the National Association of Clean Water Agencies for peak performance. Loves Creek, Eastbridge, and Fourth Creek wastewater treatment plants won silver awards for calendar year 2018.

KUB continued to maintain Platinum certification with the National Biosolids Partnership following a rigorous review process and independent audit that was conducted in December 2018. (Biosolids are nutrient-rich organic matter produced by wastewater treatment and is a registered fertilizer with the Tennessee Department of Agriculture).

Century II Infrastructure Program

Century II is KUB's proactive long-range program to improve and maintain the electric, natural gas, water and wastewater systems for its customers. It includes maintenance and asset replacement strategies for each system and establishes sustainable replacement cycles. Century II moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

In May 2017, a new Century II funding resolution was adopted by the KUB Board to express the continued commitment to funding Century II programs for the next ten years. The funding will be achieved through a combination of rate increases and debt issues supplemented by cost savings and new revenue from net customer additions.

In June 2017, the Board approved the next phase of wastewater rate increases to support the Century II program. The first two of the three approved wastewater rate increases went into effect in July 2017 and July 2018, generating $4.3 million and $4.2 million in additional annual revenue, respectively. The remaining rate increase is effective in July 2019 and is expected to provide an additional $4.5 million in annual revenue to assist with the funding of the Wastewater Division.

In fiscal year 2019, KUB rehabilitated or replaced 16.9 miles of wastewater system main while staying within the Division's total capital budget.

Consent Decree

In February 2005, a Consent Decree was entered into federal court regarding the operation of KUB's wastewater system. Under the terms of the Consent Decree, the remediation of identified sanitary sewer overflows (SSOs) on KUB's wastewater system had to be completed by June 30, 2016. KUB completed all the requirements of the Consent Decree for the collection system two years in advance of the deadline.

The Consent Decree also required KUB to perform an evaluation of the wet weather performance and capacity of its wastewater treatment plants. In July 2007, KUB submitted a Composite Correction Plan (CCP) for its wastewater treatment plants to EPA for review. The development and filing of the CCP was a requirement of the federal order of February 2005. The CCP includes recommended improvements to KUB's Kuwahee and Fourth Creek treatment plants to address wet weather capacity issues noted in prior assessments. The EPA approved the CCP in January 2009 including a recommended schedule of plant improvements that extends beyond the expiration date of the original Consent Decree. An amendment to the Consent Decree incorporating and establishing this schedule was agreed to by all parties and was entered on June 23, 2009. The purpose of the Amendment is to allow KUB to complete a portion of work outlined in the CCP after the Consent Decree deadline of June 30, 2016. The CCP provides for a biologically enhanced high-rate clarification (the BEHRC) secondary treatment system to be installed at the Fourth Creek treatment plant by June 30, 2018 and at the Kuwahee treatment plant by June 30, 2021. KUB successfully completed the installation of the BEHRC system at the Fourth Creek treatment plant ahead of schedule in April 2018. Work is currently ongoing at the Kuwahee treatment plant and remains on schedule for completion before the deadline of June 30, 2021. The total cost of such improvements at the Kuwahee treatment plant is estimated to be approximately $50 million.

KUB's funding plan for the Consent Decree includes long-term bonds and a series of rate increases phased in over the term of the order. Bond proceeds fund all types of wastewater capital projects, the majority of which are related to the Consent Decree. As of June 30, 2019, the Wastewater Division had issued $542 million in bonds to fund wastewater system capital improvements since the inception of the Consent

Decree. The Board approved two 50 percent rate increases, which went into effect in April 2005 and January 2007. The Board also approved an 8 percent rate increase, which was effective in September 2008, two 12 percent rate increases, which were effective in April 2011 and October 2012, three 6 percent rate increases which were effective October 2014, October 2015 and October 2016 and three 5 percent rate increases effective July 2017, July 2018, and July 2019. KUB anticipates additional bond issues and rate increases over the next decade to help fund wastewater capital improvements.

KUB successfully completed the first cycle of Maintenance Operation Management (MOM) requirements one year before the deadline by inspecting manholes and gravity mains, smoke testing gravity mains, performing required inspections of pump stations and the related force mains, and completing all Corrective Action Plan/Engineering Report (CAP/ER) projects. KUB initiated the second MOM cycle that continues to focus on the prevention of SSOs. As part of the Century II initiative, formally known as the PACE10 program, KUB has installed storage tanks providing 34 million gallons of wastewater storage to control wet weather overflows and rehabilitated or replaced approximately 385.7 miles of collection system pipe. KUB also continues to maintain a proactive operations and maintenance plan for the wastewater collection system including inspection, grease control, and private lateral enforcement. The result of the PACE10/Century II initiative has been an 80 percent reduction in SSOs.

As of June 30, 2019, the Wastewater Division had completed its 15th full year under the Consent Decree, spending $545.6 million on capital investments to meet Consent Decree requirements.

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Financial Highlights

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's net position during the year increased $19.5 million compared to a $19.8 million increase last fiscal year. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by $1 million during the fiscal year 2018. The change resulted in a total increase of $20.8 million in the Division's net position.

Operating revenue increased $3.8 million or 4 percent, the result of additional revenue generated during the fiscal year from the rate increase effective July 2018 offset by a one percent decrease in customer billable flows.

Operating expenses increased $5.4 million. Operating and maintenance (O&M) expenditures increased $4.7 million. Depreciation expense rose $0.4 million or 2.1 percent. Taxes and tax equivalents increased $0.3 million or 5.5 percent.

Interest income was $0.7 million higher than the prior fiscal year. Interest expense was consistent with the prior fiscal year. Other income (net) was $0.5 million higher.

Capital contributions increased $0.1 million, the result of an increase in donated assets from developers compared to the previous fiscal year.

Total plant assets (net) increased $33.2 million or 4.6 percent since the end of last fiscal year.

KUB sold $12 million in wastewater system revenue bonds in August 2018 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.49 percent.

Long-term debt represented 61.2 percent of the Division's capital structure as of June 30, 2019, as compared to 62.7 percent last year. The decrease is the net result of the issuance of new revenue bonds and the scheduled repayment of debt during the fiscal year. Capital structure equals long-term debt (which includes the current and long-term portion of revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 1.91. Maximum debt service coverage was 1.90.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's net position during the year increased $19.8 million compared to a $13.3 million increase last fiscal year. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for Other Post-Employment Benefits (OPEB), increased the total net position by $1 million during the fiscal year 2018. The change resulted in a total increase of $20.8 million in the Division's net position.

Operating revenue increased $6.2 million or 7 percent, the result of additional revenue generated during the fiscal year from the rate increase effective July 2017 offset by a 0.2 percent decrease in customer billable flows.

Operating expenses decreased $0.1 million. Operating and maintenance (O&M) expenditures decreased $1 million. Depreciation expense rose $0.6 million or 3.4 percent. Taxes and tax equivalents increased $0.2 million or 5.1 percent.

Interest income was $0.6 million higher than the prior fiscal year. Interest expense was $0.3 million higher than the prior fiscal year. Other income (net) was $0.1 million higher.

Capital contributions decreased $0.2 million, the result of a decrease in donated assets from developers compared to the previous fiscal year.

Total plant assets (net) increased $13.2 million or 1.9 percent since the end of last fiscal year.

KUB sold $25 million in wastewater system revenue bonds in August 2017 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent.

Long-term debt represented 62.7 percent of the Division's capital structure as of June 30, 2018, as compared to 63.7 percent last year. The decrease is the net result of the issuance of new revenue bonds and the scheduled repayment of debt during the fiscal year. Capital structure equals long-term debt (which includes the current and long-term portion of revenue bonds and notes) plus net position.

The Division's bond covenants require a debt service coverage ratio of at least 1.2 times the maximum principal and interest payments over the life of the Division's outstanding bonds. Current year debt coverage for the fiscal year was 1.98. Maximum debt service coverage was 1.95.

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Knoxville Utilities Board Wastewater Division - Financial Statements

The Division's financial performance is reported under three basic financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows.

Statement of Net Position

The Division reports its assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position in the Statement of Net Position. Assets are classified as current, restricted, wastewater plant in service, or other assets.

Liabilities are classified as current, other, or long-term debt. Net position is classified as net investment in capital assets, restricted, or unrestricted. Net position tells the user what the Division has done with its accumulated earnings, not just the balance.

Net investment in capital assets reflects the book value of all capital assets less the outstanding balances of debt used to acquire, construct, or improve those assets.

Restricted net position are assets that have been limited to specific uses by the Division's bond covenants or through resolutions passed by the KUB Board.

Unrestricted net position is a residual classification; the amount remaining after reporting net position is either invested in capital or restricted is reported there.

Statement of Revenues, Expenses and Changes in Net Position

The Division reports its revenues and expenses (both operating and non-operating) on the Statement of Revenues, Expenses and Changes in Net Position. In addition, any capital contributions or assets donated by developers are reported on this statement.

Total revenue less total expense equals the change in net position for the reporting period. Net position at the beginning of the period is increased or decreased, as applicable, by the change in net position for the reporting period.

The change in net position for the reporting period is added to the net position segment of the Statement of Net Position.

Statement of Cash Flows

The Division reports cash flows from operating activities, capital and related financing activities, and investing activities on the Statement of Cash Flows. This statement tells the user the Division's sources and uses of cash during the reporting period.

The statement indicates the Division's beginning cash balance and ending cash balance and how it was either increased or decreased during the reporting period.

The statement also reconciles cash flow to operating income as it appears on the Statement of Revenues, Expenses and Changes in Net Position.

Condensed Financial Statements

Statement of Net Position

The following table reflects the condensed Statement of Net Position for the Wastewater Division compared to the prior two fiscal years.

Statements of Net Position
As of June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Current, restricted and other assets	$ 91,458	$ 106,805	$ 82,060
Capital assets, net	753,174	719,979	706,752
Deferred outflows of resources	19,087	16,112	18,332
Total assets and deferred outflows of resources	863,719	842,896	807,144
Current and other liabilities	28,239	22,404	21,388
Long-term debt outstanding	509,937	512,135	500,207
Deferred inflows of resources	846	3,137	1,159
Total liabilities and deferred inflows of resources	539,022	537,676	522,754
Net position			
Net investment in capital assets	249,592	216,037	216,334
Restricted	3,358	3,159	3,010
Unrestricted	71,747	86,024	65,046
Total net position	$ 324,697	$ 305,220	$ 284,390

Normal Impacts on Statement of Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Net Position presentation.

- Change in net position (from Statement of Revenues, Expenses and Changes in Net Position): impacts (increase/decrease) current and other assets and/or capital assets and unrestricted net position.
- Issuing debt for capital: increases deferred outflows of resources and long-term debt.
- Spending debt proceeds on new capital: reduces current assets and increases capital assets.
- Spending of non-debt related current assets on new capital: (a) reduces current assets and increases capital assets and (b) reduces unrestricted net position and increases net investment in capital assets.
- Principal payment on debt: (a) reduces current and other assets and reduces long-term debt and (b) reduces unrestricted net position and increases net investment in capital assets.
- Reduction of capital assets through depreciation: reduces capital assets and net investment in capital assets.

Impacts and Analysis

Current, Restricted and Other Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Current, restricted and other assets decreased $15.3 million or 14.4 percent, primarily due to a $10.1 million decrease in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments), a decrease in the actuarially determined net pension asset of $4.4 million and a decrease in the actuarially determined net OPEB asset of $0.8 million.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current, restricted and other assets increased $24.7 million or 30.2 percent, primarily due to a $18.3 million increase in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments), an increase in the actuarially determined net pension asset of $4.3 million, an increase in the actuarially determined net OPEB asset of $0.8 million and a $0.6 million increase in accounts receivable.

Capital Assets

Fiscal Year 2019 Compared to Fiscal Year 2018

Capital assets increased $33.2 million or 4.6 percent, the result of capital expenditures, net of depreciation. Major capital expenditures during the year included $42.9 million for major system improvements related to Century II.

Fiscal Year 2018 Compared to Fiscal Year 2017

Capital assets increased $13.2 million or 1.9 percent, the result of capital expenditures, net of depreciation. Major capital expenditures during the year included $26.7 million for major system improvements related to Century II.

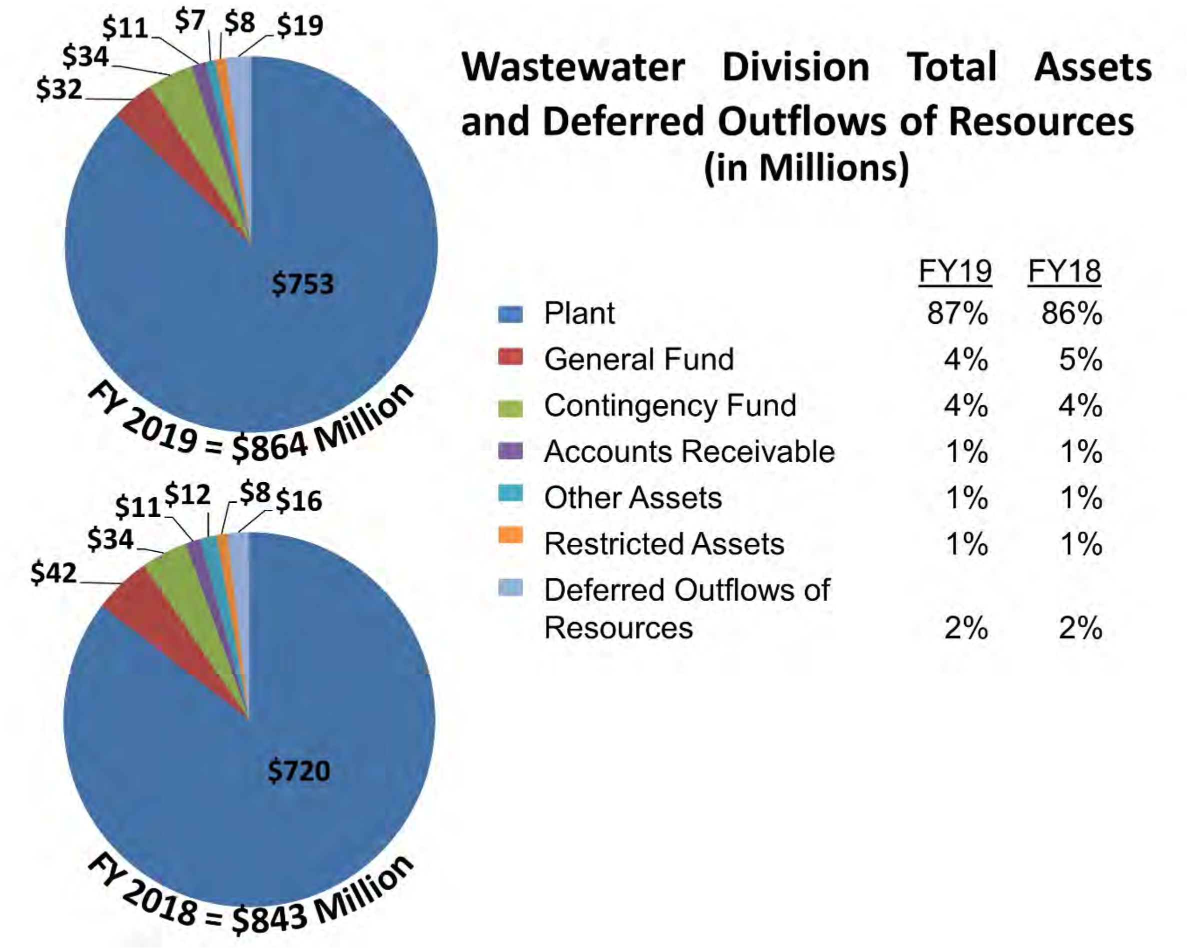
Deferred Outflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred outflows increased $3 million compared to the prior year primarily due to a $3.4 million increase in pension outflow.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred outflows decreased $2.2 million compared to the prior year, reflecting a $1.6 million decrease in pension outflow and a $0.8 million decrease in unamortized bond refunding costs.



Wastewater Division Total Assets and Deferred Outflows of Resources (in Millions)

	FY19	FY18
Plant	87%	86%
General Fund	4%	5%
Contingency Fund	4%	4%
Accounts Receivable	1%	1%
Other Assets	1%	1%
Restricted Assets	1%	1%
Deferred Outflows of Resources	2%	2%

Current and Other Liabilities

Fiscal Year 2019 Compared to Fiscal Year 2018

Current and other liabilities were $5.8 million higher than the prior fiscal year, due to a $2.6 million increase in accounts payable, a $1.5 million increase in net pension liability and a $0.8 million increase in the current portion of revenue bonds.

Fiscal Year 2018 Compared to Fiscal Year 2017

Current and other liabilities were $1 million higher than the prior fiscal year, primarily due to a $0.9 million increase in the current portion of revenue bonds.

Long-Term Debt

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division's outstanding long-term debt decreased $2.2 million or 0.4 percent. Wastewater system revenue bonds of $12 million, sold in August 2018, were offset by the scheduled repayment of debt.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division's outstanding long-term debt increased $11.9 million or 2.4 percent. Wastewater system revenue bonds of $25 million, sold in August 2017, were partially offset by the scheduled repayment of debt.

Deferred Inflows of Resources

Fiscal Year 2019 Compared to Fiscal Year 2018

Deferred inflows of resources were $2.3 million lower than the prior fiscal year due to differences in pension inflows.

Fiscal Year 2018 Compared to Fiscal Year 2017

Deferred inflows of resources were $2 million higher than the prior fiscal year due to differences in pension inflows.

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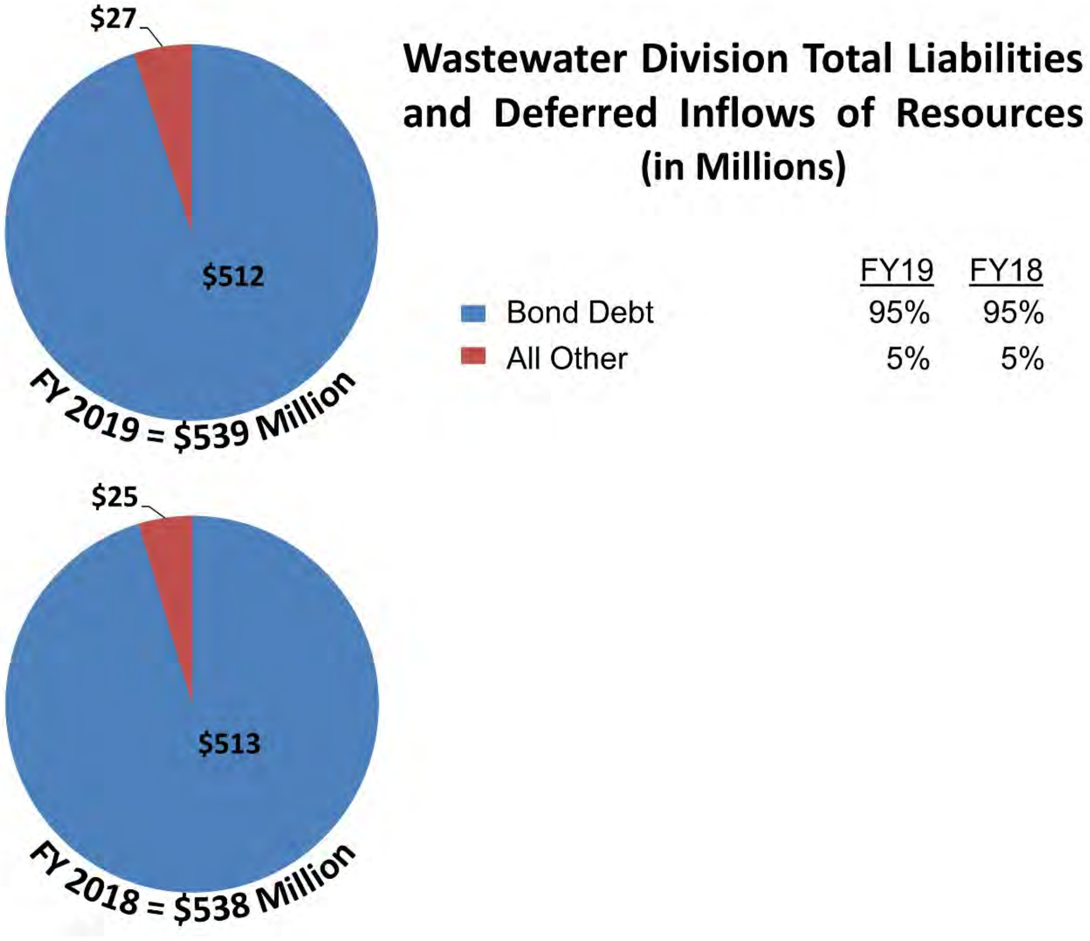

Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

Unrestricted assets decreased $14.3 million, primarily due to the $15.5 million decrease in current and other assets compared to the prior year, which includes a $10.1 million decrease in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments), a decrease in the actuarially determined net pension asset of $4.4 million and a decrease in the actuarially determined net OPEB asset of $0.8 million. Net investment in capital assets increased $33.6 million. The increase was the result of $33.2 million in net plant additions coupled with a decrease in current portion of revenue bonds and total long-term debt of $1.4 million. Restricted net position was $0.2 million higher than the previous fiscal year, primarily due to increases in bond fund reserves.

Fiscal Year 2018 Compared to Fiscal Year 2017

Unrestricted assets increased $21 million, primarily due to the $24.5 million increase in current and other assets compared to the prior year, which includes an increase of $18.3 million in general fund cash. Net investment in capital assets decreased $0.3 million. The decrease was the result of $13.2 million in net plant additions offset by an increase in current portion of revenue bonds and total long-term debt of $13 million. Restricted net position was $0.1 million higher than the previous fiscal year, primarily due to increases in bond fund reserves.

Statement of Revenues, Expenses and Changes in Net Position

The following table reflects the condensed Statement of Revenues, Expenses and Changes in Net Position for the Wastewater Division compared to the prior two fiscal years.

Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30

(in thousands of dollars)	**2019**	**2018**	**2017**
Operating revenues	$ 98,482	$ 94,716	$ 88,517
Operating expenses			
Treatment	12,444	11,675	11,914
Collection	8,130	7,411	7,686
Customer service	3,776	3,106	3,073
Administrative and general	11,303	8,747	9,257
Depreciation	19,545	19,138	18,517
Taxes and tax equivalents	5,318	5,039	4,796
Total operating expenses	60,516	55,116	55,243
Operating income	37,966	39,600	33,274
Interest income	1,906	1,205	642
Interest expense	(20,521)	(20,508)	(20,233)
Other income/(expense)	(263)	(740)	(872)
Change in net position before capital contributions	19,088	19,557	12,811
Capital contributions	389	278	464
Change in net position	$ 19,477	$ 19,835	$ 13,275

Normal Impacts on Statement of Revenues, Expenses and Changes in Net Position

The following is a description of activities which will normally impact the comparability of the Statement of Revenues, Expenses and Changes in Net Position presentation.

- Operating revenue is primarily determined by the amount of water usage billed during the fiscal year. KUB has certain commercial and industrial customers whose wastewater usage is metered separately from their water usage. Any change (increase/decrease) in wastewater rates would also cause a change in operating revenue.

- Operating expenses (treatment, collection system expense, customer service, administrative and general) are normally impacted by changes in areas including, but not limited to, labor cost (staffing, wage rates), active employee and retiree health insurance costs, chemicals, and wastewater system maintenance.

- Depreciation expense is impacted by plant additions and retirements during the fiscal year.

- Taxes and tax equivalents are impacted by plant additions/retirements and changes in property tax rates.

- Interest income is impacted by the level of interest rates and investments.

- Interest expense is impacted by the level of outstanding debt and interest rates on the outstanding debt.

- Other income/(expense) is impacted by miscellaneous non-operating revenues and expenses.

- Capital contributions are impacted by a donation of facilities/infrastructure to KUB by developers and governmental agencies. The contributions are recognized as revenue and recorded as plant in service based on the fair market value of the asset(s).

Impacts and Analysis

Change in Net Position

Fiscal Year 2019 Compared to Fiscal Year 2018

The Division’s Change in Net Position increased $19.5 million in fiscal year 2019. Comparatively, net position increased by $19.8 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $1 million. The change resulted in a total increase of $20.8 million in the Division’s net position.

Fiscal Year 2018 Compared to Fiscal Year 2017

The Division’s Change in Net Position increased $19.8 million in fiscal year 2018. A restatement to the fiscal year 2018 beginning net position, based on a change in method of accounting for OPEB, increased the total net position by an additional $1 million. The change resulted in a total increase of $20.8 million in the Division’s net position. Comparatively, net position increased by $13.3 million in fiscal year 2017.

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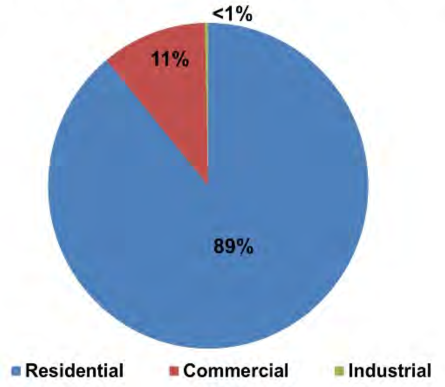
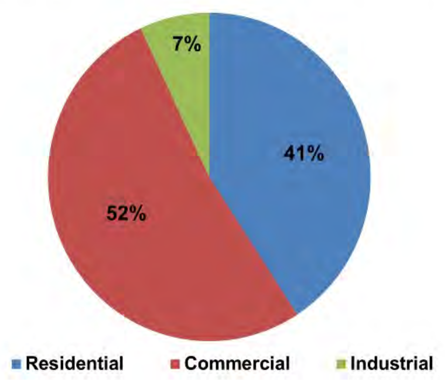
Margin from Sales

Fiscal Year 2019 Compared to Fiscal Year 2018

Operating revenue increased $3.8 million or 4 percent for the fiscal year ending June 30, 2019, the result of additional revenue generated during the fiscal year from the July 2018 rate increase, offset by a one percent decrease in billable customer flows. Rebates on bond interest payments from the federal government for federally taxable Build America Bonds (BABs) are reported as revenue in accordance with GASB. KUB recognized $1.8 million in revenue for BABs rebates in fiscal year 2019.



FY 2019 Total Wastewater Customers = 71,807



FY 2019 Wastewater Sales = 6.4 Billion Gallons

Residential customers accounted for 89 percent of wastewater customers and 41 percent of total billed sales volumes for the year. Commercial customers accounted for the largest portion of total sales volumes for the year with 52 percent.

KUB's ten largest wastewater customers accounted for 19 percent of KUB's billed wastewater volumes. Those ten customers represent four industrial and six commercial customers, including four governmental customers.

KUB has added 1,542 wastewater customers over the past three years, representing annual growth of less than one percent.

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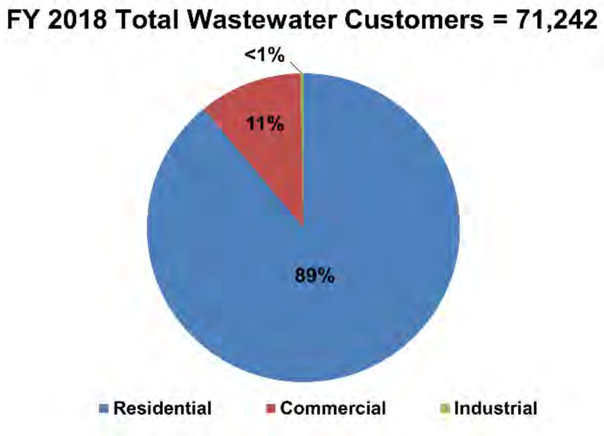
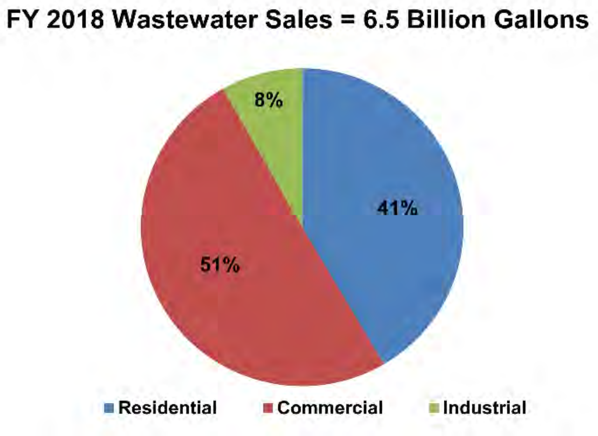
Fiscal Year 2018 Compared to Fiscal Year 2017

Operating revenue increased $6.2 million or 7 percent for the fiscal year ending June 30, 2018, the result of additional revenue generated during the fiscal year from the July 2017 rate increase, offset by a 0.2 percent decrease in billable customer flows. Rebates on bond interest payments from the federal government for federally taxable Build America Bonds (BABs) are reported as revenue in accordance with GASB. KUB recognized $1.8 million in revenue for BABs rebates in fiscal year 2018.


FY 2018 Total Wastewater Customers = 71,242


FY 2018 Wastewater Sales = 6.5 Billion Gallons

Residential customers accounted for 89 percent of wastewater customers and 41 percent of total billed sales volumes for the year. Commercial customers accounted for the largest portion of total sales volumes for the year with 51 percent.

KUB’s ten largest wastewater customers accounted for 19 percent of KUB’s billed wastewater volumes. Those ten customers represent five industrial and five commercial customers, including four governmental customers.

KUB has added 1,395 wastewater customers over the past three years, representing annual growth of less than one percent.

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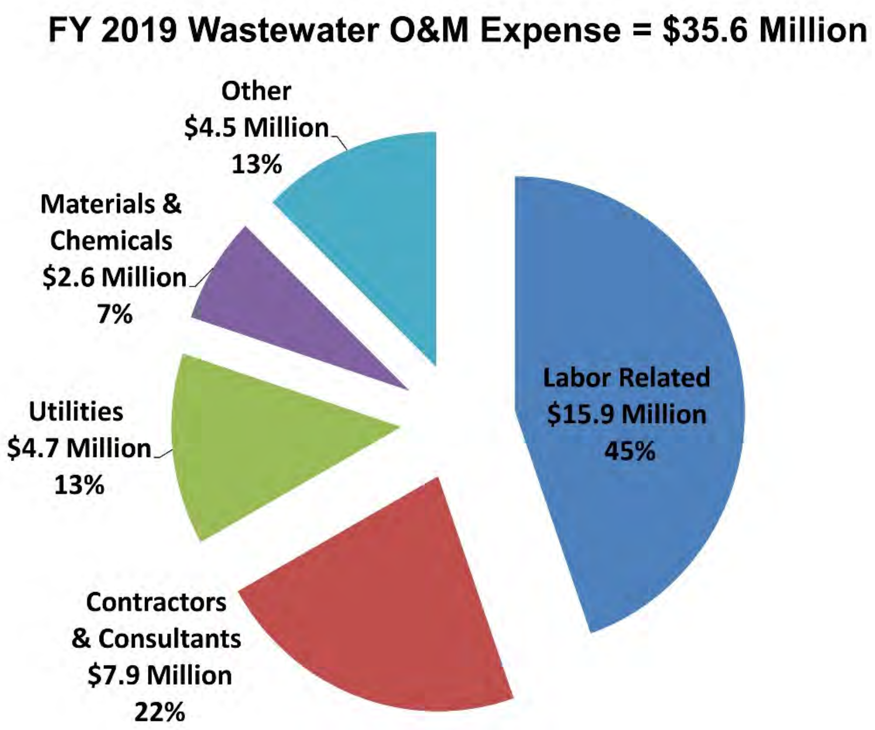
Operating Expenses

Fiscal Year 2019 Compared to Fiscal Year 2018

Operating expenses increased $5.4 million compared to fiscal year 2018. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as treatment, collection, customer service, and administrative and general.

- Treatment expenses increased $0.8 million, primarily due to higher outside consultant and contractor expenses.
- Collection system expenses increased $0.7 million, reflecting higher outside contractor expenses for Century II initiatives and increased labor related expenses.
- Customer service expenses increased $0.7 million, primarily due to increased meter sharing expenses.
- Administrative and general expenses increased $2.5 million, primarily due to an increase in labor related expenses including higher pension expenses, reflecting impact of investment losses on Pension Trust assets in 2018.



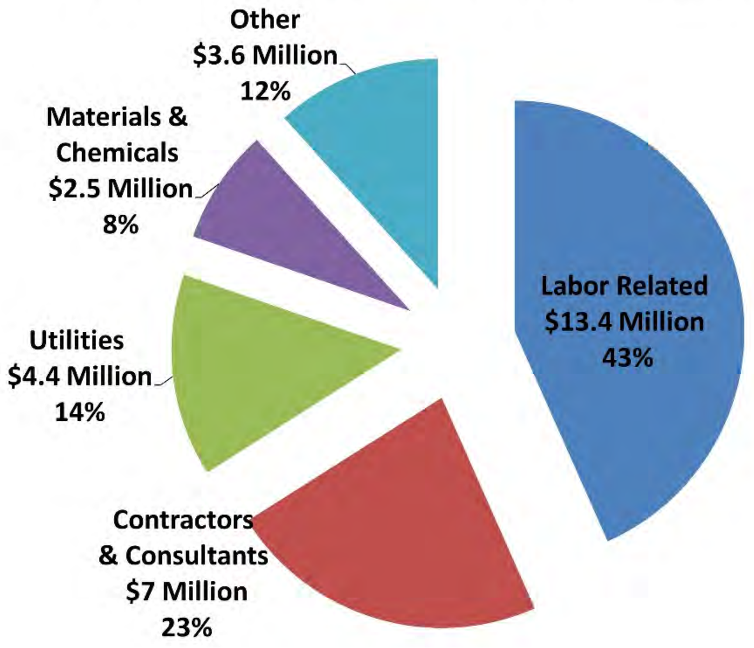
- Depreciation expense increased $0.4 million or 2.1 percent, the result of a full year of depreciation on $29.5 million of wastewater system assets placed in service during fiscal year 2018 and a partial year of depreciation of $29.6 million of wastewater system assets placed in service during fiscal year 2019. Wastewater system assets of $5.3 million were retired during the fiscal year.
- Taxes and tax equivalents increased $0.3 million compared to the prior fiscal year due to increased plant in service levels.

Fiscal Year 2018 Compared to Fiscal Year 2017

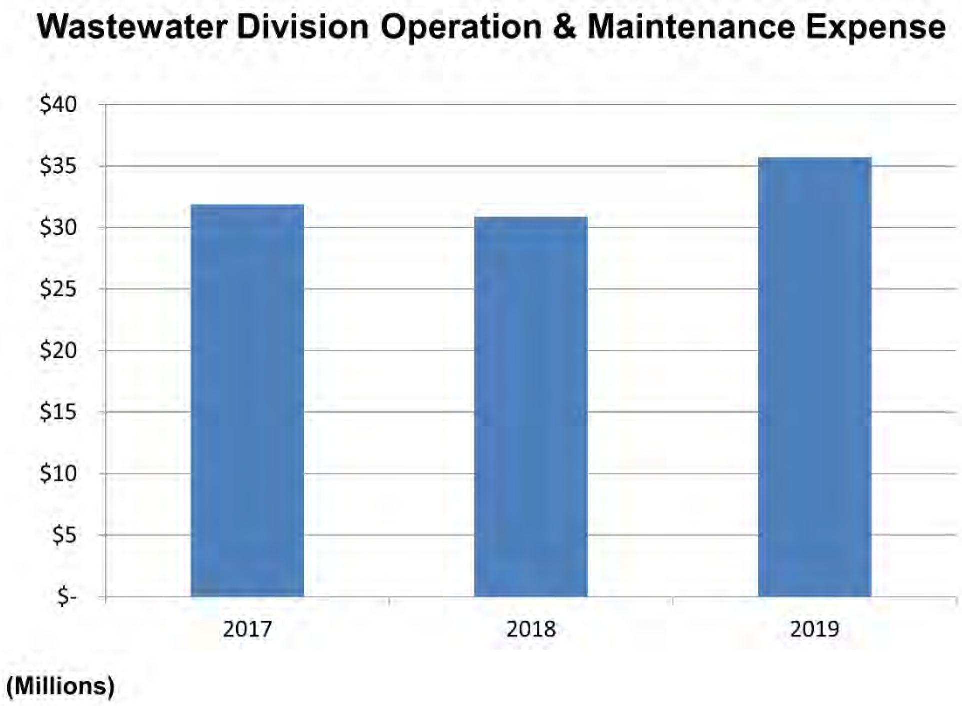
Operating expenses decreased $0.1 million compared to fiscal year 2017. Operating expenses include operations and maintenance (O&M) expense, depreciation, and taxes/tax equivalents. O&M expenses can be further classified as treatment, collection, customer service, and administrative and general.

- Treatment expenses decreased $0.2 million, primarily due to lower outside consultant and contractor expenses.
- Collection system expenses decreased $0.3 million, reflecting lower outside contractor expenses for Century II initiatives.
- Customer service expenses were consistent with the prior fiscal year.
- Administrative and general expenses decreased $0.5 million, primarily due to a decrease in labor related expenses.

FY 2018 Wastewater O&M Expense = $30.9 Million



- Depreciation expense increased $0.6 million or 3.4 percent, the result of a full year of depreciation on $51.7 million of wastewater system assets placed in service during fiscal year 2017 and a partial year of depreciation of $29.5 million of wastewater system assets placed in service during fiscal year 2018. Wastewater system assets of $5.6 million were retired during the fiscal year.
- Taxes and tax equivalents increased $0.2 million compared to the prior fiscal year due to increased plant in service levels.



Other Income and Expense

Fiscal Year 2019 Compared to Fiscal Year 2018

Interest income was $0.7 million higher than the prior fiscal year primarily due to higher short-term interest rates.

Interest expense was consistent with the prior fiscal year, reflecting the net effect of interest expense from new revenue bonds sold during the fiscal year and debt retired during the year.

Other income (net) was $0.5 million higher than the prior fiscal year, primarily due to mark-to-market adjustments on investments.

Capital contributions increased $0.1 million compared to last fiscal year as a result of an increase in assets received from developers and other governmental entities.

Fiscal Year 2018 Compared to Fiscal Year 2017

Interest income was $0.6 million higher than the prior fiscal year primarily due to higher short-term interest rates.

Interest expense was $0.3 million higher than the prior fiscal year, reflecting the net effect of interest expense from new revenue bonds sold during the fiscal year and savings on refunding of outstanding bonds.

Other income (net) was $0.1 million higher than the prior fiscal year.

Capital contributions decreased $0.2 million compared to last fiscal year as a result of a decrease in assets received from developers and other governmental entities.

Capital Assets

Capital Assets
As of June 30
(Net of Depreciation)

(in thousands of dollars)	2019	2018	2017
Pumping & Treatment Plant	$ 156,202	$ 152,026	$ 148,916
Collection Plant			
Mains and Metering	461,419	454,420	445,740
Other Accounts	65,898	67,355	68,745
Total Collection Plant	527,317	521,775	514,485
Total General Plant	7,809	8,217	8,660
Total Wastewater Plant	$ 691,328	$ 682,018	$ 672,061
Work In Progress	61,846	37,961	34,691
Total Net Plant	$ 753,174	$ 719,979	$ 706,752

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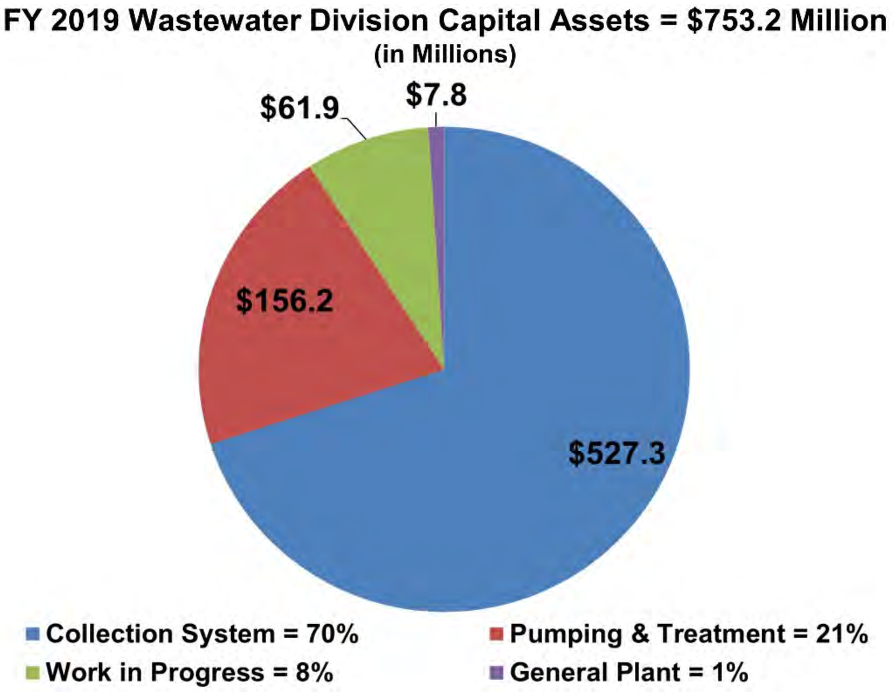
Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $753.2 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $33.2 million or 4.6 percent over the end of the last fiscal year.



Major capital asset expenditures during the year were as follows:

- $42.9 million related to Century II projects
    - $19.1 million for wastewater treatment plant upgrades
    - $8.6 million for sewer mini-basin rehabilitation and replacement
    - $5.2 million for pump station construction and improvements
    - $4.1 million for sewer trunk line rehabilitation and replacement
    - $3.1 million for rehabilitation projects
    - $2.8 million for short line projects

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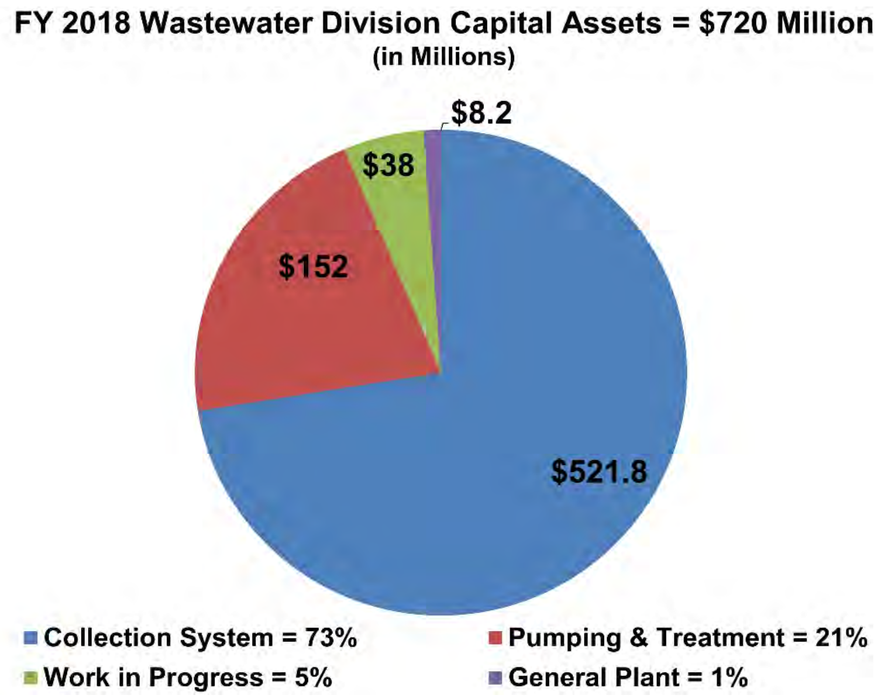
Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $720 million invested in a variety of capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of $13.2 million or 1.9 percent over the end of the last fiscal year.



Major capital asset expenditures during the year were as follows:

- $26.7 million related to Century II projects
    - $12.9 million for wastewater treatment plant upgrades
    - $7.2 million for sewer mini-basin rehabilitation and replacement
    - $4.9 million for sewer trunk line rehabilitation and replacement
    - $1.7 million for pump station construction and improvements

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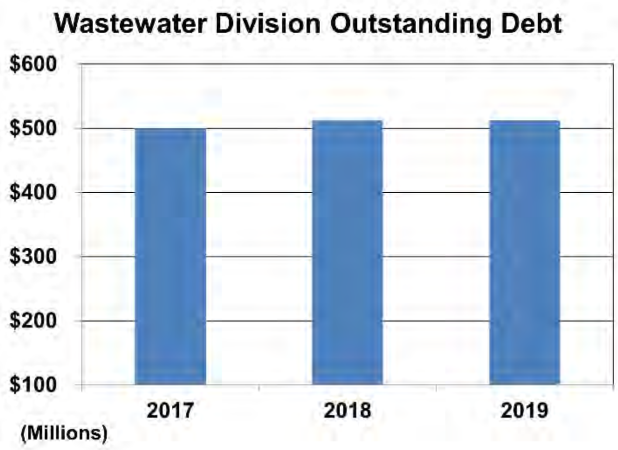
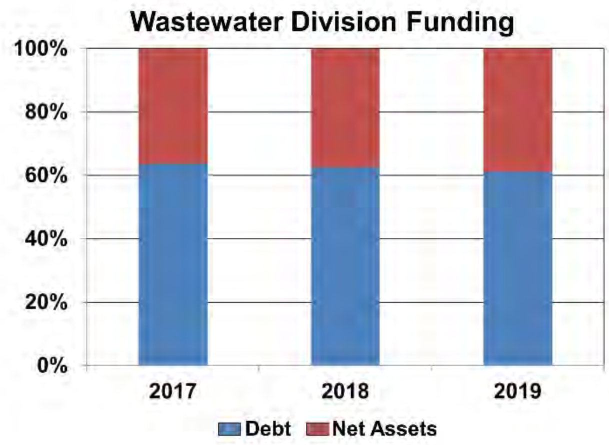
Debt Administration

As of June 30, 2019, the Wastewater Division had $512 million in outstanding wastewater system bonds. The Division's outstanding debt has remained at a steady level over the past three years, reflecting new bond issues and scheduled repayment of revenue bonds. Bond proceeds from new revenue bond sales are used to fund capital improvements for the wastewater system. The bonds are secured solely by revenues of the Wastewater Division. Debt as a percentage of the Division's capital structure was 61.2 percent in 2019, 62.7 percent in 2018, and 63.7 percent at the end of fiscal year 2017. KUB's Debt Management Policy limits the Division's debt ratio to 70 percent or less.

Outstanding Debt
As of June 30

(in thousands of dollars)	2019	2018	2017
Revenue bonds	$ 511,995	$ 512,890	$ 499,850
Total outstanding debt	$ 511,995	$ 512,890	$ 499,850





The Division will pay $153.4 million in principal payments over the next ten years, representing 30 percent of the outstanding bonds. KUB's Debt Management Policy requires a minimum of 20 percent of wastewater debt principal be repaid over the next ten years.

Fiscal Year 2019 Compared to Fiscal Year 2018

As of June 30, 2019, the Division had $512 million in outstanding debt (including the current portion of revenue bonds), representing a decrease of $0.9 million. The decrease is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division's weighted average cost of debt as of June 30, 2019 was 3.95 percent (3.61 percent including the impact of Build America Bonds rebates).

KUB sold $12 million in wastewater system revenue bonds in August 2018 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.49 percent.

The Division’s outstanding debt is rated by Standard & Poor’s and Moody’s Investors Service. As of June 30, 2019, the Division’s revenue bonds were rated AA+ by Standard & Poor’s and Aa2 by Moody’s Investors Service.

Fiscal Year 2018 Compared to Fiscal Year 2017

As of June 30, 2018, the Division had $512.9 million in outstanding debt (including the current portion of revenue bonds), representing an increase of $13 million or 2.6 percent. The increase is attributable to new revenue bonds issued during the fiscal year offset by the scheduled repayment of debt. The Division’s weighted average cost of debt as of June 30, 2018 was 3.96 percent (3.61 percent including the impact of Build America Bonds rebates).

KUB sold $25 million in wastewater system revenue bonds in August 2017 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent.

The Division’s outstanding debt is rated by Standard & Poor’s and Moody’s Investors Service. As of June 30, 2018, the Division’s revenue bonds were rated AA+ by Standard & Poor’s and Aa2 by Moody’s Investors Service.

Impacts on Future Financial Position

KUB anticipates adding 550 wastewater customers in fiscal year 2020.

In June 2017, the KUB Board adopted three years of rate increases for all four utility Divisions to help fund the ongoing Century II infrastructure programs for each system. The remaining approved wastewater rate increase is effective July 2019 and is expected to provide an additional $4.5 million in annual revenue to assist with the funding of the Wastewater Division.

KUB sold $16 million in wastewater system revenue bonds in July 2019 for the purpose of funding wastewater system capital improvements. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent.

KUB long-term debt includes $90.1 million of Wastewater Division 2010 Build America Bonds (BABs). The BABs were sold on a taxable basis with the United States Treasury providing a rebate to KUB for a percentage of the interest cost. The interest rebates were subject to federal sequestration during the fiscal year and were reduced by 6.2 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

The Pension Plan actuarial valuation for the Plan year ending December 31, 2018 resulted in an actuarially determined contribution of 2,585,824 for the fiscal year ending June 30, 2020, based on the Plan’s current funding policy. The Wastewater Division’s portion of this contribution is $568,881. Subsequent to June 30, 2019, the actuarial valuation for the Plan year ending December 31, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $3,167,680 for the fiscal year ending June 30, 2021, based on the Plan’s current funding policy. The Wastewater Division’s portion of this contribution is $696,890. For the Plan year ending December 31, 2019, the Plan’s actuarial funded ratio was 104.68 percent.

The OPEB Plan actuarial valuation as of January 1, 2018 resulted in an actuarially determined contribution of $311,324 for the fiscal year ending June 30, 2020, based on the Plan’s current funding policy. The Wastewater Division’s portion of this contribution is $68,491. Subsequent to June 30, 2019, the actuarial valuation as of January 1, 2019 was completed. The actuarial valuation resulted in an actuarially determined contribution of $757,226 for the fiscal year ending June 30, 2021, based on the Plan’s current funding policy. The Wastewater Division's portion of this contribution is $166,590. The Plan's actuarial funded ratio was 86.3 percent.

GASB Statement No. 84, *Fiduciary Activities*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 87, *Leases*, is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period,* is effective for fiscal years beginning after December 15, 2019. GASB Statement No. 90, *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61*, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 91, *Conduit Debt Obligations*, is effective for fiscal years beginning after December 15, 2020. KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

No other facts, decisions, or conditions are currently known which would have a significant impact on the Division's financial position or results of operations during fiscal year 2019.

Financial Contact

The Division's financial statements are designed to present users (citizens, customers, investors, and creditors) with a general overview of the Division's financial position and results of operations for the fiscal years ending June 30, 2019 and 2018. If you have questions about the statements or need additional financial information, contact KUB's Chief Financial Officer at 445 South Gay Street, Knoxville, Tennessee 37902.

Knoxville Utilities Board Wastewater Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Assets and Deferred Outflows of Resources		
Current assets:		
Cash and cash equivalents	$ 22,233,080	$ 42,297,513
Short-term investments	9,986,525	-
Short-term contingency fund investments	23,985,414	11,101,917
Other current assets	77	524,169
Accrued interest receivable	50,679	34,729
Accounts receivable, less allowance of uncollectible accounts of $85,638 in 2019 and $86,556 in 2018	10,524,014	10,576,375
Inventories	478,665	523,984
Prepaid expenses	74,463	72,469
Total current assets	67,332,917	65,131,156
Restricted assets:		
Wastewater bond fund	8,401,415	8,232,210
Other funds	4,226	4,718
Total restricted assets	8,405,641	8,236,928
Wastewater plant in service	901,321,001	877,008,227
Less accumulated depreciation	(209,993,338)	(194,989,639)
	691,327,663	682,018,588
Retirement in progress	432,146	426,420
Construction in progress	61,414,303	37,534,482
Net plant in service	753,174,112	719,979,490
Other assets:		
Net pension asset	-	4,351,242
Net OPEB asset	-	825,235
Long-term contingency fund investments	10,368,446	22,914,748
Other	5,350,666	5,346,014
Total other assets	15,719,112	33,437,239
Total assets	844,631,782	826,784,813
Deferred outflows of resources:		
Pension outflow	3,795,580	428,530
OPEB outflow	548,500	145,724
Unamortized bond refunding costs	14,742,812	15,537,275
Total deferred outflows of resources	19,086,892	16,111,529
Total assets and deferred outflows of resources	$ 863,718,674	$ 842,896,342

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Wastewater Division
Statements of Net Position
June 30, 2019 and 2018

	2019	2018
Liabilities, Deferred Inflows, and Net Position		
Current liabilities:		
Current portion of revenue bonds	$ 13,415,000	$ 12,615,000
Accounts payable	4,146,636	1,566,588
Accrued expenses	911,466	813,958
Customer deposits plus accrued interest	893,158	849,208
Accrued interest on revenue bonds	5,047,565	5,078,360
Total current liabilities	24,413,825	20,923,114
Other liabilities:		
Accrued compensated absences	1,662,272	1,348,345
Customer advances for construction	253,025	4,600
Net pension liability	1,513,961	61,675
Net OPEB liability	318,503	-
Other	77,920	66,723
Total other liabilities	3,825,681	1,481,343
Long-term debt:		
Wastewater revenue bonds	498,580,000	500,275,000
Unamortized premiums/discounts	11,356,966	11,860,393
Total long-term debt	509,936,966	512,135,393
Total liabilities	538,176,472	534,539,850
Deferred inflows of resources:		
Pension inflow	845,544	3,066,215
OPEB inflow	-	70,760
Total deferred inflows of resources	845,544	3,136,975
Total liabilities and deferred inflows of resources	539,022,016	537,676,825
Net position		
Net investment in capital assets	249,592,233	216,036,743
Restricted for:		
Debt service	3,353,850	3,153,850
Other	4,226	4,718
Unrestricted	71,746,349	86,024,206
Total net position	324,696,658	305,219,517
Total liabilities, deferred inflows, and net position	$ 863,718,674	$ 842,896,342

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Wastewater Division
Statements of Revenues, Expenses and Changes in Net Position
Years Ended June 30, 2019 and 2018

	2019	2018
Operating revenues	$ 98,482,153	$ 94,715,764
Operating expenses		
Treatment	12,444,333	11,674,833
Collection	8,130,072	7,410,791
Customer service	3,775,848	3,106,304
Administrative and general	11,302,892	8,747,272
Provision for depreciation	19,545,435	19,137,860
Taxes and tax equivalents	5,317,546	5,038,630
Total operating expenses	60,516,126	55,115,690
Operating income	37,966,027	39,600,074
Non-operating revenues (expenses)		
Contributions in aid of construction	395,167	2,237,910
Interest and dividend income	1,906,274	1,205,290
Interest expense	(20,521,206)	(20,508,567)
Amortization of debt costs	(423,986)	(368,685)
Write-down of plant for costs recovered through contributions	(395,167)	(2,237,910)
Other	160,930	(371,824)
Total non-operating revenues (expenses)	(18,877,988)	(20,043,786)
Change in net position before capital contributions	19,088,039	19,556,288
Capital contributions	389,102	278,222
Change in net position	19,477,141	19,834,510
Net position, beginning of year, as previously reported	305,219,517	284,390,014
Change in method of accounting for OPEB	-	994,993
Net position, beginning of year, as restated	305,219,517	285,385,007
Net position, end of year	$ 324,696,658	$ 305,219,517

The accompanying notes are an integral part of these financial statements.

Knoxville Utilities Board Wastewater Division
Statements of Cash Flows
Years Ended June 30, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Cash receipts from customers	$ 95,996,952	$ 92,107,107
Cash receipts from other operations	1,833,578	1,757,517
Cash payments to suppliers of goods or services	(20,360,518)	(20,810,035)
Cash payments to employees for services	(10,612,319)	(11,119,039)
Payment in lieu of taxes	(4,429,170)	(4,218,257)
Net cash provided by operating activities	62,428,523	57,717,293
Cash flows from capital and related financing activities:		
Net proceeds from bond issuance	11,861,721	25,111,895
Principal paid on revenue bonds and notes payable	(12,895,000)	(11,960,000)
Interest paid on revenue bonds and notes payable	(20,552,001)	(20,412,447)
Acquisition and construction of wastewater plant	(53,114,092)	(34,629,295)
Changes in wastewater bond fund, restricted	(169,205)	(322,370)
Customer advances for construction	248,425	4,600
Proceeds received on disposal of plant	4,497	1,762
Cash received from developers and individuals for capital purposes	395,167	2,237,910
Net cash used in capital and related financing activities	(74,220,488)	(39,967,945)
Cash flows from investing activities:		
Purchase of investment securities	(21,055,487)	(15,048,777)
Maturities of investment securities	11,143,470	19,572,141
Interest received	1,859,095	1,171,280
Other property and investments	(219,546)	(120,339)
Net cash (used in) provided by investing activities	(8,272,468)	5,574,305
Net (decrease) increase in cash and cash equivalents	(20,064,433)	23,323,653
Cash and cash equivalents, beginning of year	42,297,513	18,973,860
Cash and cash equivalents, end of year	$ 22,233,080	$ 42,297,513
Reconciliation of operating income to net cash provided by operating activities		
Operating income	$ 37,966,027	$ 39,600,074
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	19,908,909	19,440,304
Changes in operating assets and liabilities:		
Accounts receivable	52,361	(642,611)
Inventories	45,319	(187,839)
Prepaid expenses	(1,994)	6,234
Other assets	525,262	240,335
Accounts payable and accrued expenses	3,877,492	(795,127)
Customer deposits plus accrued interest	43,950	29,281
Other liabilities	11,197	26,642
Net cash provided by operating activities	$ 62,428,523	$ 57,717,293
Noncash capital activities:		
Acquisition of plant assets through developer contributions	$ 389,102	$ 278,222

The accompanying notes are an integral part of these financial statements.

1. Description of Business

Knoxville Utilities Board (KUB), comprised of the Electric Division, Gas Division, Water Division, and Wastewater Division (Divisions), is reported as a component unit enterprise fund in the financial statements of the City of Knoxville. KUB's responsibility is to oversee the purchase, production, distribution, and processing of electricity, natural gas, water, and wastewater services. A seven-member Board of Commissioners (Board) governs KUB. The Board has all powers to construct, acquire, expand, and operate the Divisions. It has full control and complete jurisdiction over the management and operation of the Divisions including setting rates. The Wastewater Division (Division) provides services to certain customers in Knox County and in two surrounding counties in East Tennessee. The Division's accounts are maintained in conformity with the Uniform System of Accounts of the National Association of Regulatory Utility Commissioners (NARUC) and the Governmental Accounting Standards Board (GASB), as applicable. The financial statements present only the Wastewater Division and do not purport to, and do not, present fairly the consolidated financial position of Knoxville Utilities Board at June 30, 2019 and 2018, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

2. Significant Accounting Policies

Basis of Accounting

In conformity with Generally Accepted Accounting Principles (GAAP), KUB follows the provisions of GASB Statement No. 34 (Statement No. 34), *Financial Statements* – *and Management's Discussion and Analysis* – *for State and Local Governments* as amended by GASB Statement No. 63 (Statement No. 63), *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position.* Statement No. 34 established standards for external financial reporting for all state and local governmental entities. Under Statement No. 63, financial statements include deferred outflows of resources and deferred inflows of resources, in addition to assets and liabilities, and report *net position* instead of net assets. In addition, KUB follows GASB Statement No. 62 (Statement No. 62), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* as it relates to certain items for regulatory accounting. Regulatory accounting allows a regulated utility to defer a cost (a regulatory asset) or recognize an obligation (a regulatory liability) if it is probable that through the rate making process, there will be a corresponding increase or decrease in future revenues. Accordingly, KUB has recognized certain regulatory assets and regulatory liabilities in the accompanying Statements of Net Position.

The financial statements are prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred. The accounting and financial reporting treatment applied to the Division is determined by measurement focus. The transactions of the Division are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the Statement of Net Position. Net position (i.e., total assets and deferred outflows of resources net of total liabilities and deferred inflows of resources) is segregated into net investment in capital assets, restricted for capital activity and debt service, and unrestricted components.

Recently Adopted New Accounting Pronouncements

In November 2016, the GASB issued GASB Statement No. 83 (Statement No. 83), *Certain Asset Retirement Obligations*. The objective of this Statement is to define asset retirement obligations as a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations is required to perform future asset retirement activities related to its tangible capital assets to recognize a liability based on the guidance in this Statement. Statement No. 83 is effective for fiscal years beginning after June 15, 2018.

In April 2018, the GASB issued GASB Statement No. 88 (Statement No. 88), *Certain Disclosure Related to Debt, Including Direct Borrowings and Direct Placements.* The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowing and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Statement No. 88 is effective for fiscal years beginning after June 15, 2018.

Wastewater Plant

Wastewater plant and other property are stated on the basis of original cost. The cost of current repairs and minor replacements is charged to operating expense. The cost of renewals and improvements is capitalized. The original cost of utility plant assets retired or otherwise disposed of and the cost of removal less salvage value is charged to accumulated depreciation. When other property is retired, the related asset and accumulated depreciation are removed from the accounts, and the gain or loss is included in the results of operations.

The provision for depreciation of wastewater plant in service is based on the estimated useful lives of the assets, which range from three to fifty years, and is computed using the straight-line method. Pursuant to NARUC, the caption "Provision for depreciation" in the Statements of Revenue, Expenses and Change in Net Position does not include depreciation for transportation equipment of $363,474 in fiscal year 2019 and $302,444 in fiscal year 2018. Under regulatory accounting, interest costs are expensed as incurred with construction of plant assets.

Operating Revenue

Operating revenue consists primarily of charges for services provided by the principal operations of the KUB Wastewater Division. Operating revenue is recorded when the service is rendered, on a cycle basis, and includes an estimate of unbilled revenue. Revenues are reported net of bad debt expense of $237,904 in fiscal year 2019 and $297,270 in fiscal year 2018.

Non-operating Revenue

Non-operating revenue consists of revenues that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities.

Expense

When an expense is incurred for purposes for which there are both restricted and unrestricted net assets available, it is KUB’s policy to apply those expenses to restricted net assets to the extent such are available and then to unrestricted net assets.

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; net position-restricted; and net position-unrestricted.

These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt also should be included in this component of net position. If there are significant unspent related debt proceeds at year end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

- Net position-restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.

- Net position-unrestricted – This component of net position consists of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Contributions in Aid of Construction and Capital Contributions

Contributions in aid of construction are cash collections from customers or others for a particular purpose, generally the construction of new facilities to serve new customers in excess of the investment KUB is willing to make for a particular incremental revenue source. KUB reduces the plant account balances to which contributions relate by the actual amount of the contribution and recognizes the contributions as non-operating revenue in accordance with Statement No. 62.

Capital contributions represent contributions of utility plant infrastructure constructed by developers and others in industrial parks and other developments, and transferred to KUB upon completion of construction and the initiation of utility service. In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, such contributions are recognized as revenues and capital assets upon receipt.

Inventories

Inventories, consisting of plant materials and operating supplies, are valued at the lower of average cost or replacement value.

Change in Method of Accounting for OPEB

In June 2015, the Governmental Accounting Standards Board (GASB) issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses reporting by governments that provide OPEB to their employees. This standard was adopted by KUB in 2018 and resulted in a restatement of beginning net position of $4,522,695 (Division's share $994,993) to increase the net OPEB asset by $4,522,695 (Division's share $994,993) based on revised actuarial assumptions to conform with GASB 75.

OPEB Plan

KUB's employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and were enrolled in medical coverage on their last day are eligible for post-employment health care. KUB's OPEB Trust was established by KUB's Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. KUB's policy is to fully fund the annual actuarially determined contributions, which are determined by actuarial valuation. As required by GASB Statement No. 75, KUB measures net OPEB liability as total OPEB liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a June 30, 2019 and 2018 measurement date, respectively. The net OPEB liability is $1,447,742 (Division's share $318,503) as of June 30, 2019 and the net OPEB asset is $3,751,068 (Division's share $825,235) as of June 30, 2018.

Pension Plan and Qualified Excess Benefit Arrangement

KUB's employees are participants in the Knoxville Utilities Board Pension Plan as authorized by the Charter of the City of Knoxville §1107(J) (Note 10). KUB's policy is to fully fund the annual actuarially determined contributions. As required by GASB Statement No. 68, KUB measures net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on a December 31, 2018 and 2017 measurement date, respectively. The net pension liability is $6,649,756 (Division's share $1,462,946) as of June 30, 2019, and the net pension asset is $19,778,372 (Division's share $4,351,242) as of June 30, 2018.

KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB (Note 11). As required by GASB Statement No. 73, KUB measures the total pension liability of the QEBA. The amounts reported as of June 30, 2019 and 2018 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 are based on the December 31, 2018 and 2017 measurement dates. The total pension liability of the QEBA is $231,883 (Division's share $51,015) as of June 30, 2019 and $280,341 (Division's share $61,675) as of June 30, 2018.

Investments

Investments are carried at fair value as determined by quoted market prices at the reporting date.

Self-Insurance

KUB has established self-insurance programs covering portions of workers' compensation, employee health, environmental liability, general liability, property and casualty liability, and automobile liability claims. A liability is accrued for claims as they are incurred. When applicable, claims in excess of the self-insured risk are covered by KUB's insurance carrier. Additionally, KUB provides certain lifetime health benefits to eligible retired employees under a self-insurance plan administered by a third party.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on historical experience and various other assumptions that KUB believes are reasonable under the circumstances. However, future events are subject to change and the best estimates and judgments routinely require adjustment. Estimates are used for, but not limited to, inventory valuation, allowance for uncollectible accounts, depreciable lives of plant assets, unbilled revenue volumes, pension trust valuations, OPEB trust valuations, insurance liability reserves, and potential losses from contingencies and litigation. Actual results could differ from those estimates.

Restricted and Designated Assets

Certain assets are restricted by bond resolutions for utility plant construction and debt repayment. Certain additional assets are designated by management for contingency purposes and economic development.

Cash Equivalents

For purposes of the Statements of Cash Flows, KUB considers all unrestricted and undesignated highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. Deferred inflows of resources are items related to the acquisition of assets or related debt which are amortized over the life of the asset or debt. KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Deferred outflows of resources also include employer pension contributions made subsequent to the measurement date of the net pension liability and before the end of the employer's reporting period in accordance with Statement No. 71. Deferred inflows and deferred outflows also include the net difference between projected and actual earnings on pension plan investments and OPEB plan investments, differences between expected and actual experience, and changes in assumptions in accordance with Statements No. 68, 73 and 75.

Debt Premium/Discount

KUB records unamortized premium and discount on debt as a separate line item in the Long Term Debt section of the Financial Statements. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Debt Issuance Costs

In accordance with regulatory accounting, KUB records debt issuance costs as an Other Asset. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Deferred Gain/Loss on Refunding of Debt

KUB records costs associated with the gain or loss on refunding of debt as either a deferred outflow or inflow based on the parameters of Statement No. 65. Amortization of these amounts is recorded over the life of the applicable debt as amortization expense.

Compensated Absences

KUB accrues a liability for earned but unpaid paid-time off (PTO) days.

Subsequent Events

KUB has evaluated events and transactions through October 30, 2019, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold $16 million in wastewater system revenue bonds in July 2019 for the purpose of funding wastewater system capital improvements in fiscal year 2020. The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.79 percent. Annual debt service payments including principal and interest range from $596,817 to $852,450 with final maturity in fiscal year 2049.

Recently Issued Accounting Pronouncements

In January 2017, the GASB issued GASB Statement No. 84 (Statement No. 84), *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 is effective for fiscal years beginning after December 15, 2018.

In June 2017, the GASB issued GASB Statement No. 87 (Statement No. 87), *Leases*. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset. Statement No. 87 is effective for fiscal years beginning after December 15, 2019.

In June 2018, the GASB issued GASB Statement No. 89 (Statement No. 89), *Accounting for Interest Cost Incurred Before the End of a Construction Period.* The objectives of this Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period, and to simplify accounting for interest cost incurred before the end of a construction period. Statement No. 89 is effective for fiscal years beginning after December 15, 2019.

In August 2018, the GASB issued GASB Statement No. 90 (Statement No. 90), *Major Equity Interests – an amendment of GASB Statements No. 14 and No. 61.* The objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. Statement No. 90 is effective for fiscal years beginning after December 15, 2018.

In May 2019, the GASB issued GASB Statement No. 91 (Statement No. 91), *Conduit Debt Obligations.* The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. Statement No. 91 is effective for fiscal years beginning after December 15, 2020.

KUB has not elected early implementation of these standards and has not completed the process of evaluating the impact of these statements on its financial statements.

3. Deposits and Investments

KUB follows the provisions of Statement No. 40 of the Governmental Accounting Standards Board, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3*. This Statement establishes and modifies disclosure requirements for state and local governments related to deposit and investment risks. KUB classifies its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*.

KUB's investment policy provides the framework for the administration and investment of cash deposits. The investment policy follows Tennessee State law and defines the parameters under which KUB funds should be invested. State law authorizes KUB to invest in obligations of the United States Treasury, its agencies and instrumentalities; certificates of deposit; repurchase agreements; money market funds; and the State Treasurer's Investment Pool.

Interest Rate Risk. KUB's primary investment objectives are to place investments in a manner to ensure the preservation of capital, remain sufficiently liquid to meet all operating requirements, and maximize yield of return. KUB minimizes its exposure to interest rate risk by adhering to Tennessee State law requirements for the investment of public funds. This includes limiting investments to those types described above and limiting maturity horizons. The maximum maturity is four years from the date of investment. KUB also limits its exposure by holding investments to maturity unless cash flow requirements dictate otherwise.

Credit Risk. KUB's investment policy, as required by state law, is to apply the prudent-person rule: Investments are made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable income to be derived, as well as the probable safety of their capital.

Custodial Credit Risk. KUB's investment policy limits exposure to custodial credit risk by restricting investments to a standard set forth by state law. All deposits in excess of federal depository insurance limits are collateralized with government securities held in KUB's name by a third-party custodian bank(s) acting as KUB's agent(s), or through the State of Tennessee's collateral pool. Financial institutions that participate in the collateral pool are subject to special assessment; therefore, the deposits are considered insured. A portion of KUB's investments are generally held in the State of Tennessee Local Government Investment Pool (LGIP). The LGIP is a part of the State Pooled Investment Fund and is sponsored by the State of Tennessee Treasury Department. Tennessee Code Annotated ¶9-4-701 *et seq*. authorizes local governments to invest in the LGIP. None of KUB's investments are exposed to custodial credit risk.

Classification of deposits and investments per Statement of Net Position:

	2019	**2018**
Current assets		
Cash and cash equivalents	$ 22,233,080	$ 42,297,513
Short-term investments	9,986,525	-
Short-term contingency fund investments	23,985,414	11,101,917
Other assets		
Long-term contingency fund investments	10,178,488	22,756,018
Restricted assets		
Wastewater bond fund	8,401,415	8,232,210
Other funds	4,226	4,718
	$ 74,789,148	$ 84,392,376

The above amounts do not include accrued interest of $189,958 in fiscal year 2019 and $158,730 in fiscal year 2018. Interest income is recorded on an accrual basis.

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Investments and maturities of KUB's deposits and investments as held by financial institutions as of June 30, 2019:

	Deposit and Investment Maturities (in Years)		
	Fair Value	**Less Than 1**	**1-5**
Supersweep NOW and Other Deposits	$ 23,219,680	$ 23,219,680	$ -
State Treasurer's Investment Pool	5,600,877	5,600,877	-
Agency Bonds	44,150,427	33,971,939	10,178,488
Certificates of Deposits	2,800,438	2,800,438	-
	$ 75,771,422	$ 65,592,934	$ 10,178,488

KUB categorizes its fair value measurements within the fair value hierarchy established by Statement No. 72 of the Governmental Accounting Standards Board, *Fair Value Measurement and Application*. The hierarchy is based on the valuation inputs used to measure the fair value of an asset with a maturity at purchase greater than one year. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

KUB has the following recurring fair value measurements as of June 30, 2019:

- U.S. Agency bonds of $10,178,488, which have a maturity at purchase of greater than one year, are valued using quoted market prices (Level 1 inputs)

KUB measures investments with a maturity at purchase of one year or less at amortized cost, which is considered a fair value equivalent due to their nature. Investments in the State Treasurer's Investment Pool are measured at net asset value (NAV) per share.

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4. Accounts Receivable

Accounts receivable consists of the following:

	2019	2018
Wholesale and retail customers		
Billed services	$ 5,968,344	$ 5,637,649
Unbilled services	3,906,547	4,013,123
Other	734,761	1,012,159
Allowance for uncollectible accounts	(85,638)	(86,556)
	$ 10,524,014	$ 10,576,375

5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2019	2018
Trade accounts	$ 4,146,636	$ 1,566,588
Salaries and wages	490,933	412,966
Self-insurance liabilities	420,533	400,992
	$ 5,058,102	$ 2,380,546

6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2018	Additions	Payments	Defeased	Balance June 30, 2019	Amounts Due Within One Year
2010 - 6.3 - 6.5%	$ 30,000,000	$ -	$ -	$ -	$ 30,000,000	$ -
2010C - 1.18 - 6.1%	61,600,000	-	1,550,000	-	60,050,000	1,600,000
2012A - 2.0 - 4.0%	12,770,000	-	970,000	-	11,800,000	950,000
2012B - 1.25 - 5.0%	60,375,000	-	1,050,000	-	59,325,000	1,100,000
2013A - 2.0 - 4.0%	110,460,000	-	660,000	-	109,800,000	685,000
2014A - 2.0 - 4.0%	28,275,000	-	475,000	-	27,800,000	500,000
2015A - 3.0 - 5.0%	126,400,000	-	5,010,000	-	121,390,000	5,305,000
2015B - 3.0 - 5.0%	28,500,000	-	500,000	-	28,000,000	525,000
2016 - 2.0 - 5.0%	19,200,000	-	450,000	-	18,750,000	475,000
2017A - 3.0 - 5.0%	10,560,000	-	1,460,000	-	9,100,000	1,525,000
2017B - 2.0 - 5.0%	24,750,000	-	490,000	-	24,260,000	515,000
2018 - 3.0 - 5.0%	-	12,000,000	280,000	-	11,720,000	235,000
Total bonds	$ 512,890,000	$ 12,000,000	$ 12,895,000	$ -	$ 511,995,000	$ 13,415,000
Unamortized Premium	11,860,393	101,285	604,712	-	11,356,966	-
Total long term debt	$ 524,750,393	$ 12,101,285	$ 13,499,712	$ -	$ 523,351,966	$ 13,415,000

	Balance June 30, 2017	**Additions**	**Payments**	**Defeased**	**Balance June 30, 2018**	**Amounts Due Within One Year**
2008 - 4.0 - 6.0%	$ 1,950,000	$ -	$ 1,950,000	$ -	$ -	$ -
2010 - 6.3 - 6.5%	30,000,000	-		-	30,000,000	-
2010C - 1.18 - 6.1%	63,100,000	-	1,500,000	-	61,600,000	1,550,000
2012A - 2.0 - 4.0%	13,755,000	-	985,000	-	12,770,000	970,000
2012B - 1.25 - 5.0%	61,375,000	-	1,000,000	-	60,375,000	1,050,000
2013A - 2.0 - 4.0%	111,095,000	-	635,000	-	110,460,000	660,000
2014A - 2.0 - 4.0%	28,750,000	-	475,000	-	28,275,000	475,000
2015A - 3.0 - 5.0%	129,235,000	-	2,835,000	-	126,400,000	5,010,000
2015B - 3.0 - 5.0%	28,975,000	-	475,000	-	28,500,000	500,000
2016 - 2.0 - 5.0%	19,650,000	-	450,000	-	19,200,000	450,000
2017A - 3.0 - 5.0%	11,965,000	-	1,405,000	-	10,560,000	1,460,000
2017B - 2.0 - 5.0%	-	25,000,000	250,000	-	24,750,000	490,000
Total bonds	$ 499,850,000	$ 25,000,000	$ 11,960,000	$ -	$ 512,890,000	$ 12,615,000
Unamortized Premium	12,067,331	473,638	680,576	-	11,860,393	-
Total long term debt	$ 511,917,331	$ 25,473,638	$ 12,640,576	$ -	$ 524,750,393	$ 12,615,000

Debt service over remaining term of the debt is as follows:

Fiscal	**Total**		**Grand**
Year	**Principal**	**Interest**	**Total**
2020	$ 13,415,000	$ 20,190,259	$ 33,605,259
2021	13,970,000	19,622,138	33,592,138
2022	14,600,000	18,965,784	33,565,784
2023	15,260,000	18,277,891	33,537,891
2024	15,975,000	17,569,844	33,544,844
2025-2029	80,180,000	79,336,557	159,516,557
2030-2034	94,410,000	64,111,584	158,521,584
2035-2039	112,250,000	45,377,234	157,627,234
2040-2044	107,275,000	22,682,147	129,957,147
2045-2049	43,085,000	3,866,820	46,951,820
2050	1,575,000	63,000	1,638,000
Total	$ 511,995,000	$ 310,063,258	$ 822,058,258

The Division has pledged sufficient revenue, after deduction of all current operating expenses (exclusive of tax equivalents), to meet bond principal and interest payments when due. The bond covenants relating to the Wastewater Revenue Bonds require the establishment of a Wastewater Bond Fund for the payment of principal and interest requirements. As of June 30, 2019, those bond covenants had been satisfied.

During fiscal year 2010, KUB's Wastewater Division issued Series 2010 bonds to fund capital improvements. These bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change.

During fiscal year 2011, KUB's Wastewater Division issued Series 2010C bonds to fund wastewater system capital improvements. These bonds were issued as federally taxable Build America Bonds with a 35 percent interest payment rebate to be received from the United States Government for each interest payment. These bonds are subject to a reduction in rebate payment amounts due to the United States Government sequestration. The reduction in rebate effective as of October 1, 2018 is 6.2 percent. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change.

During fiscal year 2018, KUB's Wastewater Division issued Series 2017B bonds to fund wastewater system capital improvements.

During fiscal year 2019, KUB's Wastewater Division issued Series 2018 bonds to fund wastewater system capital improvements.

Other liabilities consist of the following:

	Balance June 30, 2018	Increase	Decrease	Balance June 30, 2019
Accrued compensated absences	$ 1,348,345	$ 3,555,987	$ (3,242,060)	$ 1,662,272
Customer advances for construction	4,600	248,425	-	253,025
Other	66,723	201,709	(190,512)	77,920
	$ 1,419,668	$ 4,006,121	$ (3,432,572)	$ 1,993,217

	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
Accrued compensated absences	$ 1,507,005	$ 3,147,407	$ (3,306,067)	$ 1,348,345
Customer advances for construction	-	4,600	-	4,600
Other	40,081	99,005	(72,363)	66,723
	$ 1,547,086	$ 3,251,012	$ (3,378,430)	$ 1,419,668

7. Lease Commitments

KUB has non-cancelable operating lease commitments for office equipment, property, and vehicles, summarized for the following fiscal years:

2020	$ 43,292
2021	27,875
2022	16,459
Total operating minimum lease payments	$ 87,626

8. Capital Assets

Capital asset activity was as follows:

	Balance June 30, 2018	Increase	Decrease	Balance June 30, 2019
Pumping & Treatment Plant	$ 233,870,201	$ 10,938,015	$ (2,108,312)	$ 242,699,904
Collection Plant				
Mains and Metering	533,144,221	16,945,318	(2,982,503)	547,107,036
Mains and Metering - Meters	154,826	748,744	-	903,570
Other Accounts	80,353,716	-	(5,000)	80,348,716
Total Collection Plant	$ 613,652,763	$ 17,694,062	$ (2,987,503)	$ 628,359,322
Total General Plant	29,485,263	947,300	(170,788)	30,261,775
Total Wastewater Plant	$ 877,008,227	$ 29,579,377	$ (5,266,603)	$ 901,321,001
Less accumulated depreciation	(194,989,639)	(19,916,367)	4,912,668	(209,993,338)
Net Plant Assets	$ 682,018,588	$ 9,663,010	$ (353,935)	$ 691,327,663
Work In Progress	37,960,902	51,213,823	(27,328,276)	61,846,449
Total Net Plant	$ 719,979,490	$ 60,876,833	$ (27,682,211)	$ 753,174,112

	Balance June 30, 2017	Increase	Decrease	Balance June 30, 2018
Pumping & Treatment Plant	$ 227,029,539	$ 8,782,379	$ (1,941,717)	$ 233,870,201
Collection Plant				
Mains and Metering	516,446,174	19,007,807	(2,309,760)	533,144,221
Mains and Metering - Meters	-	154,826	-	154,826
Other Accounts	80,354,716	-	(1,000)	80,353,716
Total Collection Plant	$ 596,800,890	$ 19,162,633	$ (2,310,760)	$ 613,652,763
Total General Plant	29,323,894	1,517,108	(1,355,739)	29,485,263
Total Wastewater Plant	$ 853,154,323	$ 29,462,120	$ (5,608,216)	$ 877,008,227
Less accumulated depreciation	(181,093,401)	(19,447,763)	5,551,525	(194,989,639)
Net Plant Assets	$ 672,060,922	$ 10,014,357	$ (56,691)	$ 682,018,588
Work In Progress	34,691,025	32,540,508	(29,270,631)	37,960,902
Total Net Plant	$ 706,751,947	$ 42,554,865	$ (29,327,322)	$ 719,979,490

9. Risk Management

KUB is exposed to various risks of loss related to active and retiree medical claims; injuries to workers; theft of, damage to, and destruction of assets; environmental damages; and natural disasters. Claims expenditures and liabilities are reported when it is probable that a loss has occurred, and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported.

These liabilities are included in accrued expenses in the Statement of Net Position. The liability is KUB's best estimate based on available information. At June 30, 2019 and June 30, 2018, the amount of these liabilities was $420,533 and $400,992, respectively, resulting from the following changes:

		2019		**2018**
Balance, beginning of year	$	400,992	$	416,193
Current year claims and changes in estimates		3,779,393		3,428,491
Claims payments		(3,759,852)		(3,443,692)
Balance, end of year	$	420,533	$	400,992

10. Pension Plan

Description of Plan

The Knoxville Utilities Board Pension Plan (the Plan) is a governmental plan as defined by the Employee Retirement Income Security Act of 1974 (ERISA or the Act), is not subject to any of the provisions of the Act, and was revised January 1, 2017 to include all prior approved amendments. The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board Resolution No. 980 dated February 18, 1999, effective July 1, 1999, as authorized by the Charter of the City of Knoxville §1107(J). The Plan is designed to provide retirement, disability and death benefits to KUB employees. KUB administers the Plan through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. Any amendments to the Plan involving costs not approved in the operating budget must be adopted by KUB's Board of Commissioners, upon recommendation by KUB's President and CEO. All other amendments to the Plan may be approved by KUB's President and CEO upon 60 days notification to the Board's Audit and Finance Committee. The Plan issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective January 1, 2011, KUB closed the Plan such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the Plan.

Participants in the Plan consisted of the following as of December 31:

	2018	**2017**
Inactive plan members:		
Terminated vested participants	21	34
Retirees and beneficiaries	588	602
Active plan members	592	629
Total	1,201	1,265

Retirement Benefits

The Plan provides three benefit arrangements for KUB participants, retirees, and beneficiaries.

The Plan provides pension benefits through the Career Equity Program ("CEP") for eligible employees hired on or after January 1, 1999, and for eligible former "City System Plan A" participants who elected CEP coverage as of July 1, 1999. The guaranteed pension benefit payable to a participant who has completed five or more years of service (or reached the normal retirement date, if earlier) upon termination of KUB employment shall be a lump sum equal to the participant's average compensation times their benefit percentage, as defined in the Plan document, or an annuity may be chosen by the participant.

In addition, the Plan provided retirement benefits through "Plan A" for former City System Plan A participants who elected not to participate in the CEP. Plan A is a closed plan and is not available to KUB employees hired after July 1, 1999. Plan A provides for early retirement benefits with 25 years of service and normal retirement benefits at age 62 or later. Benefits provided to Plan A participants include several different forms of monthly annuity payments.

The Plan also provides retirement benefits through "Plan B" for former "City System Plan B" participants. Plan B is a closed plan providing benefits to participants not covered by Social Security. Benefits provided to Plan B participants include several different forms of monthly annuity payments available to participants.

Effective January 1, 2012, KUB began to provide for additional monthly supplements, which are not subject to cost of living adjustments, to certain former employees and surviving dependents of former employees who are eligible for and have elected coverage under the KUB retiree medical plan and are eligible for Medicare. This was done to compensate for the elimination of drug coverage under the KUB retiree medical plan and to assist such individuals in obtaining prescription drug coverage under Medicare Part D.

Contributions

Participation in Plan A requires employee contributions of 3 percent of the first $4,800 of annual earnings and 5 percent of annual earnings in excess of $4,800. KUB contributions are determined by the enrolled actuary of the Plan and equal the amount necessary to provide the benefits under the Plan determined by the application of accepted actuarial methods and assumptions. The method of funding shall be consistent with Plan objectives.

Plan Funding

KUB maintains a Funding Policy for the Plan in accordance with Tennessee State Law. The primary goal of the Policy is to document the method KUB has adopted to provide assurance that future KUB and employee contributions and current Plan assets will be sufficient to fund all benefits expected to be paid to current active, inactive and retired Plan participants and their beneficiaries. Per the Funding Policy, KUB fully funds its annual Actuarially Determined Contribution.

Investments

The Plan's investments are held by State Street Bank and Trust Company (the "Trustee"). The Plan's policy in regard to the allocation of invested assets is established by the Retirement System Investment Committee and approved by the KUB Board of Commissioners and may only be amended by the KUB Board of Commissioners. It is the policy of the Retirement System Investment Committee to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Plan's adopted asset allocation policy as of December 31, 2018:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%
Domestic equity – convertible securities	0% - 10%
Non-U.S. equity	0% - 20%
Real estate equity	0% - 10%
Fixed income – aggregate bonds	5% - 25%
Fixed income – long-term bonds	10% - 25%
Cash and deposits	0% - 5%

Contributions of $3,156,661 and $3,756,283 for 2017 and 2016, respectively, were made during the Plan sponsor's fiscal years ending June 30, 2019 and 2018, respectively. Of these amounts, $694,466 and $826,382 are attributable to the Wastewater Division. The fiscal year 2019 contribution was determined as part of the January 1, 2017 valuation using the Individual Entry Age Normal funding method. The objective under this method is to fund each participant's benefits under the Plan as payments which are level as a percentage of salary, starting on the original participation date (employment date) and continuing until the assumed retirement, termination, disability or death.

Net Pension Liability

The below summarizes the disclosures of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*("GASB 68"), which requires measurement of the net pension liability as total pension liability less the amount of the Plan's fiduciary net position. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement date, respectively. The Division's share of the net pension liability at June 30, 2019 is $1,462,946 and the net pension asset at June 30, 2018 is $4,351,242.

GASB 68 requires certain disclosures related to the net pension liability of the Plan as disclosed below:

	2018	2017
Total pension liability	$ 212,157,951	$ 207,598,733
Plan fiduciary net position	(205,508,195)	(227,377,105)
Plan's net pension liability (asset)	$ 6,649,756	$ (19,778,372)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.50%

Changes in Net Pension Liability are as follows:

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances at December 31, 2017	$ 207,598,733	$ 227,377,105	$ (19,778,372)
Changes for the year:			
Service cost	5,095,488	-	5,095,488
Interest	15,344,193	-	15,344,193
Differences between Expected and Actual Experience	(605,649)	-	(605,649)
Changes of Assumptions	-	-	-
Contributions - employer	-	3,456,475	(3,456,475)
Contributions - rollovers	-	2,078,184	(2,078,184)
Contributions - member	-	2,941	(2,941)
Net investment income	-	(11,685,780)	11,685,780
Benefit payments	(15,274,814)	(15,274,814)	-
Administrative expense	-	(445,916)	445,916
Net changes	4,559,218	(21,868,910)	26,428,128
Balances at December 31, 2018	$ 212,157,951	$ 205,508,195	$ 6,649,756

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2018, updated to December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 23 years remaining as of January 1, 2018 and 24 years remaining as of January 1, 2017, or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2018 and 2017, the unfunded liability was negative.
Discount rate	7.5%
Salary increase	From 2.80% to 5.15%, based on years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation	2.8 %

The actuarial assumptions used in the January 1, 2018 and 2017 valuations were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. Subsequent revisions to lump sum and post-disability assumptions were based upon updated experience through December 31, 2015 and to retirement and termination rates and expense assumptions based upon updated experience through December 31, 2016.

The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Plan's target asset allocation as of December 31, 2018 and 2017 are summarized in the following table. The real rate of return reported for fixed income is for aggregate fixed income. The Plan has both aggregate and long duration fixed income.

	Long Term Expected Real Rate of Return	
Asset Class	**2018**	**2017**
Domestic equity	5.8%	5.0%
Non-U.S. equity	6.9%	6.6%
Real estate equity	6.0%	5.6%
Debt securities	1.7%	1.4%
Cash and deposits	0.7%	0.7%

Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability of the Plan as of December 31, 2018, calculated using the discount rate of 7.5 percent, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is one percent lower (6.5 percent) or one percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Plan's net pension liability	$ 23,948,053	$ 6,649,756	$ (8,451,269)

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $4,128,608 (Division's share $908,294).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5.00 years. During the measurement year, there was an experience gain of $605,649 with $121,129 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $484,520 (Division's share $106,594). Unrecognized experience gains from prior periods were $2,966,120 of which $1,042,252 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,923,868 (Division's share $423,251).

During the measurement year, there were no benefit changes or assumption changes. Unrecognized assumption change decreases from prior periods were $2,045,837 of which $658,104 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,387,733 (Division's share $305,301).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $28,364,098. $5,672,818 of that loss was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $8,925,385 of which $1,848,879 was recognized as a decrease in pension expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2018 of $15,614,774 (Division's share $3,435,249). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,578,332 (Division's share $347,234) at June 30, 2019 for employer contributions made between December 31, 2018 and June 30, 2019.

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	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,408,388
Changes in assumptions	-	1,387,733
Net difference between projected and actual earnings on pension plan investments	15,614,774	-
Contributions subsequent to measurement date	1,578,332	-
Total	$ 17,193,106	$ 3,796,121
Division's share	$ 3,782,483	$ 835,146

$1,578,332 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 3,597,035
2021	898,518
2022	1,771,410
2023	5,551,690
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of ($15,659) (Division's share ($3,445)).

The impact of experience gains or losses and assumptions changes on the Total Pension Liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5.00 years. During the measurement year, there was an experience gain of $1,087,161 with $217,432 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $869,729 (Division's share $191,340). Unrecognized experience gains from prior periods were $2,921,210 of which $824,819 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $2,096,391 (Division's share $461,206).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of $357,633 with $71,526 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of $286,107 (Division's share $62,944). Unrecognized assumption change gains from prior periods were $2,346,307 of which $586,577 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of $1,759,730 (Division's share $387,141).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $17,456,614. $3,491,323 of that gain was recognized in the current year and an identical amount will be recognized in each of the next four years. Net unrecognized investment losses from prior periods were $6,682,351 of which $1,642,445 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment gains this year along with the net unrecognized investment losses from prior periods results in a net difference between projected and actual

earnings on pension plan investments as of December 31, 2017 of ($8,925,384) (Division's share ($1,963,584)). The following table summarizes the current balances of deferred outflows and deferred inflows of resources. In addition, KUB recorded a deferred outflow of resources of $1,878,146 (Division's share $413,192) at June 30, 2018 for employer contributions made between December 31, 2017 and June 30, 2018.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 2,966,120
Changes in assumptions	-	2,045,837
Net difference between projected and actual earnings on pension plan investments	-	8,925,385
Contributions subsequent to measurement date	1,878,146	-
Total	$ 1,878,146	$ 13,937,342
Division's share	$ 413,192	$ 3,066,215

11. Qualified Excess Benefit Arrangement

Description

In fiscal year 2017, KUB implemented a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). The QEBA is a single-employer defined benefit pension plan, administered by KUB. The number of participants in any given year for the QEBA is determined by the number of KUB Pension Plan participants who exceed the current year's section 415(b) limitations, as calculated by the KUB Pension Plan actuary. The amount of QEBA benefit will be the amount specified by the terms of the KUB Pension Plan without regard to Section 415(b) limitations minus the amount payable from the KUB Pension Plan as limited by Section 415(b). QEBA benefits are not subject to cost of living adjustments.

As of June 30, 2019, there are 568 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There is currently one member receiving benefits under the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or re-employed by KUB on or after January 1, 2011, are not eligible to participate, but that eligible employees hired prior to January 1, 2011, who have not separated from service, shall continue as Participants and accrue benefits under the KUB Pension Plan. The KUB Pension Plan was amended to include the provision of QEBA benefits, therefore, amendments to the QEBA require the same authority as amendments to the KUB Pension Plan. As required by federal tax law, the QEBA is unfunded within the meaning of the federal tax laws. KUB may not pre-fund the QEBA to cover future liabilities beyond the current year. KUB has established procedures to pay for these benefits on a pay-as-you-go basis, funded by KUB. There are no assets accumulated in a trust that meets the GASB's criteria.

Total Pension Liability of the QEBA

The below summarizes the disclosures of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). GASB 73 extends a similar approach of financial reporting to plans meeting specific criteria that are not administered through trusts that GASB 68 established for pension plans. GASB 73 requires measurement of the total pension liability of the QEBA. The amounts reported as of June 30 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2019 and 2018 will be based on the December 31, 2018 and 2017 measurement dates, respectively. The Division's share of the total pension liability at June 30, 2019 is $51,015 and at June 30, 2018 is $61,675.

GASB 73 requires certain disclosures related to the total pension liability of the QEBA, as disclosed below:

	2018	**2017**
Total pension liability	$231,883	$280,341
Deferred outflows	(52,287)	(69,716)
Deferred inflows	47,260	-
Net impact on Statement of Net Position	$226,856	$210,625
Covered payroll	$42,150,040	$43,309,374
Total pension liability as a % of covered payroll	0.55%	0.65%

Changes in total pension liability of the QEBA are as follows:

	Increase (Decrease)
	Total Pension Liability
Balances at December 31, 2017	$ 280,341
Changes for the year:	
Service cost	941
Interest	9,676
Changes of Benefits	-
Differences between Expected and Actual Experience	(36,125)
Changes of Assumptions	(22,950)
Benefit payments	-
Net changes	(48,458)
Balances at December 31, 2018	$ 231,883

Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation, using the following actuarial assumptions applied to all periods included in the measurement:

Valuation dates	January 1, 2019, for December 31, 2018; January 1, 2017, updated to December 31, 2017
Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar, 30-year closed period with 22 years remaining as of January 1, 2019 and 24 years remaining as of January 1, 2017.
Salary increase	From 2.80% to 5.15%, based on years of service

Mortality	Sex distinct MP2018 fully generational as of January 1, 2019 and Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA as of January 1, 2017
Inflation	2.5% as of January 1, 2019 and 2.8% as of January 1, 2017

The actuarial assumptions used in the January 1, 2019 valuation were based on the results of an actuarial experience study for the period January 1, 2014 through December 31, 2018.

Discount rate
The QEBA is not funded. In accordance with paragraph 31 of GASB 73, the discount rate is based on the Bond Buyer 20-Bond GO index. This rate was 4.1% at December 31, 2018.

Sensitivity of the total pension liability to changes in the discount rate
The following presents the total pension liability of the QEBA as of December 31, 2018, calculated using the discount rate of 4.1 percent, as well as what the QEBA's total pension liability would be if it were calculated using a discount rate that is one percent lower (3.1 percent) or one percent higher (5.1 percent) than the current rate:

	1% Decrease (3.1%)	**Current Discount Rate (4.1%)**	**1% Increase (5.1%)**
QEBA's total pension liability	$ 254,623	$ 231,883	$ 212,364

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, KUB recognized pension expense of $29,543 for the QEBA (Division's share $6,499). This amount is not expected to be the same as KUB's contribution to the QEBA ($13,312), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions [$226,856 - $210,625 + $13,312].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2017, this average was 5 years. During the measurement year, there was an experience gain of $36,125 with $7,225 recognized in the current year and each of the next four years, resulting in a deferred inflow of $28,900 (Division's share $6,358). There was a deferred outflow at the end of the measurement year of $8,210 from experience losses in prior years (Division's share $1,806).

During the measurement year, there were no benefit changes. There was a decrease in the total pension liability due to assumption changes of $22,950 with $4,590 recognized in the current year and each of the next four years, resulting in a deferred inflow of $18,360 (Division's share $4,040). There was a deferred outflow at the end of the measurement year of $44,077 from assumption changes in prior years (Division's share $9,697). In addition, KUB recorded a deferred outflow of resources of $7,242 at June 30, 2019 for contributions between December 31, 2018 and June 30, 2019 (Division's share $1,594).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 8,210	$ 28,900
Changes in assumptions	44,077	18,360
Contributions subsequent to measurement date	7,242	-
Total	$ 59,529	$ 47,260
Division's share	$ 13,097	$ 10,398

$7,242 reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction of the total pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:

Year ended June 30:	
2020	$ 5,614
2021	5,614
2022	5,614
2023	(11,815)
Thereafter	-

For the year ended June 30, 2018, KUB recognized pension expense of $29,527 for the QEBA (Division’s share $6,496). This amount is not expected to be the same as KUB’s contribution to the QEBA ($3,979), but instead represents the change in the net impact on KUB’s Statement of Net Position plus employer contributions [$210,625 - $185,077 + $3,979].

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members, determined as of the beginning of the measurement period. As of December 31, 2016, this average was 5 years. During the measurement year, there was an experience loss of $13,684 with approximately $2,737 recognized in the current year and each of the next four years, resulting in a deferred outflow of $10,947 (Division’s share $2,409).

During the measurement year, there were no benefit changes. There was an increase in the total pension liability due to assumption changes of $73,461 with approximately $14,692 recognized in the current year and each of the next four years, resulting in a deferred outflow of $58,769 (Division’s share $12,929).

The table below summarizes the current balances of deferred outflows and deferred inflows of resources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 10,947	$ -
Changes in assumptions	58,769	-
Total	$ 69,716	$ -
Division's share	$ 15,338	$ -

12. Defined Contribution Plan

The KUB Asset Accumulation 401(k) Plan (the “401(k) Plan”) is a defined contribution 401(k) employee retirement savings plan covering eligible KUB employees established by the KUB Board of Commissioners in accordance with the Charter of the City of Knoxville, Tennessee. The 401(k) Plan’s assets are held in trust under an agreement between KUB and Fidelity Management Trust Company. Employees hired prior to January 1, 2011 may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. Employees hired on or after January 1, 2011 have an enhanced 401(k) due to the closure of the Defined Benefit Pension Plan. They may participate and receive a matching contribution of 50 percent of their own contribution up to a maximum match of 3 percent. They also receive a nonelective KUB contribution of 3 percent to 6 percent, depending on years of service, whether they contribute or not.

KUB funded 401(k) matching contributions and nonelective contributions of $2,410,201 (Division’s share $530,244) and $2,174,711 (Division’s share $478,436), respectively, for the years ended June 30, 2019 and 2018.

13. Other Post-Employment Benefits (OPEB)

Description of Trust

The Knoxville Utilities Board Other Post Employment Benefits Trust (the Trust) is a single-employer Other Post Employment Benefits Plan (OPEB Plan) established by the Knoxville Utilities Board of Commissioners through Resolution No. 1168, as amended, dated October 18, 2007. The applicable documentation was submitted to the State Funding Board and, in December 2007, the State Funding Board approved the Trust. The Trust was also approved by the Internal Revenue Service in June 2008. KUB administers the Trust through a Board of Trustees consisting of seven KUB employees that are appointed by KUB’s President and CEO. Any amendments to the Trust involving costs not approved in the operating budget must be approved by KUB’s Board of Commissioners, upon recommendation by KUB’s President and CEO. All other amendments to the Trust may be approved by KUB’s President and CEO upon 60 days notification to the Board’s Audit and Finance Committee. The investment of all deposits to the Trust is governed by an Investment Policy, which was adopted by the KUB Board and approved by the State Funding Board. The Trust issues a financial report, which includes financial statements and required supplementary information. The report may be obtained by writing the Knoxville Utilities Board

Retirement System, P.O. Box 59017, Knoxville, TN 37950-9017. For purposes of this disclosure, presentation is on a consolidated basis unless division's share is specified.

Effective July 1, 1999, KUB closed the OPEB Plan such that persons employed or re-employed by KUB on or after July 1, 1999, are not eligible to participate, but that eligible employees hired prior to July 1, 1999, who are retired and who (prior to retirement) qualified for retiree medical insurance by meeting the "Rule of 80", the sum of age and at least 20 years of qualified service equal or exceed 80, accrue benefits under the OPEB Plan.

Participants in the OPEB Plan consisted of the following as of June 30:

	2019	**2018**
Retirees	554	562
Dependents of retirees	550	561
Eligible active employees	288	309
Total	1,392	1,432

Benefits

Other post-employment benefits may include, but shall not be limited to, medical, prescription drugs, dental, vision, hearing, Medicare Part B or Part D premiums, life insurance, long-term care, and long-term disability. Only medical and pharmacy are currently provided to eligible retirees.

Contributions and Plan Funding

The primary goal of the Funding Policy for the Trust is to document the method KUB has adopted to provide assurance that future KUB and retiree contributions and current Trust assets will be sufficient to fund all benefits expected to be paid to Trust beneficiaries. Per the Funding Policy, KUB's current practice is to fully fund its annual Actuarially Determined Contribution, which is determined by actuarial valuation.

Contributions are authorized by the terms of the Trust as established by KUB Resolution No. 1168, as amended, as approved by the Tennessee State Funding Board. KUB shall have the right at any time to amend, in whole or in part, the provisions of this Trust; however, no such amendment shall authorize or permit the assets of the Trust to be used for or diverted to purposes other than those expressed in the Declaration of Trust.

It shall be the sole and exclusive responsibility of KUB to determine the level of contributions KUB will make to the Trust for the purpose of financing other post-employment benefits accrued by its respective participants. Neither the Trust, nor the Trust's Board shall be responsible for collecting or otherwise determining the level of contributions needed by KUB to finance any other post-employment benefits offered by KUB. The assets of the Trust shall be expended solely to make payments for other post-employment benefits pursuant to and in accordance with the terms of the Trust and to pay the cost of administration.

Based on the date of retirement, certain retired plan members are required to contribute specified amounts monthly to maintain health insurance. Those who retired prior to July 1983 have no required monthly premiums for themselves or dependents. The retirees, or their surviving dependents, who retired between August 1983 and January 1998 are required to pay $250 per month for pre-Medicare family health insurance. For individuals who retired after January 1998 the required monthly premium for pre-Medicare health insurance is $250 for single coverage and $500 for family coverage. There is currently no premium for Medicare eligible retirees or dependents.

KUB is responsible for determining the level of retired plan member contributions on an annual basis, as part of its review of healthcare cost sharing.

Investments

The Trust holds investments in a balanced fund, which invests in passively managed common trust index funds, managed and sponsored by State Street Global Advisors (SSgA), with an asset allocation mirroring the asset allocation of the Trust and rebalanced monthly. The Trust's Investment Policy was established and may only be amended by the KUB Board of Commissioners. The Trust's Investment Policy is to invest in a manner that will provide sufficient investment return to meet current and future retiree health benefits, while conforming to all governing State and Federal statutes. It allows investment of Trust assets in any type of security instrument allowed for in T.C.A 8-50-1203. The following was the Trust's adopted investment target allocations as set forth in the Trust's Investment Policy as of June 30, 2019:

Asset Class	**Target Allocation**
Domestic Equity:	
Large Cap	30%
Small Cap	8%
International Equity:	
Developed	16%
Emerging	8%
Real Estate Equity	8%
Debt Securities	30%
Total	100%

No contributions were made to the OPEB Trust for the fiscal years ending June 30, 2019 and 2018, based on the OPEB Plan's actuarial valuations as of January 1, 2017, and 2016.

Implementation of GASB 75

In fiscal year 2018, KUB adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), which requires measurement of the net OPEB liability as total OPEB liability, less the amount of the Trust's fiduciary net position. The amounts reported as of June 30, 2019 are based on the reporting date for the KUB Other Post-Employment Benefits Plan which is June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019 and the Total OPEB Liability as of the valuation date, January 1, 2018, updated to June 30, 2019. The Division's share of the total net OPEB liability at June 30, 2019 is $318,503 and the net OPEB asset at June 30, 2018 is $825,235.

The components of the net OPEB liability of the Trust are as follows as of June 30:

	2019	**2018**
Total OPEB liability	$ 50,197,938	$ 45,604,431
Plan fiduciary net position	48,750,196	49,355,499
Net OPEB liability (asset)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%

Changes in Net OPEB Liability are as follows:

	Total OPEB Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (a) - (b)
Balances at June 30, 2018	$ 45,604,431	$ 49,355,499	$ (3,751,068)
Changes for the year:			
Service cost	270,515	-	270,515
Interest	3,624,737	-	3,624,737
Differences between Expected and Actual Experience	999,098	-	999,098
Changes of Assumptions	3,231,601	-	3,231,601
Contributions - employer	-	-	-
Contributions - member	-	-	-
Net investment income	-	2,981,928	(2,981,928)
Benefit payments	(3,532,444)	(3,532,444)	-
Administrative expense	-	(54,787)	54,787
Net changes	4,593,507	(605,303)	5,198,810
Balances at June 30, 2019	$ 50,197,938	$ 48,750,196	$ 1,447,742

Actuarial assumptions

The total OPEB liability was determined by actuarial valuations, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation dates:	January 1, 2018, updated to June 30, 2019; January 1, 2017, updated to June 30, 2018
Discount rate:	7.5%
Healthcare cost trend rates:	Pre-Medicare: 8.00% grading down to 4.50% over 20 years as of January 1, 2018; 7.83% grading down to 4.50% over 19 years as of January 1, 2017 Medicare: 7.00% grading down to 4.50% over 20 years as of January 1, 2018; 6.88% grading down to 4.50% over 19 years as of January 1, 2017 Administrative expenses: 3.0% per year
Salary increases:	From 2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013, with subsequent revisions to retirement and termination assumptions based upon a special experience study, which reflected experience through December 31, 2016.

The long-term expected rate of return on Trust investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Trust investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The long-term expected rate of return may be lower in periods of current strong performance due to future valuations that mean revert to the long-term average. Best estimates of arithmetic real rates of return for each major asset class included in the Trust's target asset allocation (see the discussion of the Trust's Investment Policy) are summarized in the chart below.

	Long Term Expected Real Rate of Return	
Asset Class	**2019**	**2018**
Domestic equity	5.5%	5.1%
International equity	6.4%	6.6%
Real estate equity	5.9%	5.8%
Debt securities	1.5%	1.6%
Cash and deposits	0.6%	0.8%

Discount rate

The discount rate used to measure the total OPEB liability was 7.5 percent. The projection of cash flows used to determine the discount rate assumed that participant contributions will be made at the current contribution rate and that KUB contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected future benefit payments. Therefore, the long-term expected rate of return on Trust investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB liability to changes in the discount rate.

The following presents the net OPEB liability of the Trust as of June 30, 2019, calculated using the discount rate of 7.5 percent, as well as what the Trust's net OPEB liability would be if it were calculated using a discount rate that is 1 percent lower (6.5 percent) or 1 percent higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
Net OPEB liability (asset)	$ 5,912,340	$ 1,447,742	$ (2,396,293)

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.
The following presents the net OPEB liability of the Trust as of June 30, 2019, as well as what the Trust's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percent lower or 1 percent higher than the current rate:

	1% Decrease	Baseline Trends	1% Increase
Net OPEB liability (asset)	$ (3,158,239)	$ 1,447,742	$ 6,713,737

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2019, KUB recognized OPEB expense of $3,046,377 (Division's share $670,203).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $999,098 with $499,549 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $499,549 (Division's share $109,901). Unrecognized experience losses from prior periods were $662,384 of which the entire amount is recognized as an increase in OPEB expense in the current year.

During the measurement year, there were no benefit changes. There was an increase in the Total OPEB Liability due to assumption changes of $3,231,601 with $1,615,801 of that recognized in the current year and in the next year, resulting in a deferred outflow of $1,615,800 (Division's share $355,476). Unrecognized assumption changes from prior periods were ($198,590) of which the entire amount is recognized as a decrease in OPEB expense in the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of $587,645. $117,529 of that was recognized in the current year and will be recognized in each of the next four years. Net unrecognized investment gains from prior periods were $123,047 of which $30,762 was recognized as a decrease in OPEB expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment gains from prior periods results in a net difference between projected and actual earnings on OPEB plan investments as of June 30, 2019 of $377,831 (Division's share $83,123). The table on the next page summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 499,549	$ -
Changes in assumptions	1,615,800	-
Net difference between projected and actual earnings on OPEB plan investments	377,831	-
Total	$ 2,493,180	$ -
Division's share	$ 548,500	$ -

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:	
2020	$ 2,202,116
2021	86,767
2022	86,768
2023	117,529
Thereafter	-

For the year ended June 30, 2018, KUB recognized OPEB expense of $430,880 (Division's share $94,794).

The impact of liability experience gains or losses and assumption changes on the Total OPEB Liability are recognized in the OPEB expense over the average expected remaining service life of all active and inactive members of the OPEB Plan. As of the beginning of the measurement period, this average was 2.0 years. During the measurement year, there was an experience loss of $1,324,769 with $662,385 of that recognized in the current year and the remaining amount will be recognized in the next year, resulting in a deferred outflow of resources of $662,384 (Division's share $145,724).

During the measurement year, there were no benefit changes. There was a decrease in the Total OPEB Liability due to assumption changes of $397,180 with $198,590 of that recognized in the current year and in the next year, resulting in a deferred inflow of $198,590 (Division's share $43,690).

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of $153,809. $30,762 of that was recognized in the current year and $123,047 (Division's share $27,070) will become a deferred inflow of resources recognized over the next four years. The table on the next page summarizes the current balances of deferred outflows and deferred inflows of resources.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 662,384	$ -
Changes in assumptions	-	198,590
Net difference between projected and actual earnings on OPEB plan investments	-	123,047
Total	$ 662,384	$ 321,637
Division's share	$ 145,724	$ 70,760

14. Related Party Transactions

The Division, in the normal course of operations, is involved in transactions with the City of Knoxville and with other divisions of KUB. Such transactions for the years ended June 30, 2019 and 2018 are summarized as follows:

	2019	2018
City of Knoxville		
Amounts billed by the Division for utilities and related services	$ 1,017,609	$ 1,067,941
Payments by the Division in lieu of property tax	4,429,170	4,218,257
Payments by the Division for services provided	1,815,100	682,763
Other divisions of KUB		
Amounts billed to other divisions for utilities and related services provided	332,749	346,746
Interdivisional rental expense	280,894	313,388
Interdivisional rental income	95,005	122,211
Amounts billed to the Division by other divisions for utilities services provided	3,527,629	3,251,471

With respect to these transactions, accounts receivable from the City of Knoxville included in the balance sheet at year end were as follows:

	2019	2018
Accounts receivable	$ 32,537	$ 75,833

15. Other Commitments and Contingencies

In the normal course of business, there are various lawsuits pending against KUB. Management has reviewed these lawsuits with counsel, who is vigorously defending KUB's position and is of the opinion that the ultimate disposition of these matters will not have a material adverse effect on KUB's financial position, results of operations or cash flows.

In February 2005, a Consent Decree was entered into federal court regarding the operation of KUB's wastewater system. Under the terms of the Consent Decree, the remediation of identified sanitary sewer overflows (SSOs) on KUB's wastewater system had to be completed by June 30, 2016. KUB completed all the requirements of the Consent Decree for the collection system two years in advance of the deadline.

The Consent Decree also required KUB to perform an evaluation of the wet weather performance and capacity of its wastewater treatment plants. In July 2007, KUB submitted a Composite Correction Plan (CCP) for its wastewater treatment plants to EPA for review. The development and filing of the CCP was a requirement of the federal order of February 2005. The CCP includes recommended improvements to KUB's Kuwahee and Fourth Creek treatment plants to address wet weather capacity issues noted in prior assessments. The EPA approved the CCP in January 2009 including a recommended schedule of plant improvements that extends beyond the expiration date of the original Consent Decree. An amendment to the Consent Decree incorporating and establishing this schedule was agreed to by all parties and was entered on June 23, 2009. The purpose of the Amendment is to allow KUB to complete a portion of work outlined in the CCP after the Consent Decree deadline of June 30, 2016. The CCP provides for a biologically enhanced high-rate clarification (the BEHRC) secondary treatment system to be installed at the Fourth Creek treatment plant by June 30, 2018 and at the Kuwahee treatment plant by June 30, 2021. KUB successfully completed the installation of the BEHRC system at the Fourth Creek treatment plant ahead of schedule in April 2018. Work is currently ongoing at the Kuwahee treatment plant and remains on schedule for completion before the deadline of June 30, 2021. The total cost of such improvements at the Kuwahee treatment plant is estimated to be approximately $50 million.

KUB's funding plan for the Consent Decree includes long-term bonds and a series of rate increases phased in over the term of the order. Bond proceeds fund all types of wastewater capital projects, the majority of which are related to the Consent Decree. As of June 30, 2019, the Wastewater Division had issued $542 million in bonds to fund wastewater system capital improvements since the inception of the Consent Decree. The Board approved two 50 percent rate increases, which went into effect in April 2005 and January 2007. The Board also approved an 8 percent rate increase, which was effective in September 2008, two 12 percent rate increases, which were effective in April 2011 and October 2012, three 6 percent rate increases which were effective October 2014, October 2015 and October 2016 and three 5 percent rate increases effective July 2017, July 2018, and July 2019. KUB anticipates additional bond issues and rate increases over the next decade to help fund wastewater capital improvements.

KUB successfully completed the first cycle of Maintenance Operation Management (MOM) requirements one year before the deadline by inspecting manholes and gravity mains, smoke testing gravity mains, performing required inspections of pump stations and the related force mains, and completing all Corrective Action Plan/Engineering Report (CAP/ER) projects. KUB initiated the second MOM cycle that continues to focus on the prevention of SSOs. As part of the Century II initiative, formally known as the PACE10 program, KUB has installed storage tanks providing 34 million gallons of wastewater storage to control wet weather overflows and rehabilitated or replaced approximately 385.7 miles of collection system pipe. KUB also continues to maintain a proactive operations and maintenance plan for the wastewater collection system including inspection, grease control, and private lateral enforcement. The result of the PACE10/Century II initiative has been an 80 percent reduction in SSOs.

As of June 30, 2019, the Wastewater Division had completed its 15th full year under the Consent Decree, spending $545.6 million on capital investments to meet Consent Decree requirements.

Knoxville Utilities Board Wastewater Division
Required Supplementary Information – Schedule of Changes in Net Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	**2017**	**2016**	**2015**	**2014**
Total pension liability					
Service cost	$ 5,095,488	$ 4,607,486	$ 4,226,985	$ 4,157,062	$ 4,092,808
Interest	15,344,193	15,015,282	14,966,559	14,812,784	14,698,657
Differences between expected and actual experience	(605,649)	(1,087,161)	(2,233,762)	(1,890,334)	-
Changes of assumptions	-	(357,633)	(2,932,883)	-	-
Benefit payments, including refunds of member contributions	(15,274,814)	(14,969,979)	(14,138,511)	(15,350,926)	(15,533,167)
Net change in total pension liability	4,559,218	3,207,995	(111,612)	1,728,586	3,258,298
Total pension liability - beginning	207,598,733	204,390,738	204,502,350	202,773,764	199,515,466
Total pension liability - ending (a)	$ 212,157,951	$ 207,598,733	$ 204,390,738	$ 204,502,350	$ 202,773,764
Plan fiduciary net position					
Contributions - employer	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contributions - participants	2,081,125	1,488,632	555,075	487,546	475,854
Net investment income	(11,748,396)	32,360,219	13,788,263	(95,430)	22,292,369
Other additions	62,616	82,239	45,848	30,879	29,733
Benefit payments, including refunds of member contributions	(15,174,814)	(14,895,979)	(14,044,511)	(15,274,926)	(15,405,167)
Administrative expense	(445,916)	(385,282)	(441,332)	(397,160)	(378,085)
Death benefits	(100,000)	(74,000)	(94,000)	(76,000)	(128,000)
Net change in plan fiduciary net position**	(21,868,910)	22,862,426	5,052,489	(9,333,204)	12,795,245
Plan fiduciary net position - beginning**	227,377,105	204,514,679	199,462,190	208,795,394	196,000,149
Plan fiduciary net position - ending (b)**	$ 205,508,195	$ 227,377,105	$ 204,514,679	$ 199,462,190	$ 208,795,394
Plan's net pension liability - ending (a) - (b)	$ 6,649,756	$ (19,778,372)	$ (123,941)	$ 5,040,160	$ (6,021,630)
Plan fiduciary net position as a percentage of the total pension liability	96.87%	109.53%	100.06%	97.54%	102.97%
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Plan's net pension liability as a percentage of covered payroll	15.78	(45.67%)	(0.28%)	11.34%	(13.66%)

Notes to Schedule:

* Information not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented in 2014.

** Excludes amounts related to 401(k) matching contributions.

Knoxville Utilities Board Wastewater Division
Required Supplementary Information – Schedule of Employer Pension Contributions
June 30, 2019
(Unaudited)

	*Year ended December 31				
	2018	2017	2016	2015	2014
Actuarially determined contribution	$ 3,456,475	$ 4,286,597	$ 5,243,146	$ 5,991,887	$ 5,908,541
Contribution in relation to the actuarially determined contribution	3,456,475	4,286,597	5,243,146	5,991,887	5,908,541
Contribution deficiency	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747	$ 44,446,743	$ 44,076,351
Contributions as a percentage of covered payroll	8.20%	9.90%	11.80%	13.48%	13.41%

Notes to Schedule:

Timing:	Actuarially determined contributions for a Plan year are based upon 50% of the amounts determined at the actuarial valuations for each of the two prior Plan years.
Valuation Dates:	January 1, 2017 and January 1, 2016

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Individual entry age
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 24 years remaining (25 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative.
Discount rate:	7.5%
Salary increases:	2.80% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%

* Schedule of Employer Contribution information is not reflected prior to 2014 due to changes in actuary methodologies required under GASB 67, which was implemented 2014. Please refer to prior year's audited financial statements for prior methods and assumptions.

Knoxville Utilities Board Wastewater Division

Required Supplementary Information – Schedule of Changes in Net OPEB Liability and Related Ratios

June 30, 2019

(Unaudited)

	*Year ended June 30	
	2019	**2018**
Total OPEB liability		
Service cost	$ 270,515	$ 202,603
Interest	3,624,737	3,295,240
Differences between expected and actual experience	999,098	1,324,769
Changes of assumptions	3,231,601	(397,180)
Benefit payments	(3,532,444)	(3,298,739)
Net change in total OPEB liability	4,593,507	1,126,693
Total OPEB liability - beginning	45,604,431	44,477,738
Total OPEB liability - ending (a)	$ 50,197,938	$ 45,604,431
Plan fiduciary net position		
Contributions - employer	$ -	$ -
Net investment income	2,981,928	3,705,473
Benefit payments	(3,532,444)	(3,298,739)
Administrative expense	(54,787)	(51,668)
Net change in plan fiduciary net position	(605,303)	355,066
Plan fiduciary net position - beginning	49,355,499	49,000,433
Plan fiduciary net position - ending (b)	$ 48,750,196	$ 49,355,499
Net OPEB liability - ending (a) - (b)	$ 1,447,742	$ (3,751,068)
Plan fiduciary net position as a percentage of the total OPEB liability	97.12%	108.23%
Covered employee payroll	$ 24,346,735	$ 23,677,080
Net OPEB liability as a percentage of covered employee payroll	5.95%	(15.84%)

Notes to Schedule:

* Information not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.

Knoxville Utilities Board Wastewater Division
Required Supplementary Information – Schedule of Employer OPEB Contributions
June 30, 2019
(Unaudited)

	*Year ended June 30	
	2019	**2018**
Actuarially determined contribution	$ -	$ -
Contribution in relation to the annual required contribution	-	-
Contribution deficiency/(excess)	$ -	$ -
Covered employee payroll	$ 24,346,735	$ 23,677,080
Contributions as a percentage of covered employee payroll	0.00%	0.00%

Notes to Schedule:

Valuation Date:	January 1, 2017 and January 1, 2016
Timing:	Actuarially determined contribution rates are calculated based on the actuarial valuation completed 18 months before the beginning of the fiscal year.

Key methods and assumptions used to determine contribution rates:

Actuarial cost method:	Entry age normal
Asset valuation method:	5-year smoothed market
Amortization method:	Level dollar, 30-year closed period with 19 years remaining as of January 1, 2017 (20 years as of January 1, 2016), or a level dollar, 30-year open period for a negative unfunded liability; As of January 1, 2017, the unfunded liability was negative
Discount rate:	7.5%
Healthcare cost trend rate:	Pre-Medicare: 7.83% grading down to 4.5% over 19 years as of January 1, 2017; 8% to 4.5% over 20 years as of January 1, 2016 Medicare: 6.88% grading down to 4.5% over 19 years as of January 1, 2017; 7% to 4.5% over 20 years as of January 1, 2016 Administrative expenses: 3.0% per year
Salary increases:	From 2.8% to 5.15%, based on years of service
Mortality:	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation:	2.8%
Investment rate of return:	7.5%
Retirement age:	2% at ages 50-57 and ages 50-55, at January 1, 2017 and January 1, 2016, respectively, grading up to 100% at age 70

* Schedule of Employer Contribution information is not reflected prior to 2018 due to changes in actuary methodologies required under GASB 75, which was implemented in 2018.
Please refer to prior year's audited financial statement for prior methods and assumptions.

Knoxville Utilities Board Wastewater Division
Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement
Schedule of Changes in Total Pension Liability and Related Ratios
June 30, 2019
(Unaudited)

	*Year ended December 31		
	2018	2017	2016
Total pension liability			
Service cost	$ 941	$ 584	$ -
Interest (includes interest on service cost)	9,676	7,535	-
Changes of benefit terms	-	-	185,077
Differences between expected and actual experience	(36,125)	13,684	-
Changes of assumptions	(22,950)	73,461	-
Benefit payments, including refunds of member contributions	-	-	-
Net change in total pension liability	(48,458)	95,264	185,077
Total pension liability - beginning	280,341	185,077	-
Total pension liability - ending	$ 231,883	$ 280,341	$ 185,077
Covered payroll	$ 42,150,040	$ 43,309,374	$ 44,437,747
Total pension liability as a percentage of covered payroll	0.55%	0.65%	0.42%

Notes to Schedule:

* There are no assets accumulated in a trust that meet the criteria in paragraph 4 of GASB 73 to pay related benefits.

Knoxville Utilities Board Wastewater Division
Supplemental Information - Schedule of Insurance in Force
June 30, 2019
(Unaudited) Schedule 1

Insurance coverage is for KUB as a consolidated entity.

Crime
Covers losses resulting from employee dishonesty, robbery, burglary, and computer fraud. Limits of coverage - $5,000,000; $250,000 retention.

Directors' and Officers' Liability Insurance
Covers KUB personnel appropriately authorized to make decisions on behalf of KUB (including but not limited to Commissioners, President and CEO, Senior Vice Presidents, Vice Presidents, and Directors) for wrongful acts. Limits of coverage - $20,000,000; $1,000,000 corporate deductible, $0 individual deductible.

Employment Practices Liability
Coverage for costs related to actual or alleged employment practices violations for amounts exceeding specified amount ($500,000). Limits of coverage - $10,000,000.

Fiduciary
Covers losses resulting from wrongful acts related to KUB's Pension, 401(k), OPEB Trust funds, and Medical Plan. Limits of coverage - $10,000,000; $150,000 deductible.

Pollution Legal Liability
New conditions coverage for losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - $20,000,000.

Property Insurance
This coverage provides protection of KUB's property for fire, extended coverage, vandalism and malicious mischief, and coverage on boilers and machinery. Also included are flood and earthquake damage and mechanical failure. Limits of coverage - $250,000,000 per occurrence (subject to certain sublimits); $2,500,000 deductible per occurrence.

Travel Accident
Covers losses related to employees' business travel. Limits of coverage - $1,000,000 aggregate.

Excess Insurance for General Liability
As a government entity, KUB's liability is limited under the Tennessee Governmental Tort Liability Act (TCA §29-20-403). KUB is self-insured for up to the first $700,000 of any accident and has insurance of $1,000,000 above this retention.

Excess Insurance for Workers' Compensation
Covers all losses exceeding specified amount per occurrence ($1,000,000). Limits of coverage - Statutory; stop loss coverage applies for aggregate losses over $5,000,000.

Employee Health Plan Stop Loss Coverage
KUB's employee health plan is self-funded. KUB has purchased stop loss insurance, which covers KUB's exposure to annual expenses in excess of $500,000 per individual participant.

Knoxville Utilities Board Wastewater Division
Supplemental Information – Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

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	2010			2010C			2012A		2012B	
FY	Principal	Interest	Rebate*	Principal	Interest	Rebate*	Principal	Interest	Principal	Interest
19-20		1,910,000	668,500	1,600,000	3,460,990	1,211,346	950,000	467,250	1,100,000	1,878,750
20-21		1,910,000	668,500	1,650,000	3,394,270	1,187,994	1,085,000	434,000	1,150,000	1,862,250
21-22		1,910,000	668,500	1,700,000	3,325,465	1,163,912	1,175,000	390,600	1,200,000	1,804,750
22-23		1,910,000	668,500	1,750,000	3,246,925	1,136,424	1,165,000	343,600	1,250,000	1,744,750
23-24		1,910,000	668,500	1,850,000	3,162,575	1,106,902	1,250,000	297,000	1,300,000	1,694,750
24-25		1,910,000	668,500	1,950,000	3,065,450	1,072,908	1,140,000	247,000	1,375,000	1,642,750
25-26		1,910,000	668,500	2,375,000	2,961,125	1,036,394	1,190,000	201,400	1,425,000	1,587,750
26-27		1,910,000	668,500	2,500,000	2,830,738	990,758	1,235,000	153,800	1,500,000	1,530,750
27-28		1,910,000	668,500	2,600,000	2,688,488	940,970	1,280,000	104,400	1,575,000	1,470,750
28-29		1,910,000	668,500	2,725,000	2,536,388	887,736	1,330,000	53,200	1,625,000	1,423,500
29-30		1,910,000	668,500	2,850,000	2,376,975	831,942			1,700,000	1,374,750
30-31		1,910,000	668,500	2,975,000	2,210,250	773,588			1,775,000	1,323,750
31-32		1,910,000	668,500	3,100,000	2,031,750	711,112			1,875,000	1,270,500
32-33		1,910,000	668,500	3,250,000	1,845,750	646,012			1,950,000	1,214,250
33-34		1,910,000	668,500	3,375,000	1,650,750	577,762			2,025,000	1,155,750
34-35		1,910,000	668,500	3,550,000	1,448,250	506,882			2,125,000	1,095,000
35-36		1,910,000	668,500	3,700,000	1,235,250	432,338			2,225,000	1,031,250
36-37		1,910,000	668,500	3,875,000	1,009,550	353,342			2,325,000	964,500
37-38		1,910,000	668,500	4,050,000	773,175	270,612			2,425,000	894,750
38-39		1,910,000	668,500	4,225,000	526,125	184,144			2,550,000	822,000
39-40		1,910,000	668,500	4,400,000	268,400	93,940			2,650,000	745,500
40-41		1,910,000	668,500						2,775,000	666,000
41-42		1,910,000	668,500						2,900,000	582,750
42-43	10,000,000	1,910,000	668,500						3,025,000	495,750
43-44	10,000,000	1,260,000	441,000						3,150,000	405,000
44-45	10,000,000	630,000	220,500						3,300,000	310,500
45-46									3,450,000	211,500
46-47									3,600,000	108,000
47-48										
48-49										
49-50										
Total	$ 30,000,000	$ 47,730,000	$ 16,705,500	$ 60,050,000	$ 46,048,639	$ 16,117,018	$ 11,800,000	$ 2,692,250	$ 59,325,000	$ 31,312,250

*Series 2010 and 2010c bonds were issued as federally taxable Build America Bonds. KUB will receive a 35 percent interest rebate payment from the United States Government for each interest payment. Effective October 1, 2018 these bonds became subject to a 6.2% reduction in rebate payment amounts due to the United States Government sequestration. The sequestration is effective until intervening Congressional action, at which time the sequestration rate is subject to change.

Knoxville Utilities Board Wastewater Division
Supplemental Information – Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

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	2013A		2014A		2015A		2015B		2016	
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
19-20	685,000	3,486,900	500,000	1,039,119	5,305,000	4,717,262	525,000	1,079,688	475,000	522,031
20-21	710,000	3,459,500	525,000	1,019,119	5,460,000	4,452,012	525,000	1,063,938	475,000	512,531
21-22	740,000	3,431,100	550,000	998,119	5,675,000	4,179,012	550,000	1,042,938	500,000	488,781
22-23	770,000	3,401,500	575,000	981,619	6,005,000	3,895,262	575,000	1,020,936	525,000	463,781
23-24	4,600,000	3,370,700	600,000	964,369	3,720,000	3,595,012	600,000	997,938	550,000	437,531
24-25	4,900,000	3,232,700	625,000	946,369	3,785,000	3,483,412	625,000	973,938	575,000	421,031
25-26	5,040,000	3,085,700	650,000	927,619	1,425,000	3,369,864	650,000	955,188	575,000	409,531
26-27	5,200,000	2,934,500	700,000	908,119	1,490,000	3,323,550	675,000	935,688	600,000	398,031
27-28	6,305,000	2,778,500	725,000	880,119	1,405,000	3,271,400	700,000	915,438	600,000	386,032
28-29	6,535,000	2,573,588	750,000	851,119	1,450,000	3,222,226	725,000	887,438	625,000	374,032
29-30	8,315,000	2,377,538	775,000	821,119	1,455,000	3,178,726	775,000	858,438	625,000	361,532
30-31	8,550,000	2,128,088	825,000	790,119	1,515,000	3,135,076	800,000	827,436	650,000	348,250
31-32	8,840,000	1,871,588	850,000	757,119	1,520,000	3,089,626	825,000	795,436	675,000	333,625
32-33	9,120,000	1,606,388	900,000	723,119	1,580,000	3,042,125	850,000	762,436	675,000	318,438
33-34	9,390,000	1,332,788	925,000	687,119	1,635,000	2,992,750	900,000	733,750	700,000	302,406
34-35	9,705,000	1,015,875	975,000	650,119	1,690,000	2,939,612	925,000	703,375	700,000	284,906
35-36	10,025,000	688,331	1,025,000	611,119	1,750,000	2,884,688	975,000	671,000	725,000	267,406
36-37	10,370,000	349,988	1,075,000	570,119	1,825,000	2,827,812	1,000,000	632,000	750,000	249,282
37-38			500,000	527,119	13,420,000	2,768,500	500,000	592,000	775,000	229,594
38-39			500,000	507,119	13,895,000	2,298,800	500,000	572,000	775,000	209,250
39-40			500,000	488,994	14,480,000	1,743,000	500,000	552,000	800,000	186,000
40-41			1,175,000	470,869	15,130,000	1,236,200	1,100,000	532,000	825,000	162,000
41-42			1,225,000	428,275	15,775,000	631,000	1,150,000	488,000	850,000	137,250
42-43			1,300,000	382,950			1,200,000	442,000	875,000	111,750
43-44			1,350,000	334,850			1,250,000	394,000	900,000	85,500
44-45			1,400,000	284,900			1,300,000	344,000	950,000	58,500
45-46			1,475,000	233,100			1,350,000	292,000	1,000,000	30,000
46-47			1,550,000	178,525			1,400,000	238,000		
47-48			1,600,000	121,175			1,450,000	182,000		
48-49			1,675,000	61,975			1,525,000	124,000		
49-50							1,575,000	63,000		
Total	$ 109,800,000	$ 43,125,272	$ 27,800,000	$ 19,145,493	$ 121,390,000	$ 70,276,927	$ 28,000,000	$ 20,671,999	$ 18,750,000	$ 8,089,001

Knoxville Utilities Board Wastewater Division
Supplemental Information – Schedule of Debt Maturities by Fiscal Year
June 30, 2019
(Unaudited)

Schedule 2

Continued from Previous Page

	2017A		2017B		2018		TOTALS		Grand Total (P + I)	Grand Total (Less Rebates)
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest		
19-20	1,525,000	417,800	515,000	796,963	235,000	413,506	13,415,000	20,190,259	33,605,259	31,725,413
20-21	1,605,000	341,550	540,000	771,212	245,000	401,756	13,970,000	19,622,138	33,592,138	31,735,644
21-22	1,685,000	261,300	570,000	744,213	255,000	389,506	14,600,000	18,965,784	33,565,784	31,733,372
22-23	1,775,000	177,050	600,000	715,712	270,000	376,756	15,260,000	18,277,891	33,537,891	31,732,967
23-24	595,000	88,300	630,000	685,713	280,000	365,956	15,975,000	17,569,844	33,544,844	31,769,442
24-25	615,000	70,450	660,000	654,212	290,000	354,756	16,540,000	17,002,068	33,542,068	31,800,660
25-26	640,000	52,000	690,000	621,213	305,000	343,156	14,965,000	16,424,546	31,389,546	29,684,652
26-27	660,000	26,400	715,000	600,512	315,000	330,956	15,590,000	15,883,044	31,473,044	29,813,786
27-28			725,000	586,213	325,000	321,506	16,240,000	15,312,846	31,552,846	29,943,376
28-29			745,000	570,806	335,000	311,756	16,845,000	14,714,053	31,559,053	30,002,817
29-30			760,000	553,112	345,000	301,706	17,600,000	14,113,896	31,713,896	30,213,454
30-31			785,000	530,313	355,000	291,356	18,230,000	13,494,638	31,724,638	30,282,550
31-32			805,000	506,762	365,000	280,706	18,855,000	12,847,112	31,702,112	30,322,500
32-33			830,000	482,613	375,000	269,756	19,530,000	12,174,875	31,704,875	30,390,363
33-34			855,000	457,712	390,000	258,038	20,195,000	11,481,063	31,676,063	30,429,801
34-35			880,000	432,063	400,000	245,362	20,950,000	10,724,562	31,674,562	30,499,180
35-36			910,000	405,662	415,000	232,364	21,750,000	9,937,070	31,687,070	30,586,232
36-37			935,000	378,363	425,000	218,874	22,580,000	9,110,488	31,690,488	30,668,646
37-38			965,000	350,312	440,000	204,532	23,075,000	8,249,982	31,324,982	30,385,870
38-39			995,000	320,156	455,000	189,682	23,895,000	7,355,132	31,250,132	30,397,488
39-40			1,025,000	289,063	475,000	173,756	24,830,000	6,356,713	31,186,713	30,424,273
40-41			1,055,000	257,032	490,000	157,132	22,550,000	5,391,233	27,941,233	27,272,733
41-42			1,090,000	224,062	505,000	139,982	23,495,000	4,541,319	28,036,319	27,367,819
42-43			1,125,000	190,000	525,000	122,306	18,050,000	3,654,756	21,704,756	21,036,256
43-44			1,160,000	154,844	540,000	103,932	18,350,000	2,738,126	21,088,126	20,647,126
44-45			1,195,000	118,594	560,000	85,032	18,705,000	1,831,526	20,536,526	20,316,026
45-46			1,230,000	81,250	580,000	65,432	9,085,000	913,282	9,998,282	9,998,282
46-47			1,270,000	41,275	600,000	44,406	8,420,000	610,206	9,030,206	9,030,206
47-48					625,000	22,656	3,675,000	325,831	4,000,831	4,000,831
48-49							3,200,000	185,975	3,385,975	3,385,975
49-50							1,575,000	63,000	1,638,000	1,638,000
Total	$ 9,100,000	$ 1,434,850	$ 24,260,000	$ 12,519,957	$ 11,720,000	$ 7,016,620	$ 511,995,000	$ 310,063,258	$ 822,058,258	$ 789,235,740

Knoxville Utilities Board Wastewater Division
Supplemental Information – Schedule of Changes in Long-term Debt by Individual Issue
June 30, 2019
(Unaudited)

Schedule 3

Description of Indebtedness	Original Amount of Issue	Interest Rate	Date of Issue	Last Maturity Date	Outstanding Balance 7/1/2018	Issued During Period	Paid/Matured During Period	Refunded During Period	Outstanding Balance 6/30/2019
Business-Type Activities									
BONDS PAYABLE									
Payable through Wastewater Fund									
Revenue Bond, Series 2010	30,000,000	6.3-6.5	02/10/10	04/01/45	$ 30,000,000	$	$ -	$	$ 30,000,000
Revenue Bond, Series 2010C	70,000,000	1.18-6.1	12/08/10	04/01/40	61,600,000		1,550,000		60,050,000
Revenue Bond Refunding, Series 2012A	17,070,000	2.0-4.0	04/20/12	04/01/29	12,770,000		970,000		11,800,000
Revenue Bond, Series 2012B	65,000,000	1.25-5.0	12/18/12	04/01/47	60,375,000		1,050,000		59,325,000
Revenue Bond Refunding, Series 2013A	113,340,000	2.0-4.0	03/15/13	04/01/37	110,460,000		660,000		109,800,000
Revenue Bond, Series 2014A	30,000,000	2.0-4.0	09/18/14	04/01/49	28,275,000		475,000		27,800,000
Revenue Bond Refunding, Series 2015A	129,825,000	3.0-5.0	05/01/15	04/01/42	126,400,000		5,010,000		121,390,000
Revenue Bond, Series 2015B	30,000,000	3.0-5.0	05/20/15	04/01/50	28,500,000		500,000		28,000,000
Revenue Bond, Series 2016	20,000,000	2.0-5.0	08/05/16	04/01/46	19,200,000		450,000		18,750,000
Revenue Bond Refunding, Series 2017A	11,965,000	3.0-5.0	04/07/17	04/01/27	10,560,000		1,460,000		9,100,000
Revenue Bond, Series 2017B	25,000,000	2.0-5.0	09/15/17	04/01/47	24,750,000		490,000		24,260,000
Revenue Bond, Series 2018	12,000,000	3.0-5.0	09/14/18	04/01/48	-	12,000,000	280,000		11,720,000
					$ 512,890,000	$ 12,000,000	$ 12,895,000	$ -	$ 511,995,000

Knoxville Utilities Board Wastewater Division
Supplemental Information – Schedule of Current Rates in Force
June 30, 2019
(Unaudited)
Schedule 4

Rate Class	Base Charge	Number of Customers
Residential Inside City rate	For wastewater service furnished to premises entirely within the corporate limits of the City of Knoxville:	55,711

Commodity Charge

First	2	100 Cubic Feet Per Month at $1.40 Per 100 Cubic Feet
Over	2	100 Cubic Feet Per Month at $8.70 Per 100 Cubic Feet

Additional Monthly Customer Charge

5/8" meter	$	33.60
1" meter		48.60
1 1/2" meter		60.60
2" meter		80.60

Rate Class	Base Charge	Number of Customers
Non-Residential Inside City rate	For wastewater service furnished to premises entirely within the corporate limits of the City of Knoxville:	7,582

Commodity Charge

First	2	100 Cubic Feet Per Month at $0.95 Per 100 Cubic Feet
Next	8	100 Cubic Feet Per Month at $12.25 Per 100 Cubic Feet
Next	90	100 Cubic Feet Per Month at $10.95 Per 100 Cubic Feet
Next	300	100 Cubic Feet Per Month at $9.40 Per 100 Cubic Feet
Next	4,600	100 Cubic Feet Per Month at $7.65 Per 100 Cubic Feet
Next	5,000	100 Cubic Feet Per Month at $4.50 Per 100 Cubic Feet

Additional Monthly Customer Charge

5/8" meter	$	33.60
1" meter		48.60
1 1/2" meter		60.60
2" meter		80.60
3" meter		153.00
4" meter		250.00
6" meter		533.00
8" meter		926.00
10" meter		1,404.00
12" meter		2,068.00

Knoxville Utilities Board Wastewater Division
Supplemental Information – Schedule of Current Rates in Force
June 30, 2019
(Unaudited)

Schedule 4

Rate Class	Base Charge	Number of Customers
Residential Outside City rate	For wastewater service furnished to premises entirely or partly outside the corporate limits of the City of Knoxville:	8,213

Commodity Charge

First	2	100 Cubic Feet Per Month at $1.55 Per 100 Cubic Feet
Over	2	100 Cubic Feet Per Month at $9.30 Per 100 Cubic Feet

Additional Monthly Customer Charge

5/8" meter	$	37.60
1" meter		51.60
1 1/2" meter		68.60
2" meter		88.60

Rate Class	Base Charge	Number of Customers
Non-Residential Outside City rate	For wastewater service furnished to premises entirely or partly outside the corporate limits of the City of Knoxville:	301

Commodity Charge

First	2	100 Cubic Feet Per Month at $1.10 Per 100 Cubic Feet
Next	8	100 Cubic Feet Per Month at $13.50 Per 100 Cubic Feet
Next	90	100 Cubic Feet Per Month at $12.00 Per 100 Cubic Feet
Next	300	100 Cubic Feet Per Month at $10.25 Per 100 Cubic Feet
Next	4,600	100 Cubic Feet Per Month at $8.55 Per 100 Cubic Feet
Next	5,000	100 Cubic Feet Per Month at $5.05 Per 100 Cubic Feet

Additional Monthly Customer Charge

5/8" meter	$	37.60
1" meter		51.60
1 1/2" meter		68.60
2" meter		88.60
3" meter		173.00
4" meter		276.00
6" meter		586.00
8" meter		1,019.00
10" meter		1,539.00
12" meter		2,271.00

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Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Board of Commissioners
Wastewater Division of the Knoxville Utilities Board
Knoxville, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Wastewater Division (the Division) of the Knoxville Utilities Board, a component unit of the City of Knoxville, Tennessee, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements, and have issued our report thereon dated October 30, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Division's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Division's internal control. Accordingly, we do not express an opinion on the effectiveness of the Division's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Division's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Commissioners
Wastewater Division of the Knoxville Utilities Board
Knoxville, Tennessee

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Division's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*, but other matters that are required to be reported under the State of Tennessee Audit Manual are referenced as 2019-01 in the accompanying Schedule of Findings and Questioned Costs.

Purpose of Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Division's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Division's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Coulter & Justus, P.C.

Knoxville, Tennessee
October 30, 2019

Knoxville Utilities Board Wastewater Division
Schedule of Findings and Questioned Costs
June 30, 2019

Section I -- Summary of Auditor's Results

Financial Statements

Type of auditors' report issued:	Unmodified
Internal control over financial reporting: Material weakness(es) identified?	No
Significant deficiency(s) identified not considered to be material weaknesses?	None reported
Noncompliance material to financial statements:	No

Section II -- Financial Statement Findings

None reported.

Section III – Findings Required by the State of Tennessee Audit Manual

2019-01

Condition, Criteria, Cause, Questioned Costs and Effect

In July 2018, an employee in the KUB Underground Construction Department in the Wastewater Division used a KUB-owned backhoe to take a front-loader full of asphalt off KUB property for use at his personal residence. The value of the asphalt is estimated at $200.

Recommendations

None

Management's Response and Corrective Action Plan

The employee resigned in lieu of termination and the stolen materials were written-off.

Section IV -- Summary Schedule of Prior Year Audit Findings

Not applicable as there were no prior year findings reported.