

# **Consolidated**

# Financial Statements and Supplemental Information June 30, 2017 and 2016

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phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

# Independent Auditors' 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, 2017 and 2016, 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

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, 2017 and 2016, and the changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.



Board of Commissioners 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 27 and the required supplementary information on pages 67 through 70 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 18, 2017, 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 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 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 18, 2017

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, 2017 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, 2017, KUB served 456,304 customers. KUB added 4,408 new customers in fiscal year 2017, representing growth of one percent. Fiscal year 2017 was KUB's strongest year of customer growth since the recession of 2008.

KUB's electric system experienced a record peak in demand of 1,328 megawatt hours in February 2015. KUB's electric system had a strong year for reliability with only 1.95 hours of service interruption for the average customer in fiscal year 2017. The natural gas system's peak demand occurred February 2015 at 136,356 dekatherms.

The third of three annual rate increases for each Division previously adopted by the KUB Board went into effect in fiscal year 2017. These rate increases provide additional revenue to help fund each system's respective Century II infrastructure program.

KUB's electric system was impacted by a storm event in May 2017 that resulted in a cost of \$1.2 million to the system. KUB has applied for \$0.9 million in reimbursements in fiscal year 2018 from the Federal Emergency Management Agency (FEMA) to offset the cost of the 2017 event.

KUB's energy sales in fiscal year 2017 were impacted by an extremely mild winter in Knoxville. Natural gas sales dropped approximately 2.5 percent from the prior year, while warmer temperatures in the spring and summer months offset reduced electric sales volumes from the mild winter.

KUB's Compressed Natural Gas (CNG) Public Fueling Station opened in fiscal year 2017 to promote clean burning fuel in the Knoxville area. It joins 13 other CNG stations in Tennessee cities. KUB's CNG fleet has planned growth of 100 vehicles by 2020.

The Knoxville News Sentinel recognized KUB as one of Knoxville's Top Workplaces in 2017. KUB was among 30 outstanding companies selected for the award. Companies were measured on several qualities, such as company leadership, career opportunities, workplace flexibility, compensation and benefits, and the impact company policies have on innovation, productivity and morale of its workforce.

KUB's electric system maintains its Diamond level designation by the American Public Power Association's (APPA) Reliable Public Power Provider (RP3) program from 2015, the highest level of recognition of the program.

KUB's treatment plants continue to meet high standards of operation. KUB's Kuwahee, Eastbridge, Loves Creek, and Fourth Creek wastewater treatment plants were awarded Operational Excellence awards from the Tennessee Kentucky Water Environment Association for having zero permit violations within the 2016 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. The Eastbridge wastewater treatment plant achieved a Platinum award for continued outstanding compliance performance over multiple years. Kuwahee, Loves Creek, and Fourth Creek wastewater treatment plants won Gold Awards for having no permit violations in 2016.

KUB continued to maintain certification with the National Biosolids Partnership following a rigorous review process and independent audit that was conducted in December 2016. (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.

KUB's Century II programs were resumed in 2011, after a break due to the economic recession. At that time, the KUB Board endorsed ten-year funding plans for the electric and water systems, which include a combination of rate increases and debt issues to fully fund the Century II programs. The Board adopted three years of electric and water rate increases to help fund those plans. All three of those rate increases, adopted in 2011, have gone into effect.

In 2013, the Board extended the same long-term funding approach for Century II to include the natural gas and wastewater systems. The Board formally endorsed and adopted by resolution ten-year funding plans for the natural gas and wastewater systems, which include a combination of rate increases and debt issues.

In April 2014, KUB management provided the Board an updated assessment of the overall condition of each utility system, including a recommendation for annual rate increases for each division for the next three fiscal years.

In June 2014, the Board approved the three annual rate increases for all KUB Divisions, of which all three rate increases have gone into effect. The third electric rate increase generated \$5 million in additional annual revenue, while the third gas rate increase generated \$1.8 million in additional annual revenue. The third water rate increase produced \$2 million in additional annual revenue and the third wastewater rate increase produced \$4.7 million of additional annual sales revenue.

The natural gas system South Loop project was completed in October 2015, which included the installation of a new 8-mile transmission main in the southwest portion of KUB's service territory. The South Loop will provide additional system capacity to meet the increased natural gas demands of the University of Tennessee, in addition to other potential growth opportunities in that portion of KUB's gas service territory.

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 \$126.5 million in this effort. The deployment is funded in large part by debt issues and incremental rate increases. As of June 30, 2017, KUB completed the first-year deployment of advanced meters. KUB replaced approximately 17 percent of its electric meters, installed network communication devices on 15 percent of its gas meters, and replaced 28 percent of its water meters, spending approximately \$15 million on the Grid Modernization deployment.

In June 2017, the Board adopted the next three annual rate increases for all KUB Divisions. The electric rate increases are effective October 2017, October 2018, and October 2019 and are expected to provide an additional \$10.9 million, \$11.2 million, and \$5.7 million in annual revenue, respectively, to help fund the Electric Division. The gas rate increases are effective October 2017, October 2018, and October 2019 and are expected to provide an additional \$2.2 million, \$2.3 million, and \$2.3 million in annual revenue, respectively, to help fund the Gas Division. The water rate increases are effective July 2017, July 2018, and July 2019 and are expected to provide an additional \$3.1 million, \$3.1 million, and \$3.3 million in annual revenue, respectively, to help fund the Water Division. The wastewater rate increases are effective July 2017, July 2018, and July 2019 and are expected to provide an additional \$4.3 million, \$4.2 million, and \$4.5 million in annual revenue, respectively, to help fund 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 \$120 million in various redundant facilities at the site of its existing Mark B. Whitaker Water Treatment Plant over the next 12 years.

For the fiscal year, KUB stayed on track with its overall Century II capital budget and production goals. The electric system replaced 2,345 poles and 11.3 miles of underground electric cable. 5.4 miles of gas steel main were replaced for the natural gas system. 11.5 miles of galvanized water main and 6.3 miles of cast iron water main were replaced for the water system. 17.4 miles of wastewater system 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. The total cost of such improvements is estimated to be approximately \$120 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, 2017, the Wastewater Division had issued \$505 million in bonds to fund 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 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 99.5% of manholes and gravity mains, smoke testing 99.9% of 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 352.3 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 83 percent reduction in SSOs.

As of June 30, 2017, the Wastewater Division had completed its thirteenth full year under the Consent Decree, spending \$531.7 million on capital investments to meet Consent Decree requirements.

# **Financial Highlights**

### Fiscal Year 2017 Compared to Fiscal Year 2016

KUB's consolidated net position increased \$36.1 million. This increase was \$2.1 million more than the prior year's change in net position.

Operating revenue increased \$36.1 million or 4.9 percent, the result of lower natural gas sales volumes offset in part by additional revenues from system rate increases and a modest increase in billable wastewater volumes and a 5.2 percent increase in billed water sales. Purchased energy expense (power and natural gas) increased \$21.3 million or 4.8 percent, the combined effect of \$18.8 million increase in purchased power and an increase of \$2.5 million in purchased gas, reflecting higher TVA rates and natural gas commodity prices. Margin from sales (operating revenue less purchased energy expense) was up \$14.8 million or 5 percent compared with the prior fiscal year.

Operating expenses (excluding purchased power and purchased gas expense) increased \$13 million or 5.8 percent. Operating and maintenance (O&M) expenses were \$7.3 million or 5.9 percent higher than the previous year. Depreciation expense increased \$3.7 million or 5.3 percent. Taxes and tax equivalents increased \$2 million or 6.5 percent, reflecting higher plant in service levels.

Interest income was \$0.8 million more than the prior fiscal year. Interest expense increased \$1.3 million or 3.4 percent, reflecting the interest costs on new revenue bonds issued during fiscal year 2017 to fund system capital improvements.

Capital contributions increased \$0.8 million, the result of more assets contributed by developers.

Total plant assets (net) increased \$82.2 million or 4.7 percent over the last fiscal year.

Long-term debt represented 51 percent of KUB's consolidated capital structure, compared to 50.4 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 2016 Compared to Fiscal Year 2015

KUB's consolidated net position increased \$34 million. This increase was \$2 million less than the prior year's change in net position. A restatement to the fiscal year 2014's net position based on a change in method of accounting for the pension reduced the total net position by \$0.8 million during fiscal year 2015. This change resulted in a net increase of \$35.2 million or 3.9 percent in KUB's consolidated net position in fiscal year 2015.

Operating revenue decreased \$30.3 million or 4 percent, the result of lower electric and natural gas sales volumes offset in part by additional revenues from system rate increases and a modest increase in billed water sales and wastewater volumes. Purchased energy expense (power and natural gas) decreased \$39.9 million or 8.3 percent, the combined effect of \$17.4 million decrease in purchased power and a decrease of \$22.5 million in purchased gas. Margin from sales (operating revenue less purchased energy expense) was up \$9.5 million or 3.3 percent compared with the prior fiscal year.

Operating expenses (excluding purchased power and purchased gas expense) increased \$9.6 million or 4.5 percent. Operating and maintenance (O&M) expenses were \$1.2 million or one percent higher than the previous year. Depreciation expense increased \$6.7 million or 10.8 percent. Taxes and tax equivalents increased \$1.8 million or 6 percent, reflecting higher plant in service levels.

Interest income was \$0.5 million more than the prior fiscal year. Interest expense increased \$1.2 million or 3.1 percent, reflecting interest costs on revenue bonds issued during fiscal year 2015 to fund system capital improvements.

Capital contributions increased \$0.6 million, the result of more contributed assets from developers.

Total plant assets (net) increased \$92 million or 5.6 percent over the last fiscal year.

Long-term debt represented 50.4 percent of KUB's consolidated capital structure, compared to 52 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)		2017		2016		2015
Current, restricted and other assets	\$	350,196	\$	318,650	\$	413,061
Capital assets, net		1,825,293		1,743,105		1,651,147
Deferred outflows of resources	_	33,495	_	34,235		28,388
Total assets and deferred outflows of resources	_	2,208,984	_	2,095,990		2,092,596
Current and other liabilities		167,410		159,519		152,535
Long-term debt outstanding		1,037,622		972,365		1,005,062
Deferred inflows of resources	_	5,267	_	1,512	_	6,378
Total liabilities and deferred inflows of resources	-	1,210,299	-	1,133,396		1,163,975
Net position						
Net investment in capital assets		786,361		772,012		650,464
Restricted		17,977		16,201		14,892
Unrestricted		194,347		174,381		263,265
Total net position	\$	998,685	\$	962,594	\$	928,621

### **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 2017 Compared to Fiscal Year 2016

Current, restricted and other assets increased \$31.5 million or 9.9 percent. This increase reflects a \$15 million increase in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments), an increase in inventories of \$8 million primarily from Grid Modernization materials, an increase of \$3.6 million in operating contingency reserves, a \$2.5 million increase in other current assets, and an increase in accounts receivable of \$1.5 million. KUB under recovered its wholesale gas costs by \$3.7 million in fiscal year 2017 compared to a \$2.2 million under recovery in fiscal year 2016. The under recovery of costs will be collected from customers next fiscal year through adjustments to rates via the Purchased Gas Adjustment.

An offset to the increases was the under recovery of \$1.4 million in purchased power costs from electric system customers through its Purchased Power Adjustment mechanism in fiscal year 2016, as compared to a \$4 million over recovery in fiscal year 2017. Fiscal year 2016's under recovery of costs was collected from customers during fiscal year 2017 through adjustments to rates via the Purchased Power Adjustment.

## Fiscal Year 2016 Compared to Fiscal Year 2015

Current, restricted and other assets decreased \$94.4 million or 22.9 percent. The decrease was primarily attributable to the utilization of \$46.1 million in bond proceeds to fund system capital projects. General fund cash (including cash and cash equivalents, short-term investments, and long-term investments) decreased \$45.9 million. The net pension asset decreased \$6 million due to the recognition of a net pension liability of \$5 million during fiscal year 2016. Accounts receivable decreased \$4.9 million. Gas storage decreased \$1.4 million, reflecting lower commodity prices for natural gas for slightly higher storage volumes compared to the prior fiscal year.

These decreases were offset by an increase in inventories of \$2.1 million and an increase of \$4.6 million in operating contingency reserves. KUB under recovered its wholesale gas costs by \$2.2 million in fiscal year 2016 compared to a \$1.1 million over recovery in fiscal year 2015. The under recovery of costs will be collected from customers next fiscal year through adjustments to rates via the Purchased Gas Adjustment. Another offset to the decrease was the under recovery of \$1.4 million in purchased power costs from electric system customers through its Purchased Power Adjustment mechanism in fiscal year 2016, as compared to a \$0.5 million over recovery in fiscal year 2015. This under recovery of costs will be collected from customers next fiscal year through adjustments to rates via the Purchased Power Adjustment.

# **Capital Assets**

## Fiscal Year 2017 Compared to Fiscal Year 2016

Capital assets (net) increased \$82.2 million or 4.7 percent. Major capital expenditures (reflected in both plant additions and work in progress) in fiscal year 2017 included \$34.4 million for various electric distribution system improvements, \$30.9 million related to wastewater Century II projects, \$9.2 million for water plant and system improvements, \$8.3 million for pole replacements for the electric system, \$7.7 million for water main replacement, \$7.3 million for construction of gas mains and service extensions, \$6.2 million for utility asset replacements and relocations for the gas and water system to accommodate Tennessee Department of Transportation (TDOT) highway improvement project system, and \$5.2 million for trucks and equipment.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Capital assets (net) increased \$92 million or 5.6 percent. Major capital expenditures (reflected in both plant additions and work in progress) in fiscal year 2016 included \$32.6 million related to wastewater Century II projects, \$25.1 million for various electric distribution system improvements, \$15.1 million for installation of new gas main and service extensions, \$13.5 million for main replacement for the water system, \$8.4 million for upgrades to various information systems, \$8.4 million for utility asset replacements and relocations to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, and \$7.5 million for water plant and system improvements.

### **Deferred Outflows of Resources**

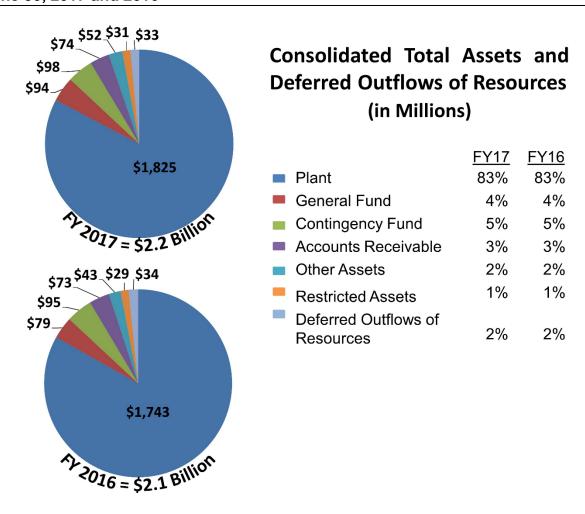
# Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred outflows of resources decreased \$0.7 million compared to the prior year, reflecting a decrease in pension outflow of \$1.2 million offset by a \$0.5 million increase in unamortized bonds refunding costs when compared to the prior fiscal year.

## Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred outflows of resources increased \$5.8 million compared to the prior year, reflecting an increase in pension outflow of \$7.2 million and a \$1.4 million decrease in unamortized bonds refunding costs when compared to the prior fiscal year.

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### **Current and Other Liabilities**

### Fiscal Year 2017 Compared to Fiscal Year 2016

Current and other liabilities increased \$7.9 million or 4.9 percent compared to the prior fiscal year. This reflects an increase of \$6.5 million in accounts payable, an increase in the current portion of revenue bonds of \$3 million, and an increase in accrued interest on revenue bonds of \$0.2 million. Purchased power cost was also over recovered by \$4 million. The over recoveries of costs will be flowed back to KUB's electric customers during fiscal year 2018 through adjustments to rates via the Purchased Power Adjustment and Purchased Gas Adjustment.

These increases were offset by a decline in the actuarially determined net pension obligation of \$5 million and accrued expenses were \$0.9 million lower than the prior fiscal year. The outstanding balance on TVA conservation loans declined by \$2.2 million as KUB ceased issuance of any new loans in fiscal year 2016.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Current and other liabilities increased \$7 million or 4.6 percent. This was primarily due to an actuarially determined net pension obligation of \$5 million recognized during fiscal year 2016. The current portion of

revenue bonds increased \$1.2 million and accrued interest on revenue bonds increased \$1.5 million. Accrued expenses were \$1.9 million higher than the prior fiscal year.

The increases were offset by the reductions to the over recovered purchased power cost and over recovered purchased gas cost liabilities of \$0.5 million and \$1.1 million, respectively. The over recoveries of cost were flowed back to KUB's electric and gas customers during fiscal year 2016 through adjustments to rates via the Purchased Power Adjustment and Purchased Gas Adjustment.

# **Long-term Debt**

# Fiscal Year 2017 Compared to Fiscal Year 2016

Long-term debt increased \$65.3 million or 6.7 percent. Revenue bonds totaling \$97 million were sold in July 2016. Also in July 2016, revenue refunding bonds of \$20.9 were sold and in March 2017, \$48.8 million in revenue refunding bonds were sold to refinance bonds sold in 2009 and 2005, respectively. The additional issuances offset by the defeased bonds and schedule debt repayments accounted for the change in long-term debt. During the fiscal year, \$31.9 million of bond debt was repaid, which included additional principal payments required from the July 2016 revenue bond issuance.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Long-term debt decreased \$32.7 million or 3.3 percent. The decrease was primarily due to \$31.1 million of long-term bond debt that shifted to current liabilities as payable within the next year. During the fiscal year, \$29.8 million of bond debt was repaid.

#### **Deferred Inflows of Resources**

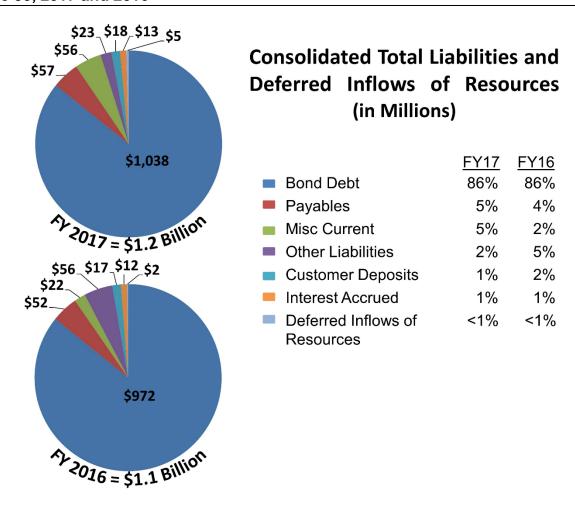
# Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred inflows increased \$3.8 million compared to the prior fiscal year due to differences in pension inflows.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred inflows decreased \$4.9 million compared to the prior fiscal year due to differences in pension inflows.

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### **Net Position**

### Fiscal Year 2017 Compared to Fiscal Year 2016

Net position increased by \$36.1 million in fiscal year 2017. Unrestricted net position increased \$20 million or 11.4 percent compared to the previous fiscal year, reflecting a \$15 million increase in general fund cash. Net investment in capital assets increased \$14.3 million or 1.9 percent, the result of net capital assets increasing \$82.2 million and a \$68.3 million increase in current portion of revenue bonds and total long-term debt. Restricted net position increased \$1.8 million compared to the prior year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Net position increased by \$34 million in fiscal year 2016. Net investment in capital assets increased \$121.5 million or 18.7 percent, the result of net capital assets increasing \$92 million and a \$32.7 million decrease in long term debt. Restricted net position increased \$1.3 million compared to the prior year. Unrestricted net position decreased \$88.9 million or 33.8 percent compared to the previous fiscal year, reflecting a decrease in unused bond proceeds and general fund cash.

# 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)	2017		2016			2015
Operating revenues	\$	769,496	\$	733,362	\$	763,704
Less: Purchased energy expense		460,594	_	439,301	_	479,166
Margin from sales		308,902		294,061		284,538
Operating expenses						
Treatment		16,211		16,618		15,319
Distribution and collection		65,309		59,536		62,319
Customer service		14,151		13,893		13,725
Administrative and general		34,897		33,239		30,741
Depreciation		72,022		68,370		61,708
Taxes and tax equivalents	_	33,483	_	31,440	_	29,649
Total operating expenses		236,073		223,096		213,461
Operating income		72,829		70,965		71,077
Interest income		2,140		1,388		917
Interest expense		(40,470)		(39,143)		(37,968)
Other income/(expense)		(416)		(408)		1,340
Change in net position before capital contributions		34,083		32,802		35,366
Capital contributions		2,008		1,170		606
Change in net position	\$_	36,091	\$	33,972	\$	35,972

# 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 2017 Compared to Fiscal Year 2016

KUB's consolidated net position increased \$36.1 million. This increase was \$2.1 million more than the prior year's change in net position.

# Fiscal Year 2016 Compared to Fiscal Year 2015

KUB's consolidated net position increased \$34 million. This increase was \$2 million less than the prior year's change in net position. A restatement to the fiscal year 2014's net position based on a change in method of accounting for pension expense reduced the total net position by \$0.8 million during fiscal year 2015.

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# **Margin from Sales**

## Fiscal Year 2017 Compared to Fiscal Year 2016

Operating revenue was \$36.1 million or 4.9 percent higher than the previous fiscal year. Both electric and natural gas sales were impacted by another extremely mild winter. Electric Division operating revenue increased \$24.5 million due to the result of additional revenue from KUB's one percent electric rate increase, the flow through of TVA rate adjustments, and the flow through of prior year under recovered purchased power costs to electric customers. Gas Division revenue increased \$3.4 million for the fiscal year, the net result of 2.5 percent lower billed sales due to the warmer winter offset by additional revenue generated from the gas rate increase. Water Division revenue increased \$3.3 million, the result of additional revenue from the water rate increase and a 5.2 percent increase in billed water sales volumes. Wastewater Division revenue was \$4.8 million higher than the previous year due to additional revenue from the wastewater rate increase offset by a 0.3 percent decrease in billable wastewater volumes.

Wholesale energy expense increased \$21.3 million or 4.8 percent. Purchased power expense increased \$18.8 million compared to last year, reflecting higher wholesale rates from TVA. Purchased gas expense was \$2.5 million higher, reflecting higher commodity prices for natural gas offset by overall lower customer demand for the fiscal year.

Margin from sales (operating revenue less purchased energy expense) increased \$14.8 million compared to the previous year. The increase reflects additional revenue from the electric, natural gas, water, and wastewater rate increases offset by lower natural gas sales volumes.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Operating revenue was \$30.3 million or 4 percent lower than the previous fiscal year. Sales in both the Electric and Gas Divisions were impacted by the second mildest winter in the last forty years. Electric Division operating revenue decreased \$12.2 million due to the net effect of additional revenue from KUB's one percent electric rate increase, a 3.1 percent decline in total power sales, 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 decreased \$25.7 million for the fiscal year, the net result of 10.2 percent lower billed sales due to the warmer winter, lower purchased gas commodity prices flowed through to customer rates, and additional revenue generated from rate increases. Water Division revenue increased \$3.1 million, the result of additional revenue from the water rate increases and a 0.8 percent increase in water sales volumes. Wastewater Division revenue was \$4.4 million higher than the previous year due to additional revenue from wastewater rate increases, as well as a 1.1 percent increase in wastewater billed volumes.

Wholesale energy expense decreased \$39.9 million or 8.3 percent. Purchased power expense decreased \$17.4 million compared to last year due to lower customer demand. Purchased gas expense was \$22.5 million lower due to less customer demand and reduced commodity prices for natural gas during the fiscal year.

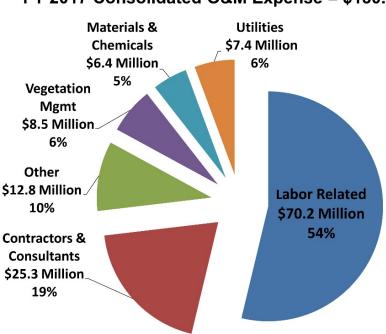
Margin from sales (operating revenue less purchased energy expense) increased \$9.5 million compared to the previous year. The increase reflects additional revenue from the electric, natural gas, water, and wastewater rate increases offset by lower electric and natural gas sales volumes.

# **Operating Expenses**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Operating expenses (excluding wholesale purchased energy expense) increased \$13 million or 5.8 percent compared to fiscal year 2016. 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 lower than the prior year, reflecting lower outside contractor and consultant expenses for the wastewater system.
- Distribution and collection expenses increased \$5.8 million or 9.7 percent, primarily due to increased labor related expenses, outside contractor use, and costs related to storm events.
- Customer service expenses rose \$0.2 million or 1.9 percent.
- Administrative and general expenses increased \$1.7 million or 5 percent, primarily due to an increase in labor related expenses.



# FY 2017 Consolidated O&M Expense = \$130.6 Million

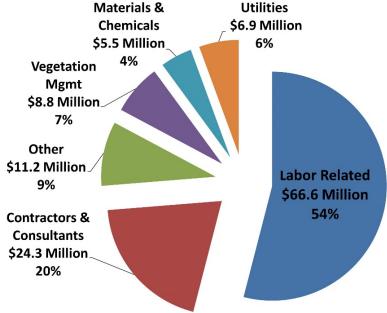
- Depreciation expense increased \$3.7 million or 5.3 percent. KUB added \$213.7 million in assets during fiscal year 2016. A full year of depreciation expense was recorded on these capital investments and a partial year of depreciation expense was incurred on \$156.7 million in assets placed in service during fiscal year 2017.
- Taxes and tax equivalents increased \$2 million or 6.5 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 2016 Compared to Fiscal Year 2015

Operating expenses (excluding wholesale purchased energy expense) increased \$9.6 million or 4.5 percent compared to fiscal year 2015. 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.

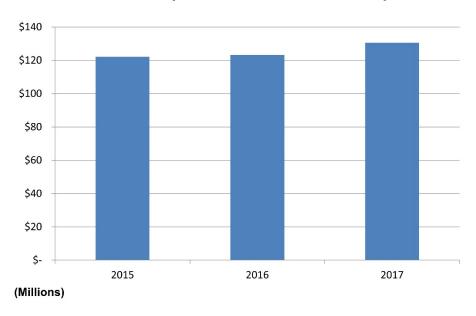
- Treatment expenses were \$1.3 million or 8.5 percent higher than the prior year, reflecting higher labor related expenses for the water and wastewater system and increased outside contractor expenses for the wastewater system.
- Distribution and collection expenses decreased \$2.8 million or 4.5 percent, primarily due to reduced use of outside contractors and consultants offset by increased labor related expenses.
- Customer service expenses rose \$0.2 million or 1.2 percent.
- Administrative and general expenses increased \$2.5 million or 8.1 percent, primarily due to an increase in pension expense.





- Depreciation expense increased \$6.7 million or 10.8 percent. KUB added \$94.5 million in assets during fiscal year 2015. A full year of depreciation expense was recorded on these capital investments and a partial year of depreciation expense was incurred on \$213.7 million in assets placed in service during fiscal year 2016.
- Taxes and tax equivalents increased \$1.8 million or 6 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 sales.

# **Consolidated Operation & Maintenance Expense**



# Other Income and Expense

# Fiscal Year 2017 Compared to Fiscal Year 2016

Interest income increased \$0.8 million compared to the prior fiscal year, reflecting modest increases in short-term interest rates over the prior fiscal year.

Interest expense increased \$1.3 million or 3.4 percent, reflecting interest expense from new bonds issued during fiscal year 2017.

Other income (net) was consistent with the prior fiscal year. Future reimbursements by FEMA of \$0.9 million were recognized as non-operating income in fiscal year 2017 for the May 2017 storm.

Capital contributions by developers were \$0.8 million higher than last fiscal year.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Contributions in aid of construction increased \$7.4 million compared to the prior fiscal year. This was primarily due to a \$4 million contribution from the University of Tennessee, representing the remaining portion of the University's contribution for the natural gas South Loop project.

Interest income increased \$0.5 million compared to the prior fiscal year.

Interest expense increased \$1.2 million or 3.1 percent, reflecting interest expense from bonds issued in fiscal year 2015.

Other income (net) decreased \$1.7 million. Reimbursements of \$1.6 million were recognized as non-operating income in fiscal year 2015 for the February 2015 ice storm. KUB recorded a \$0.8 million loss on disposition of assets in fiscal year 2016 compared to a \$0.1 million loss in fiscal year 2015.

Capital contributions by developers were \$0.6 million higher than last fiscal year.

# **Capital Assets**

# Capital Assets As of June 30 (Net of Depreciation)

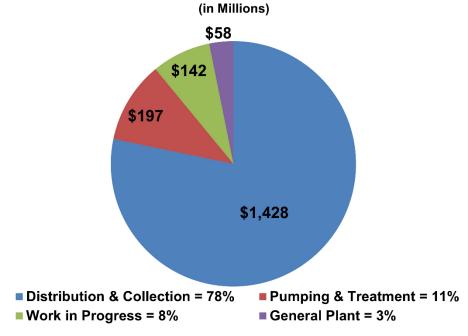
(in thousands of dollars)	2017		2016		2015
Production Plant (Intakes)	\$ 58	\$	58	\$	62
Pumping and Treatment Plant	196,884		194,450		174,660
Distribution and Collection Plant					
Mains and metering	\$ 804,007	\$	755,850	\$	685,480
Services and meters	108,974		92,121		89,086
Electric station equipment	53,178		56,487		34,643
Poles, towers and fixtures	113,640		104,867		93,780
Overhead conductors	90,886		84,937		79,199
Line transformers	60,424		59,587		56,774
Other accounts	196,598	_	195,751	_	192,417
<b>Total Distribution &amp; Collection Plant</b>	\$ 1,427,707	\$	1,349,600	\$	1,231,379
General Plant	58,881	_	55,791		51,234
Total Plant Assets	\$ 1,683,530	\$	1,599,899	\$	1,457,335
Work In Progress	141,763	_	143,206		193,812
Total Net Plant	\$ 1,825,293	\$	1,743,105	\$	1,651,147

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## Fiscal Year 2017 Compared to Fiscal Year 2016

As of June 30, 2017, KUB had \$1.8 billion invested in capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of \$82.2 million or 4.7 percent over the end of the last fiscal year.

FY 2017 Consolidated Capital Assets = \$1.8 Billion



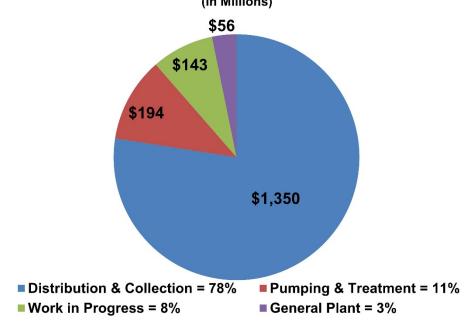
Major capital asset additions during the year were as follows:

- \$34.4 million for various electric distribution system improvements
- \$30.9 million related to wastewater Century II projects
  - \$12.4 million for wastewater treatment plant upgrades
  - \$10.6 million for sewer trunk line rehabilitation and replacement
  - \$5.3 million for sewer mini-basin rehabilitation and replacement
  - \$2.6 million for pump station construction and improvements
- \$9.2 million for water plant and system improvements
- \$8.3 million for pole replacements for the electric system
- \$7.7 million for main replacement for the water system
- \$7.3 million for construction of gas mains and service extensions
- \$6.2 million for replacement and relocation of utility assets for the gas and water system to accommodate TDOT highway improvement projects
- \$5.2 million for trucks and equipment

## Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, KUB had \$1.7 billion invested in capital assets, as reflected in the schedule of capital assets, which represents a net increase (including additions, retirements, and depreciation) of \$92 million or 5.6 percent over the end of the last fiscal year.

FY 2016 Consolidated Capital Assets = \$1.7 Billion (in Millions)



Major capital asset additions during the year were as follows:

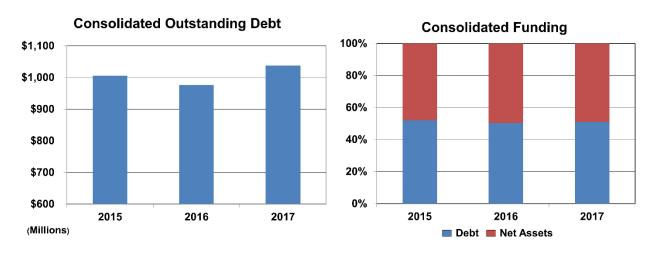
- \$32.6 million related to wastewater Century II projects
  - \$15.8 million for sewer mini-basin rehabilitation and replacement
  - \$7.7 million for sewer trunk line rehabilitation and replacement
  - \$5.3 million for pump station design and construction
  - \$3.8 million for wastewater treatment plant upgrades
- \$25.1 million for various electric distribution system improvements
- \$15.1 million for installation of new gas main and service extensions
- \$13.5 million for main replacement for the water system
- \$8.4 million for upgrades to various information systems
- \$8.4 million for replacement and relocation of utility assets to accommodate TDOT highway improvement projects
- \$7.7 million for pole replacements for the electric system
- \$7.5 million for water plant and system improvements

### **Debt Administration**

KUB's outstanding debt was \$1.04 billion at June 30, 2017. Debt as a percentage of capital structure was 51 percent in 2017, 50.4 percent in 2016, and 52 percent at the end of fiscal year 2015.

# Outstanding Debt As of June 30

(in thousands of dollars)	2017	2016	2015		
Revenue bonds	\$ 1,037,500	\$ 976,430	\$	1,006,260	
Total outstanding debt	\$ 1,037,500	\$ 976,430	\$	1,006,260	



KUB will pay \$393.8 million in principal payments over the next ten years, representing 38 percent of outstanding bonds.

# Fiscal Year 2017 Compared to Fiscal Year 2016

As of June 30, 2017, KUB had \$1.04 billion in outstanding debt (including the current portion of revenue bonds) compared to \$976.4 million last year, an increase of \$61.1 million. KUB's weighted average cost of debt as of June 30, 2017 was 3.85 percent (3.62 percent including the impact of Build America Bonds rebates).

KUB sold \$40 million in electric system revenue bonds in July 2016 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 2.75 percent.

KUB sold \$23.4 million in electric system revenue refunding bonds in March 2017 for the purpose of refinancing existing electric system bonds at lower interest rates. KUB will realize a total debt service savings of \$3.2 million over the life of the bonds (\$2.8 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.18 percent.

KUB sold \$12 million in gas system revenue bonds in July 2016 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 2.78 percent.

KUB sold \$8.1 million in gas system revenue refunding bonds in March 2017 for the purpose of refinancing existing gas system bonds at lower interest rates. KUB will realize a total debt service savings of \$1.2 million over the life of the bonds (\$1 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.09 percent.

KUB sold \$25 million in water system revenue bonds in July 2016 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 2.72 percent.

KUB sold \$20.9 million in water system revenue refunding bonds in July 2016 for the purpose of refinancing existing debt at lower interest rates. KUB will realize a total debt service savings of \$2.5 million over the life of the bonds (\$2.2 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.07 percent.

KUB sold \$5.3 million in water system revenue refunding bonds in March 2017 for the purpose of refinancing existing debt at lower interest rates. KUB will realize a total debt service savings of \$0.7 million over the life of the bonds (\$0.6 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.14 percent.

KUB sold \$20 million in wastewater system revenue bonds in July 2016 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 2.72 percent.

KUB sold \$12 million in wastewater system revenue refunding bonds in March 2017 for the purpose of refinancing existing wastewater system bonds at lower interest rates. KUB will realize a total debt service savings of \$1.4 million over the life of the bonds (\$1.3 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 1.95 percent.

KUB's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2017, 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 Electric, Gas and Wastewater Divisions Aa2.

As part of the rating process for the \$25 million in water revenue bonds and \$20.9 million in water revenue refunding bonds, Moody's upgraded its rating on KUB's water system bonds to Aa1 from Aa2. Aa1 is the second to highest bond credit rating assigned by Moody's Investors Service. In its formal rating report, Moody's stated "the upgrade to Aa1 reflects the well-managed financial operations of the water system that continues to provide for solid debt service coverage and liquidity, a mature service area, and a manageable debt profile." The AAA bond rating from Standard and Poor's was reaffirmed. In its formal rating report on the water bonds, Standard and Poor's noted "based on our financial management assessment we view KUB to be '1' on a scale of 1-6, with '1' being the strongest."

# Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, KUB had \$976.4 million in outstanding debt (including the current portion of revenue bonds) compared to \$1 billion last year, a decrease of \$29.8 million. KUB's weighted average cost of debt as of June 30, 2016 was 3.95 percent.

KUB's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2016, 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 all four Divisions Aa2.

# **Impacts on Future Financial Position**

KUB anticipates a net increase of 3,100 customers during fiscal year 2018.

In June 2017, the KUB Board adopted the next three years of rate increases for all four Divisions to help fund the ongoing Century II infrastructure programs for each system. The first of those rate increases go into effect during fiscal year 2018.

The first approved electric rate increase will be effective October 2017. The rate increase will provide \$10.9 million in additional annual Electric Division revenue.

The first approved natural gas rate increase will be effective October 2017. The rate increase will result in \$2.2 million in additional annual Gas Division revenue.

The first approved water rate increase will be effective July 2017. The rate increase will result in additional annual Water Division revenue of \$3.1 million.

The first approved wastewater rate increase will be effective July 2017. The rate increase will provide additional annual Wastewater Division revenue of \$4.3 million.

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 natural gas system revenue bonds in August 2017 for the purpose of funding natural 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.

All ratings by Standard & Poor's and Moody's Investors Service were reaffirmed as part of the issuance process for the aforementioned bonds.

KUB long-term debt includes \$127.2 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 6.9 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

GASB No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 83, Certain Asset Retirement Obligations, is effective for fiscal years beginning after June 15, 2018. GASB Statement No. 84, Fiduciary Activities, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 85, Omnibus 2017, and GASB Statement No. 86, Certain Debt Extinguishment Issues, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 87, Leases, is effective for fiscal years beginning after December 15, 2019. 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 2017.

# **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, 2017 and 2016. 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, 2017 and 2016**

		2017		2016
Assets and Deferred Outflows of Resources				
Current assets:				
Cash and cash equivalents	\$	78,955,536	\$	78,946,397
Short-term investments		14,967,295		-
Short-term contingency fund investments		43,754,509		25,699,396
Other current assets		3,395,190		859,383
Accrued interest receivable		78,019		43,237
Accounts receivable, less allowance of uncollectible accounts				
of \$652,627 in 2017 and \$805,684 in 2016		74,433,839		72,945,320
Inventories		18,475,991		10,524,829
Prepaid expenses		868,425		886,725
Gas storage	_	7,884,634	_	8,010,091
Total current assets	_	242,813,438	_	197,915,378
Restricted assets:				
Bond funds		20 964 065		20 025 445
Other funds		30,864,965 31,434		28,935,445
		•		21,418
TVA contract proceeds	-	74,619	-	
Total restricted assets	-	30,971,018	-	28,956,863
Plant in service		2,522,407,685		2,397,423,083
Less accumulated depreciation		(838,877,792)		(797,524,421)
	_	1,683,529,893	_	1,599,898,662
Retirement in progress		2,070,321		1,327,498
Construction in progress		139,692,725		141,878,991
Net plant in service		1,825,292,939		1,743,105,151
Other consta				
Other assets:		E 4 700 404		CO 404 00E
Long-term contingency fund investments		54,728,134		69,184,035
TVA conservation program receivable		6,022,815		8,153,192
Under recovered purchased power cost				1,379,643
Under recovered purchased gas cost		3,744,086		2,178,653
Other	-	11,916,691	-	10,882,837
Total other assets	-	76,411,726	-	91,778,360
Total assets	-	2,175,489,121	-	2,061,755,752
Deferred outflows of resources:				
Pension outflow		9,090,810		10,357,291
Unamortized bond refunding costs		24,403,793		23,877,411
Total deferred outflows of resources	-	33,494,603	-	34,234,702
Total assets and deferred outflows of resources	\$	2,208,983,724	\$	2,095,990,454
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The accompanying notes are an integral part of these consolidated financial statements.

# **Knoxville Utilities Board**Consolidated Statements of Net Position June 30, 2017 and 2016

		2017		2016
Liabilities, Deferred Inflows, and Net Position				20.0
Current liabilities:				
Current portion of revenue bonds	\$	34,055,000	\$	31,050,000
Sales tax collections payable		1,309,383	·	1,238,516
Accounts payable		57,143,487		50,663,005
Accrued expenses		20,709,745		21,610,050
Customer deposits plus accrued interest		18,447,639		17,135,891
Accrued interest on revenue bonds		12,994,768		12,755,853
Total current liabilities	-	144,660,022	_	134,453,315
Other liabilities:				
TVA conservation program		6,236,061		8,412,853
Accrued compensated absences		9,074,278		9,061,226
Customer advances for construction		3,295,196		2,247,599
Net pension liability		61,136		5,040,160
Over recovered purchased power cost		3,957,673		-
Other		124,777		303,673
Total other liabilities	_	22,749,121	_	25,065,511
Long-term debt:				
Revenue bonds		1,003,445,000		945,380,000
Unamortized premiums/discounts	_	34,177,284	_	26,985,541
Total long-term debt	_	1,037,622,284	_	972,365,541
Total liabilities	-	1,205,031,427	_	1,131,884,367
Deferred inflows of resources:				
Pension inflow	_	5,267,517	_	1,512,267
Total deferred inflows of resources	_	5,267,517	_	1,512,267
Total liabilities and deferred inflows of resources	_	1,210,298,944	_	1,133,396,634
Net position				
Net investment in capital assets		786,361,325		772,012,085
Restricted for:				
Debt service		17,870,197		16,179,592
Other		106,053		21,418
Unrestricted	_	194,347,205	_	174,380,725
Total net position	_	998,684,780	_	962,593,820
Total liabilities, deferred inflows, and net position	\$ _	2,208,983,724	\$ _	2,095,990,454

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, 2017 and 2016

		2017		2016
Operating revenues				
Electric	\$	539,569,078	\$	515,031,267
Gas		91,610,079		88,193,346
Water		50,234,004		46,899,326
Wastewater	_	88,082,619		83,238,147
Total operating revenues	_	769,495,780		733,362,086
Operating expenses				
Purchased power		417,004,982		398,205,855
Purchased gas		43,589,444		41,095,212
Treatment		16,211,491		16,617,907
Distribution and collection		65,309,186		59,535,776
Customer service		14,150,687		13,893,287
Administrative and general		34,897,376		33,239,284
Provision for depreciation		72,022,197		68,369,697
Taxes and tax equivalents	_	33,482,117		31,439,759
Total operating expenses	_	696,667,480	,	662,396,777
Operating income	_	72,828,300		70,965,309
Non-operating revenues (expenses)				
Contributions in aid of construction		4,328,656		10,258,938
Interest and dividend income		2,139,753		1,388,168
Interest expense		(40,468,883)		(39,142,974)
Amortization of debt costs		(204,369)		(297,772)
Write-down of plant for costs recovered through contributions		(4,328,656)		(10,258,938)
Other	_	(211,826)		(110,775)
Total non-operating revenues (expenses)	_	(38,745,325)		(38,163,353)
Change in net position before capital contributions		34,082,975		32,801,956
Capital contributions	_	2,007,985		1,170,274
Change in net position		36,090,960		33,972,230
Net position, beginning of year	_	962,593,820		928,621,590
Net position, end of year	\$_	998,684,780	\$	962,593,820

# **Knoxville Utilities Board Consolidated Statements of Cash Flows June 30, 2017 and 2016**

		2017		2016
Cash flows from operating activities:  Cash receipts from customers	\$	765 002 462	\$	725 166 400
Cash receipts from other operations	Φ	765,083,462 12,678,406	Φ	735,166,499 14,425,337
Cash payments to suppliers of goods or services		(544,820,189)		(524,357,750)
Cash payments to suppliers of goods of services  Cash payments to employees for services		(58,297,150)		(55,202,648)
Payment in lieu of taxes		(29,127,961)		(27,404,220)
Cash receipts from collections of TVA conservation loan program participants		2,525,020		3,067,056
Cash payments for TVA Conservation loan program		(2,571,436)		(3,034,941)
Net cash provided by operating activities		145,470,152	_	142,659,333
Cash flows from capital and related financing activities:				
Net proceeds from bond issuance		172,176,578		-
Principal paid on revenue bonds and notes payable		(105,590,000)		(29,830,000)
(Increase) decrease in unused bond proceeds		-		46,053,950
Interest paid on revenue bonds and notes payable		(40,229,968)		(37,693,370)
Acquisition and construction of plant		(158,857,535)		(171,820,155)
Changes in bond funds, restricted		(1,929,520)		(2,781,338)
Customer advances for construction		1,071,598		301,071
Proceeds received on disposal of plant		242,537		269,540
Cash received from developers and individuals for capital purposes		4,328,656	_	10,258,938
Net cash used in capital and related financing activities	•	(128,787,654)	_	(185,241,364)
Cash flows from investing activities:		4		
Purchase of investment securities		(44,751,575)		(10,460,222)
Maturities of investment securities		25,633,000		6,292,200
Interest received		2,024,860		1,388,160
Other property and investments		420,356	_	(584,244)
Net cash used in investing activities		(16,673,359)	_	(3,364,106)
Net increase (decrease) in cash and cash equivalents		9,139		(45,946,137)
Cash and cash equivalents, beginning of year		78,946,397	_	124,892,534
Cash and cash equivalents, end of year	\$	78,955,536	\$ _	78,946,397
Reconciliation of operating income to net cash provided by operating activities				
Operating income	\$	72,828,300	\$	70,965,309
Adjustments to reconcile operating income to net cash provided by operating activities:				
Depreciation expense		74,082,536		70,236,319
Changes in operating assets and liabilities:				
Accounts receivable		(1,488,519)		4,980,351
Inventories		(7,951,162)		(2,103,762)
Prepaid expenses		143,757		1,360,432
TVA conservation program receivable		2,130,377		1,874,818
Other assets		(2,709,883)		576,770
Sales tax collections payable		70,867		(12,629)
Accounts payable and accrued expenses		5,635,936		1,332,656
TVA conservation program payable		(2,176,792)		(1,923,829)
Unrecovered purchased power cost		5,337,316		(1,880,165)
Underrecovered gas costs		(1,565,433)		(3,242,414)
Customer deposits plus accrued interest		1,311,748		670,600
Other liabilities	φ.	(178,896)	_ –	(175,123)
Net cash provided by operating activities	\$	145,470,152	\$ =	142,659,333
Noncash capital activities:				
Acquisition of plant assets through developer contributions	\$	2,007,985	\$	1,170,274

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

# Knoxville Utilities Board Notes to Consolidated Financial Statements June 30, 2017 and 2016

# 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 March 2016, the GASB issued GASB Statement No. 82 (Statement No. 82), *Pension Issues – An amendment of GASB Statements No. 67, No. 68 and No. 73.* The objective of this Statement is to address certain issues that have been raised with respect to the presentation of payroll-related measures in required supplementary information, the selection of assumptions and treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes and the classification of payments made by employers to satisfy employee contribution obligations. Statement No. 82 is effective for fiscal years beginning after June 15, 2016.

#### **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 \$2,060,340 in fiscal year 2017 and \$1,866,622 in fiscal year 2016. 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 \$1,524,318 in fiscal year 2017 and \$1,820,030 in fiscal year 2016.

#### **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.

#### 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, 2017 and 2016 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 and 2016 are based on a December 31, 2016 and 2015 measurement date, respectively. The net pension asset is \$123,941 as of June 30, 2017 and the net pension liability is \$5,040,160 as of June 30, 2016.

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, 2017 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 will be based on the December 31, 2016 measurement date. The total pension liability of the QEBA is \$185,077 as of June 30, 2017.

The total pension liability is \$61,136 as of June 30, 2017 and \$5,040,160 as of June 30, 2016.

#### **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 differences between expected and actual experience in accordance with Statement No. 68.

#### **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 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, no loans were made through this program after October 31, 2015.

#### **Subsequent Events**

KUB has evaluated events and transactions through October 18, 2017, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold \$40 million in electric system revenue bonds in August 2017 for the purpose of funding electric system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent. Debt service payments including principal and interest range from \$399,311 to \$2,070,006 with maturity in fiscal year 2048. KUB sold \$12 million in gas system revenue bonds in August 2017 for the purpose of funding gas system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.07 percent. Debt service payments including principal and interest range from \$385,214 to \$628,356 with maturity in fiscal year 2047. KUB sold \$20 million in water system revenue bonds in August 2017 for the purpose of funding water system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.05 percent. Debt service payments including principal and interest range from \$521,651 to \$1,068,056 with maturity in fiscal year 2047. KUB sold \$25 million in wastewater system revenue bonds in August 2017 for the purpose of funding wastewater system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent. Debt service payments including principal and interest range from \$704,046 to \$1,315,806 with maturity in fiscal year 2047.

KUB's electric system was impacted by a storm event in May 2017 that resulted in a cost of \$1.2 million to the system. KUB has applied for \$0.9 million in reimbursements in fiscal year 2018 from the Federal Emergency Management Agency (FEMA) to offset the cost of the 2017 event.

In May 2017, the KUB Board approved a \$12 million line of credit for fiscal year 2018 for the Gas Division. As of October 18, 2017, there have been no draws on this line of credit.

#### **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 \$3,957,673 at June 30, 2017 and (\$1,379,643) at June 30, 2016.

#### **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 (\$3,744,086) at June 30, 2017 and (\$2,178,653) at June 30, 2016.

#### **Recently Issued Accounting Pronouncements**

In June 2015, the GASB issued GASB Statement No. 75 (Statement No. 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Statement addresses reporting by governments that provide OPEB to their employees. Statement No. 75 is effective for fiscal years beginning after June 15, 2017.

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 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 March 2017, the GASB issued GASB Statement No. 85 (Statement No. 85), *Omnibus 2017*. The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. Statement No. 85 is effective for fiscal years beginning after June 15, 2017.

In May 2017, the GASB issued GASB Statement No. 86 (Statement No. 86), *Certain Debt Extinguishment Issues*. The objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt. The Statement provides guidance for transactions in which cash and other monetary assets acquired with existing resources or resources other than the proceeds of refunding debt, are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Statement No. 86 is effective for fiscal years beginning after June 15, 2017.

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.

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:

	2017		2016
Current assets			
Cash and cash equivalents	\$ 78,955,536	\$	78,946,397
Short-term investments	14,967,295		-
Short-term contingency fund investments	43,754,509		25,699,396
Other assets			
Long-term contingency fund investments	54,378,356		68,914,368
Restricted assets			
Bond fund	30,864,965		28,935,445
Other funds	 31,434	_	21,418
	\$ 222,952,095	\$	202,517,024

The above amounts do not include accrued interest of \$349,778 in fiscal year 2017 and \$269,667 in fiscal year 2016. 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, 2017:

		Deposit and	(in Years)			
		Fair Less				
	_	Value	_	Than 1	_	1-5
Supersweep NOW and Other Deposits	\$	89,821,990	\$	89,821,990	\$	-
State Treasurer's Investment Pool		1,501,570		1,501,570		-
Agency Bonds		118,143,335		56,296,804		61,846,531
Certificates of Deposits	_	15,708,765	_	15,708,765		-
	\$_	225,175,660	\$	163,329,129	\$	61,846,531

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, 2017:

• U.S. Agency bonds of \$61,846,531, 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:

	2017	2016
Wholesale and retail customers		
Billed services	\$ 45,629,784	\$ 42,412,998
Unbilled services	25,250,090	26,904,562
Other	4,206,592	4,433,444
Allowance for uncollectible accounts	 (652,627)	 (805,684)
	\$ 74,433,839	\$ 72,945,320

# 5. Accounts Payable and Accruals

Accounts payable and accruals consist of the following:

	2017		2016
Trade accounts	\$ 57,143,487	\$	50,663,005
Salaries and wages	2,445,767		2,129,489
Advances on pole rental	2,101,729		2,135,320
Self-insurance liabilities	1,891,789		1,758,352
Other current liabilities	 14,270,460		15,586,889
	\$ 77,853,232	\$_	72,273,055

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# 6. Long-Term Obligations

		Balance June 30,								Balance June 30,		Amounts Due Within
Electric		2016		Additions		Payments		Defeased		2017		One Year
W-2005 - 3.0 - 4.5%	\$	29,480,000	\$	-	\$	1,940,000	5	25,525,000	\$	2,015,000	\$	2,015,000
Y-2009 - 2.5 - 5.0%	Ψ	5,275,000	Ψ	_	Ψ.	1,675,000	*	-	Ψ	3,600,000	Ψ	1,750,000
Z-2010 - 1.45 - 6.35%		23,920,000		_		1,305,000		_		22,615,000		1,330,000
AA-2012 - 3.0 - 5.0%		33,850,000		_		2,540,000		_		31,310,000		2,670,000
BB-2012 - 3.0 - 4.0%		33,225,000		_		675,000		_		32,550,000		700,000
CC-2013 - 3.0 - 4.0%		9,485,000				450,000		_		9,035,000		475,000
DD-2014 - 2.0 - 4.0%		39,325,000		_		700,000		_		38,625,000		725,000
				-				-				
EE-2015 - 2.0 - 5.0%		28,425,000		-		150,000		-		28,275,000		150,000
FF-2015 - 2.0 - 5.0%		35,000,000		-		675,000		-		34,325,000		700,000
GG-2016 - 2.0-5.0%		-		40,000,000		-		-		40,000,000		775,000
HH-2017 - 2.5-5.0%	φ-		φ.	23,445,000	φ-	- 40 440 000	φ.		φ.	23,445,000	_	55,000
Total bonds	\$_	237,985,000	\$	63,445,000	۵.		\$	25,525,000	\$ _		\$	11,345,000
Unamortized Premium		9,728,282		3,222,526		697,187		172,680		12,080,941		-
Total long term debt	\$_	247,713,282	\$ ,	66,667,526	\$	10,807,187	\$	25,697,680	\$	277,875,941	\$ _	11,345,000
Gas												
L-2005 - 3.0 - 4.75%	\$	10,020,000	\$	-	\$	725,000	\$	9,295,000	\$	-	\$	-
N-2007 - 4.0 - 5.0%		550,000		-		550,000		-		-		-
P-2010 - 3.3 - 6.2%		12,000,000		-		540,000		-		11,460,000		570,000
Q-2012 - 2.0 - 4.0%		22,645,000		-		2,065,000		-		20,580,000		2,125,000
R-2012 - 2.0 - 4.0%		9,400,000		-		400,000		-		9,000,000		425,000
S-2013 - 2.0 - 4.0%		11,430,000		-		570,000		-		10,860,000		595,000
T-2013 - 2.0 - 4.6%		24,400,000		-		500,000		-		23,900,000		500,000
U-2015 - 2.0 - 3.5%		11,680,000		_		100,000		_		11,580,000		615,000
V-2016 - 2.125-5.0%		-		12,000,000		225,000		_		11,775,000		225,000
W-2017 - 5.0%		_		8,065,000		-		_		8,065,000		675,000
Total bonds	\$	102,125,000	\$	20,065,000	\$	5,675,000	8	9,295,000	\$	107,220,000	\$	5,730,000
Unamortized Premium		3,488,853	٠,	1,595,609	Ť	289,649	•	123,105	٠.	4,671,708	-	-
Total long term debt	\$	105,613,853	\$	21.660.609	\$	5,964,649		9,418,105	\$	111,891,708	<u>_</u>	5,730,000
Water	Ψ=	100,010,000	Ψ.	21,000,003	Ψ=	3,304,043	٠,	3,410,103	Ψ.	111,031,700	Ψ_	3,730,000
S-2005 - 3.5 - 5.0%	\$	6 205 000	\$		\$	465,000	\$	5,830,000	\$		\$	
	Ф	6,295,000	Φ	-	Ф	,	Φ	5,630,000	Ф	-	Ф	-
T-2007 - 4.0 - 5.5%		750,000		-		750,000		40.075.000		4 075 000		-
U-2009 - 3.0 - 4.5%		22,625,000		-		875,000		19,875,000		1,875,000		925,000
W-2011 - 2.0 - 4.0%		22,800,000		-		550,000		-		22,250,000		550,000
X-2012 - 3.0 - 5.0%		8,665,000		-		515,000		-		8,150,000		535,000
Y-2013 - 3.0 - 4.0%		8,970,000		-		280,000		-		8,690,000		300,000
Z-2013 - 2.0 - 5.0%		23,675,000		-		500,000		-		23,175,000		500,000
AA-2014 - 2.0 - 4.0%		7,725,000		-		150,000		-		7,575,000		150,000
BB-2015 - 2.0 - 5.0%		22,835,000		-		100,000		-		22,735,000		865,000
CC-2015 - 2.0 - 4.0%		19,650,000		-		375,000		-		19,275,000		400,000
DD-2016 - 3.0-5.0%		-		25,000,000		275,000		-		24,725,000		475,000
EE-2016 - 2.0-5.0%		-		20,875,000		-		-		20,875,000		100,000
FF-2017 - 3.0-5.0%		-		5,310,000	_	-		-	_	5,310,000	_	470,000
Total bonds	\$	143,990,000	\$	51,185,000	\$	4,835,000	\$	25,705,000	\$	164,635,000	\$	5,270,000
Unamortized Premium	_	2,702,182		3,085,193		270,448		159,623		5,357,304		-
Total long term debt	\$	146,692,182	\$	54,270,193	\$	5,105,448	\$	25,864,623	\$	169,992,304	\$	5,270,000
Wastewater	_				-				-			
2005 B - 3.0 - 5.0%	\$	14,635,000	\$	-	\$	1,470,000	\$	13,165,000	\$	-	\$	-
2008 - 4.0 - 6.0%		6,550,000		-		4,600,000		-		1,950,000		1,950,000
2010 - 6.3 - 6.5%		30,000,000		-		-		-		30,000,000		-
2010C - 1.18 - 6.1%		64,500,000		_		1,400,000		_		63,100,000		1,500,000
2012A - 2.0 - 4.0%		14,595,000		_		840,000		_		13,755,000		985,000
2012B - 1.25 - 5.0%		62,350,000		_		975,000		_		61,375,000		1,000,000
2013A - 2.0 - 4.0%		111,715,000		_		620,000		_		111,095,000		635,000
2014A - 2.0 - 4.0%		29,200,000				450,000				28,750,000		475,000
2015A - 3.0 - 5.0%		129,360,000				125,000				129,235,000		2,835,000
		29,425,000		-		450,000		-				
2015B - 3.0 - 5.0%		29,425,000		20,000,000				-		28,975,000		475,000
2016 - 2.0 - 5.0%		-		20,000,000		350,000		-		19,650,000		450,000
2017A - 3.0 - 5.0%	φ-	402 220 000	φ.	11,965,000	φ-	- 44 200 000 4		12 165 000	φ-	11,965,000	φ	1,405,000
Total bonds	\$_	492,330,000	\$	31,965,000	\$	11,280,000	Þ ;	13,165,000	\$	499,850,000	\$	11,710,000
Unamortized Premium		11,066,224	φ.	1,684,616		600,100		83,409	φ.	12,067,331	_	- 44 740 000
Total long term debt	\$_	503,396,224	\$.	33,649,616	\$ <b>.</b>	11,880,100	Ď,	13,248,409	\$.	511,917,331	\$_	11,710,000
Consolidated	_				_						_	
Total bonds	\$	976,430,000	\$	166,660,000	\$	31,900,000	\$	73,690,000	\$	1,037,500,000	\$	34,055,000
Total unamortized premiun		26,985,541		9,587,944		1,857,384		538,817	_	34,177,284	.—	<u> </u>
Total long term debt	\$_	1,003,415,541	\$	176,247,944	\$_	33,757,384	₿,	74,228,817	\$	1,071,677,284	\$	34,055,000

<b>E</b> lectric		Balance June 30, 2015		Additions		Payments	ı	Defeased		Balance June 30, 2016		Amounts Due Within One Year
W-2005 - 3.0 - 4.5%	\$	31,350,000	\$	_	\$	1,870,000	\$	_	\$	29,480,000	\$	1,940,000
X-2006 - 4.0 - 5.0%	Ψ	1,825,000	۳	-	Ψ	1,825,000	۳	-	Ψ	-	Ψ	-
Y-2009 - 2.5 - 5.0%		6,875,000		-		1,600,000		-		5,275,000		1,675,000
Z-2010 - 1.45 - 6.35%		25,205,000		-		1,285,000		-		23,920,000		1,305,000
AA-2012 - 3.0 - 5.0%		34,840,000		-		990,000		-		33,850,000		2,540,000
BB-2012 - 3.0 - 4.0%		33,875,000		-		650,000		-		33,225,000		675,000
CC-2013 - 3.0 - 4.0%		9,535,000		-		50,000		-		9,485,000		450,000
DD-2014 - 2.0 - 4.0%		40,000,000		-		675,000		-		39,325,000		700,000
EE-2015 - 2.0 - 5.0%		28,550,000		-		125,000		-		28,425,000		150,000
FF-2015 - 2.0 - 5.0%	_	35,000,000			_	-			_	35,000,000	_	675,000
Total bonds	\$	247,055,000	\$	-	\$	9,070,000	\$	-	\$	237,985,000	\$	10,110,000
Unamortized premium		10,345,326				617,044		-		9,728,282	_	-
Total long term debt	\$_	257,400,326	\$		\$_	9,687,044	;		\$_	247,713,282	\$	10,110,000
Gas	_		_		_				_		_	
L-2005 - 3.0 - 4.75%	\$	10,715,000	\$	-	\$	695,000	\$	-	\$	10,020,000	\$	725,000
N-2007 - 4.0 - 5.0%		550,000		-		-		-		550,000		550,000
O-2010 - 2.0 - 3.0%		3,475,000		-		3,475,000		-		-		-
P-2010 - 3.3 - 6.2%		12,000,000		-		700.000		-		12,000,000		540,000
Q-2012 - 2.0 - 4.0%		23,345,000 9,600,000		-		700,000		-		22,645,000		2,065,000
R-2012 - 2.0 - 4.0% S-2013 - 2.0 - 4.0%				-		200,000		-		9,400,000		400,000
T-2013 - 2.0 - 4.6%		11,480,000 24,600,000		-		50,000 200,000		-		11,430,000 24,400,000		570,000 500,000
U-2015 - 2.0 - 4.6% U-2015 - 2.0 - 3.5%		11,780,000		-		100,000		-		11,680,000		100,000
Total bonds	\$	107.545.000	\$		\$	5,420,000	2	<del></del>	\$	102,125,000	\$	5,450,000
Unamortized premium	Ψ	3,794,404	Ψ	_	Ψ	305,551	Ψ	-	Ψ	3,488,853	Ψ	3,430,000
Total long term debt	\$	111,339,404	\$		\$	5,725,551	\$	-	\$	105,613,853	\$	5,450,000
Water	=		•		-				-		_	
S-2005 - 3.5 - 5.0%	\$	6,735,000	\$	-	\$	440,000	\$	-	\$	6,295,000	\$	465,000
T-2007 - 4.0 - 5.5%		1,450,000		-		700,000		-		750,000		750,000
U-2009 - 3.0 - 4.5%		23,450,000		-		825,000		-		22,625,000		875,000
W-2011 - 2.0 - 4.0%		23,350,000		-		550,000		-		22,800,000		550,000
X-2012 - 3.0 - 5.0%		9,150,000		-		485,000		-		8,665,000		515,000
Y-2013 - 3.0 - 4.0%		9,235,000		-		265,000		-		8,970,000		280,000
Z-2013 - 2.0 - 5.0%		24,150,000		-		475,000		-		23,675,000		500,000
AA-2014 - 2.0 - 4.0%		7,875,000		-		150,000		-		7,725,000		150,000
BB-2015 - 2.0 - 5.0%		23,005,000		-		170,000		-		22,835,000		100,000
CC-2015 - 2.0 - 4.0%		20,000,000				350,000				19,650,000	_	375,000
Total bonds	\$	148,400,000	\$	-	\$	4,410,000	\$	-	\$	143,990,000	\$	4,560,000
Unamortized premium Total long term debt	\$	2,866,890 151,266,890	· \$	<del>-</del>	\$	164,708 4,574,708	\$	<del>-</del>	\$	2,702,182 146,692,182	<sub>\$</sub> -	4,560,000
	Ψ=	131,200,090	. Ψ		Ψ=	4,374,700	=Ψ=		Ψ=	140,092,102	Ψ=	4,300,000
Wastewater	•	10015000	•		•	4 440 000	•		•	44.005.000	•	4 470 000
2005 B - 3.0 - 5.0%	\$	16,045,000	\$	-	\$	1,410,000	\$	-	\$	14,635,000	\$	1,470,000
2008 - 4.0 - 6.0%		11,000,000		-		4,450,000		-		6,550,000		4,600,000
2010 - 6.3 - 6.5%		30,000,000		-		1 250 000		-		30,000,000		1 400 000
2010C - 1.18 - 6.1%		65,750,000		-		1,250,000		-		64,500,000		1,400,000
2012A - 2.0 - 4.0% 2012B - 1.25 - 5.0%		15,415,000		-		820,000 925,000		-		14,595,000		840,000
2012B - 1.25 - 5.0% 2013A - 2.0 - 4.0%		63,275,000 112,325,000		-		610,000		-		62,350,000 111,715,000		975,000 620,000
2014A - 2.0 - 4.0%		29,625,000		-		425,000		-		29,200,000		450,000
2015A - 3.0 - 5.0%		129,825,000		_		465,000				129,360,000		125,000
2015B - 3.0 - 5.0%		30,000,000		-		575,000		-		29,425,000		450,000
Total bonds	\$	503,260,000	\$		\$	10,930,000			\$	492,330,000	<b>\$</b>	10,930,000
Unamortized premium	Ψ	11,625,190	φ	- -	Ψ	558,966	Ψ	-	Ψ	11,066,224	Ψ	-
Total long term debt	\$	514,885,190	\$		\$	11,488,966	\$	_	\$	503,396,224	<b>\$</b>	10,930,000
Consolidated	-	,, - <del>-</del>			-	, -,	= `-		-	, , -	-	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Total Bonds	\$	1,006,260,000	\$	-	\$	29,830,000	\$	_	\$	976,430,000	\$	31,050,000
Total unamortized premiu		28,631,810	Ψ	-	*	1,646,269	*	-	+	26,985,541	7	-
Total long term debt	_	1,034,891,810	\$	_	\$	31,476,269	\$		\$	1,003,415,541	\$	31,050,000
-		•	•		-				•	•	_	

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

Fiscal Year	Principal		Interest	Total
2018	\$ 34,055,000	\$	39,422,834	\$ 73,477,834
2019	35,040,000		38,389,369	73,429,369
2020	36,505,000		36,926,784	73,431,784
2021	37,995,000		35,381,435	73,376,435
2022	39,695,000		33,690,656	73,385,656
2023-2027	210,555,000		143,394,707	353,949,707
2028-2032	199,505,000		105,909,140	305,414,140
2033-2037	163,750,000		73,703,315	237,453,315
2038-2042	170,100,000		42,256,045	212,356,045
2043-2047	102,475,000		11,490,950	113,965,950
2048-2050	 7,825,000	_	552,150	8,377,150
Total	\$ 1,037,500,000	\$	561,117,385	\$ 1,598,617,385

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, 2017 these requirements had been satisfied.

During fiscal year 2006, KUB's Electric Division issued Series W 2005 bonds in part to retire certain existing debt and fund electric system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series U 2001 bonds, as such amounts mature. During fiscal year 2009, KUB's Electric Division issued Series Y 2009 bonds to fund electric system capital improvements. 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. Effective October 1, 2016 these bonds became subject to a 6.9 percent 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. During fiscal year 2012, KUB's Electric Division issued Series AA 2012 bonds to retire a portion of outstanding Series V 2004 bonds. During fiscal year 2013, KUB's Electric Division issued Series BB 2012 bonds to fund electric system capital improvements. KUB's Electric Division also issued Series CC 2013 bonds to retire a portion of outstanding Series X 2006 bonds. During fiscal year 2015, KUB's Electric Division issued Series EE 2015 bonds to retire a portion of outstanding Series Y 2009 bonds. KUB's Electric Division also issued Series DD 2014 and Series FF 2015 to fund electric system capital improvements. During fiscal year 2017, KUB's Electric Division issued Series GG 2016 bonds to fund electric system capital improvements. KUB's Electric Division also issued Series HH 2017 bonds to retire a portion of outstanding Series W 2005 bonds as follows. On April 7, 2017, \$23.5 million in revenue refunding bonds with an average interest rate of 4.1 percent were issued to advance refund \$25.5 million of outstanding bonds with an average interest rate of 4.6 percent. The net proceeds of \$26.1 million (after payment of \$0.2 million in issuance costs plus premium of \$2.5 million and an additional issuer equity contribution of \$0.3 million) were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the bonds. As a result, the bonds are considered to be defeased and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 11 years by \$3.2 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$2.8 million. In the current and prior years, certain revenue bonds were defeased by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds.

Accordingly, the liability for the defeased bonds, \$53 million at June 30, 2017, and the trust account assets are not included in the financial statements.

During fiscal year 2006, KUB's Gas Division issued Series L 2005 bonds in part to retire certain existing debt and fund gas system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series J 2001 bonds, as such amounts mature. During fiscal year 2008, KUB's Gas Division issued Series N 2007 to fund gas 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. Effective October 1, 2016, these bonds became subject to a 6.9 percent 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. During fiscal year 2012, KUB's Gas Division issued Series Q 2012 bonds to retire Series K 2004 bonds. During fiscal year 2013, KUB's Gas Division issued Series R 2012 bonds to fund gas system capital improvements. KUB's Gas Division also issued Series S 2013 bonds to retire Series M 2006 outstanding bonds. During fiscal year 2014. KUB's Gas Division issued Series T 2013 to fund gas system capital improvements. During fiscal year 2015, KUB's Gas Division issued Series U 2015 bonds to retire Series N 2007 outstanding bonds. During fiscal year 2017, KUB's Gas Division issued Series V 2016 bonds to fund gas system capital improvements. KUB's Gas Division also issued Series W 2017 bonds to retire outstanding Series L 2005 bonds as follows. On April 7, 2017, \$8.1 million in revenue refunding bonds with an average interest rate of 5 percent were issued to currently refund \$9.3 million of outstanding bonds with an average interest rate of 4.4 percent. The net proceeds of \$9.4 million (after payment of \$0.1 million in issuance costs plus premium of \$1.3 million and an additional issuer equity contribution of \$0.1 million) were used to refund the bonds. As a result, the bonds are considered to be refunded and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 10 years by \$1.2 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$1 million.

During fiscal year 2006, KUB's Water Division issued Series S 2005 bonds to retire certain existing debt and fund water system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series P 2001 bonds, as such amounts mature. During fiscal year 2008, KUB's Water Division issued Series T 2007 bonds to fund water system capital improvements. During fiscal year 2010, KUB's Water Division issued Series U 2009 bonds to fund water system capital improvements. During fiscal year 2012, KUB's Water Division issued Series W 2011 bonds to fund water system capital improvements. KUB's Water Division also issued Series X 2012 bonds to retire Series Q 2004 bonds. During fiscal year 2013, KUB's Water Division issued Series Y 2013 bonds to retire a portion of outstanding Series R 2005 bonds. During fiscal year 2014, KUB's Water Division issued Series Z 2013 bonds to fund water system capital improvements. During fiscal year 2015, KUB's Water Division issued Series BB 2015 bonds to retire a portion of outstanding Series T 2007 bonds. KUB's Water Division also issued Series AA 2014 and Series CC 2015 bonds to fund water system capital improvements. During fiscal vear 2017. KUB's Water Division issued Series DD 2016 bonds to fund water system capital improvements. KUB's Water Division also issued Series EE 2016 bonds to retire a portion of outstanding Series U 2009 bonds as follows. On August 5, 2016, \$20.9 million in revenue refunding bonds with an average interest rate of 2.5 percent were issued to advance refund \$19.9 million of outstanding bonds with an average interest rate of 4.18 percent. The net proceeds of \$22 million (after payment of \$0.3 million in issuance costs plus premium of \$1 million and an additional issuer equity contribution of \$0.4 million) were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the bonds. As a result, the bonds are considered to be defeased and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 16 years by \$2.5 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$2.2 million.

KUB's Water Division also issued Series FF 2017 bonds to retire outstanding Series S 2005 bonds as follows. On April 7, 2017, \$5.3 million in revenue refunding bonds with an average interest rate of 4.1 percent were issued to currently refund \$5.8 million of outstanding bonds with an average interest rate of 4.3 percent. The net proceeds of \$5.9 million (after payment of \$0.1 million in issuance costs plus premium of \$0.6 million and an additional issuer equity contribution of \$0.1 million) were used to refund the bonds. As a result, the bonds are considered to be refunded and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 10 years by \$0.7 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$0.6 million. In the current and prior years, certain revenue bonds were defeased by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the liability for the defeased bonds, \$19.9 million at June 30, 2017, and the trust account assets are not included in the financial statements.

During fiscal year 2006, KUB's Wastewater Division issued Series 2005B bonds in part to retire certain existing debt and fund wastewater system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series 1998 bonds and Series 2001A bonds, as such amounts mature. During fiscal year 2009, KUB's Wastewater Division issued Series 2008 bonds to fund wastewater 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. Effective October 1, 2016, these bonds became subject to a 6.9 percent 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. 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. Effective October 1, 2016, these bonds became subject to a 6.9 percent 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. During fiscal year 2012, KUB's Wastewater Division issued Series 2012A bonds to retire Series 2004A bonds. During fiscal year 2013, KUB's Wastewater Division issued Series 2012B bonds to fund wastewater system capital improvements. KUB's Wastewater Division also issued Series 2013A bonds to retire a portion of outstanding Series 2005A bonds. During fiscal year 2015, KUB's Wastewater Division issued Series 2015A bonds to retire a portion of outstanding Series 2005A, Series 2007, and Series 2008 bonds. KUB's Wastewater Division also issued Series 2014A and Series 2015B bonds to fund wastewater system capital improvements. During fiscal year 2017, KUB's Wastewater Division issued Series 2016 bonds to fund wastewater system capital improvements. KUB's Wastewater Division also issued Series 2017A bonds to retire outstanding Series 2005B bonds as follows. On April 7, 2017, \$12 million in revenue refunding bonds with an average interest rate of 4.4 percent were issued to currently refund \$13.2 million of outstanding bonds with an average interest rate of 4.3 percent. The net proceeds of \$13.2 million (after payment of \$0.1 million in issuance costs plus premium of \$1.3 million) were used to refund the bonds. As a result, the bonds are considered to be refunded and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 10 years by \$1.4 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$1.3 million. In the current and prior years, certain revenue bonds were defeased by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the liability for the defeased bonds, \$15.7 million at June 30, 2017, and the trust account assets are not included in the financial statements.

Other liabilities consist of the following:

		Balance June 30, 2016		Increase		Decrease		Balance June 30, 2017
TVA conservation program Accrued compensated	\$	8,412,853	\$	469,575	\$	(2,646,367)	\$	6,236,061
absences Customer advances		9,061,226		15,234,380		(15,221,328)		9,074,278
for construction		2,247,599		2,267,651		(1,220,054)		3,295,196
Other	_	303,673	_	193,396	_	(372,292)	_	124,777
	\$_	20,025,351	\$_	18,165,002	\$_	(19,460,041)	\$_	18,730,312
		Balance June 30, 2015		Increase		Decrease		Balance June 30, 2016
TVA conservation program Accrued compensated	\$	June 30,	\$	Increase 1,174,926	\$	<b>Decrease</b> (3,098,755)	\$	June 30,
	\$	June 30, 2015	\$		\$		\$	June 30, 2016
Accrued compensated absences	\$	June 30, 2015 10,336,682	\$	1,174,926	\$	(3,098,755)	\$	June 30, 2016 8,412,853
Accrued compensated absences Customer advances	\$	June 30, 2015 10,336,682 8,616,844	\$	1,174,926 16,943,202	\$	(3,098,755) (16,498,820)	\$	June 30, 2016 8,412,853 9,061,226

#### 7. Lease Commitments

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

2018	\$	349,871
2019		326,280
2020	_	229,300
Total operating minimum lease payments	\$	905,451

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# 8. Capital Assets

Capital asset activity was as follows:

		June 30, 2016		Increase		Decrease		June 30, 2017
Production Plant (Intakes)	\$	742,503	\$	-	\$	-	\$	742,503
Pumping and Treatment Plant		297,973,884		10,152,622		(2,923,971)		305,202,535
Distribution and Collection Plant								
Mains and metering		934,793,860		68,837,071		(9,373,360)		994,257,571
Services and meters		160,978,776		24,804,848		(7,846,872)		177,936,752
Electric station equipment		152,233,167		3,292,850		(862,286)		154,663,731
Poles, towers and fixtures		148,060,617		13,309,400		(1,004,435)		160,365,582
Overhead conductors		136,774,702		9,610,604		(2,447,909)		143,937,397
Line transformers		96,843,152		3,281,186		(831,121)		99,293,217
Other accounts		300,410,274		8,641,296		(1,649,261)		307,402,309
Total Distribution & Collection Plant	\$ -	1,930,094,548	\$	131,777,255	\$	(24,015,244)	\$ -	2,037,856,559
General Plant	_	168,612,148		14,760,666	_	(4,766,726)	_	178,606,088
Total Plant Assets	\$	2,397,423,083	\$	156,690,543	\$	(31,705,941)	\$	2,522,407,685
Less Accumulated Depreciation		(797,524,421)		(74,213,237)		32,859,866		(838,877,792)
Net Plant Assets	ς -	1,599,898,662	\$	82,477,306	\$	1,153,925	\$	1,683,529,893
Not I fall About	Ψ	1,000,000,002	Ψ	02,477,000	Ψ	1,100,020	Ψ	1,000,020,000
Work In Progress		143,206,489		154,828,582		(156,272,025)		141,763,046
Total Net Plant	\$	1,743,105,151	\$	237,305,888	\$	(155,118,100)	\$	1,825,292,939
	_						-	_
		Balance						Balance
		June 30, 2015		Increase		Decrease		June 30, 2016
Production Plant (Intakes)	\$	<b>June 30, 2015</b> 742,503	\$	-	\$	-	\$	June 30, 2016 742,503
Production Plant (Intakes) Pumping and Treatment Plant	\$	June 30, 2015	\$	Increase - 27,948,957		Decrease (2,131,084)		June 30, 2016
, ,	\$	<b>June 30, 2015</b> 742,503	\$	-		-		June 30, 2016 742,503
Pumping and Treatment Plant	\$	<b>June 30, 2015</b> 742,503	\$	-	•	-	)	June 30, 2016 742,503
Pumping and Treatment Plant  Distribution and Collection Plant	\$	June 30, 2015 742,503 272,156,011	\$	- 27,948,957	•	(2,131,084) (11,856,977	)	June 30, 2016 742,503 297,973,884
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering	\$	June 30, 2015 742,503 272,156,011 856,463,692	\$	- 27,948,957 90,187,145	•	(2,131,084)	)	June 30, 2016 742,503 297,973,884 934,793,860
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering  Services and meters	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743	\$	27,948,957 90,187,145 10,562,942	•	(2,131,084) (11,856,977 (4,890,909	) ) )	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering  Services and meters  Electric station equipment	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097	\$	27,948,957 90,187,145 10,562,942 27,775,476	•	(2,131,084) (11,856,977 (4,890,909 (880,406	) ) ) )	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering  Services and meters  Electric station equipment  Poles, towers and fixtures	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063	\$	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225	•	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671	) ) ) )	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering  Services and meters  Electric station equipment  Poles, towers and fixtures  Overhead conductors	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727	\$	90,187,145 10,562,942 27,775,476 14,897,225 9,622,260	•	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285	)	934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering  Services and meters  Electric station equipment  Poles, towers and fixtures  Overhead conductors  Line transformers	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983	\$	90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889	_	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720	) ) ) ) )	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152
Pumping and Treatment Plant  Distribution and Collection Plant Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant		June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166	\$	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402	_ \$	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020	) ) ) ) ) ) ) \$	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant  General Plant	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166	<b>\$</b>	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402	_ \$	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020	) ) ) ) ) ) ) )	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548
Pumping and Treatment Plant  Distribution and Collection Plant Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant		June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166	<b>\$</b>	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402	_ \$	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020	) ) ) ) ) ) ) )	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant  General Plant	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166	- - - \$	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402	_ \$	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020	) ) ) ) ) ) \$	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant  General Plant Total Plant Assets	\$	June 30, 2015 742,503 272,156,011 856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166 154,807,001 2,210,535,681	- - - \$	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402 16,109,904 213,624,263	_ _ _ \$ _ )_	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020 (2,304,757 (26,736,861	) ) ) ) ) ) ) \$	June 30, 2016 742,503 297,973,884 934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548 168,612,148 2,397,423,083
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant  General Plant Total Plant Assets  Less Accumulated Depreciation Net Plant Assets	\$	June 30, 2015 742,503 272,156,011  856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166  154,807,001 2,210,535,681  (753,200,620 1,457,335,061	- - - * ) *	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402 16,109,904 213,624,263 (70,652,307 142,971,956	- - s	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020 (2,304,757 (26,736,861 26,328,506 (408,355	)))))) )))) ))) \$))\$	June 30, 2016 742,503 297,973,884  934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548  168,612,148 2,397,423,083  (797,524,421) 1,599,898,662
Pumping and Treatment Plant  Distribution and Collection Plant  Mains and metering Services and meters Electric station equipment Poles, towers and fixtures Overhead conductors Line transformers Other accounts Total Distribution & Collection Plant  General Plant Total Plant Assets  Less Accumulated Depreciation	\$	June 30, 2015 742,503 272,156,011  856,463,692 155,306,743 125,338,097 134,306,063 128,493,727 92,547,983 290,373,861 1,782,830,166 154,807,001 2,210,535,681	- - - - - - - - - - - - -	27,948,957 90,187,145 10,562,942 27,775,476 14,897,225 9,622,260 5,192,889 11,327,465 169,565,402 16,109,904 213,624,263 (70,652,307	- - - *	(2,131,084) (11,856,977 (4,890,909 (880,406 (1,142,671 (1,341,285 (897,720 (1,291,052 (22,301,020 (2,304,757 (26,736,861 26,328,506	))))))))) ))))) )))) ))))	June 30, 2016 742,503 297,973,884  934,793,860 160,978,776 152,233,167 148,060,617 136,774,702 96,843,152 300,410,274 1,930,094,548  168,612,148 2,397,423,083 (797,524,421)

Beginning

**Ending** 

#### 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, 2017 and June 30, 2016, the amount of these liabilities was \$1,891,790 and \$1,758,352, respectively, resulting from the following changes:

		2017	2016
Balance, beginning of year	\$	1,758,352	\$ 1,699,525
Current year claims and changes in estimates		16,041,816	14,043,332
Claims payments	_	(15,908,378)	(13,984,505)
Balance, end of year	\$	1,891,790	\$ 1,758,352

#### 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 ("KUB") 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 to accrue benefits under the Plan.

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

	2016	2015
Inactive plan members:		
Terminated vested participants	43	39
Retirees and beneficiaries	605	628
Active plan members	<u>662</u>	<u>692</u>
Total	<u>1,310</u>	<u>1,359</u>

#### **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 address the loss 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, 2016:

Asset Class	<b>Target Allocation</b>
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 \$4,816,913 and \$5,669,380 for 2015 and 2014, respectively, were made during the Plan sponsor's fiscal years ending June 30, 2017 and 2016, respectively. The fiscal year 2017 contribution was determined as part of the January 1, 2015 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. The actuarial valuation for the Plan year ending December 31, 2016 resulted in an actuarially determined contribution of \$3,756,283 for the fiscal year ending June 30, 2018, based on the Plan's current funding policy.

Subsequent to June 30, 2017, the actuarial valuation for the Plan year ending December 31, 2017 was completed. The actuarial valuation resulted in an actuarially determined contribution of \$3,156,661 for the fiscal year ending June 30, 2019, based on the Plan's current funding policy. For the Plan year ending December 31, 2017, the Plan's actuarial funded ratio was 105.44 percent.

The actuarial valuations for the Plan years ending December 31, 2016 and 2017, which determine the actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

#### **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, 2017 and 2016 will be based on the December 31, 2016 and 2015 measurement date, respectively.

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

		2016	2015
Total pension liability	\$	204,390,738 \$	204,502,350
Plan fiduciary net position	_	(204,514,679)	(199,462,190)
Plan's net pension (asset) liability	\$	(123,941) \$	5,040,160
	_		
Plan fiduciary net position as a percentage of the			
total pension liability		100.06%	97.54%

Changes in Net Pension Liability are as follows:

				Increase		
			(	(Decrease)		
	Т	otal Pension	PI	an Fiduciary	1	Net Pension
		Liability	1	Net Position	Lia	ability (Asset)
		(a)		(b)		(a) - (b)
Balances at December 31, 2015	\$	204,502,350	\$	199,462,190	\$	5,040,160
Changes for the year:						
Service cost		4,226,985		-		4,226,985
Interest		14,966,559		-		14,966,559
Differences between Expected						
and Actual Experience		(2,233,762)		-		(2,233,762)
Changes of Assumptions		(2,932,883)		-		(2,932,883)
Contributions - employer		-		5,243,146		(5,243,146)
Contributions - rollovers		-		549,781		(549,781)
Contributions - member		-		5,294		(5,294)
Net investment income		-		13,834,111		(13,834,111)
Benefit payments		(14,138,511)		(14,138,511)		-
Administrative expense		<u>-</u>		(441,332)		441,332
Net changes		(111,612)		5,052,489		(5,164,101)
Balances at December 31, 2016	\$	204,390,738	\$	204,514,679	\$	(123,941)

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 27 years remaining as of January
	1, 2014 and 26 years remaining as of January 1, 2015
Discount rate	7.5%
Salary increase	From 2.80% to 5.15% for January 1, 2014 and January 1, 2015,
	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 December 31, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013.

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, 2016 and 2015 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	2016	2015
Domestic equity	5.6%	7.2%
Non-U.S. equity	7.2%	7.4%
Real estate equity	6.3%	6.5%
Debt securities	1.6%	3.7%
Cash and deposits	0.6%	2.6%

#### Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2016 and 2015. 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, 2016, 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%		Current		1%	
	Decrease		ecrease Discount		Increase	
	 (6.5%)	Ra	ate (7.5%)		(8.5%)	
Plan's net pension liability	\$ 16,434,925	\$	(123,941)	\$	(14,585,088)	

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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, 2017, KUB recognized pension expense of \$4,674,543.

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, 2015, this average was 5.00 years. During the measurement year, there was an experience gain of \$2,233,762 with \$446,752 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$1,787,010. Unrecognized experience gains from prior periods were \$1,512,267 of which \$378,067 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of \$1,134,200.

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of \$2,932,884 with \$586,577 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$2,346,307.

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 \$802,197. \$160,439 of that loss 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 \$7,522,599 of which \$1,482,006 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment losses 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, 2016 of \$6,682,351. The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,408,459 at June 30, 2017 for employer contributions made between December 31, 2016 and June 30, 2017.

	 rred Outflows Resources	 erred Inflows Resources
Differences between expected and actual		
experience	\$ -	\$ 2,921,210
Changes in assumptions	-	2,346,307
Net difference between projected and actual		
earnings on pension plan investments	6,682,351	-
Contributions subsequent to measurement date	2,408,459	 
Total	\$ 9,090,810	\$ 5,267,517

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

Year ended J	Jun	e 30:
2018	\$	2,639,508
2019		231,049
2020		1,825,626
2021		(872,890)
Thereafter		-

53

For the year ended June 30, 2016, KUB recognized pension expense of \$4,665,035.

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, 2014, this average was 5.00 years. During the measurement year, there were no assumption or benefit changes. There was an experience gain of \$1,890,334 with \$378,067 of that recognized in the current year and in each of the next four years.

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 \$15,382,915. \$3,076,583 of that loss was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized investment gains from prior periods were \$6,378,310 of which \$1,594,577 was recognized as a reduction in pension expense in the current year.

Experience gains this year created a deferred inflow of resources of \$1,512,267. The combination of unrecognized investment losses this year along with unrecognized net investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2015 of \$7,522,599. The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,834,692 at June 30, 2016 for employer contributions made between December 31, 2015 and June 30, 2016.

	 rred Outflows Resources	 erred Inflows Resources
Differences between expected and actual		
experience	\$ -	\$ 1,512,267
Changes in assumptions	-	-
Net difference between projected and actual		
earnings on pension plan investments	7,522,599	-
Contributions subsequent to measurement date	 2,834,692	 
Total	\$ 10,357,291	\$ 1,512,267

#### 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.

There are 689 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There are no inactive employees or retirees currently in the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or reemployed 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.

#### Implementation of GASB 73

In fiscal year 2016, KUB adopted 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, 2017 will be based on the December 31, 2016 measurement date.

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

	2016
Total pension liability	\$ 185,077
Deferred outflows	-
Deferred inflows	-
Net impact on Statement of Net Position	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a % of covered payroll	0.42%

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

	Increas	e (Decrease)
		ll Pension iability
Balances at December 31, 2015	\$	-
Changes for the year:		
Service cost		-
Interest		-
Changes of Benefits		185,077
Differences between Expected and Actual Experience		-
Changes of Assumptions		-
Contributions – employer		-
Contributions – rollovers		-
Contributions – member		-
Net investment income		-
Benefit payments		-
Net changes		185,077
Balances at December 31, 2016	\$	185,077

#### Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation as of January 1, 2016 and projected to December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 25 years remaining as of January 1, 2016
	,
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 percent

The actuarial assumptions used in the January 1, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. The actuarial assumptions for GPB lump sum benefit election and post-disability behavior were adopted effective January 1, 2016 based upon a special experience study completed in early 2016.

#### 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 3.78% at December 31, 2016.

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, 2016, calculated using the discount rate of 3.78 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 (2.78 percent) or one percent higher (4.78 percent) than the current rate:

		1%		Current	1%
	Decrease (2.78%)			Discount	Increase
			Ra	te (3.78%)	(4.78%)
QEBA's total pension liability	\$	202.189	\$	185.077	\$ 170.430

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

For the year ended June 30, 2017, KUB recognized pension expense of \$185,077 for the QEBA. This amount is not expected to be the same as KUB's contribution to the QEBA (\$0), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions.

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, 2015, this average was 5 years. During the measurement year, there were no assumption changes or experience gains or losses. The benefit change of \$0.2 million is due to the implementation of the QEBA. Benefit changes are reflected immediately in the total pension liability of the QEBA.

#### 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 from 3 percent to 6 percent, depending on years of service, whether they contribute or not.

Matching contributions were previously remitted to the KUB Pension Plan (a separate defined benefit plan) in the name of the participant for employees hired prior to January 1, 2011. As of December 9, 2015, these Pension match assets moved from the KUB Pension Plan to the 401(k) Plan. Effective December 9, 2015, all matching contributions are remitted to the 401(k) Plan. The match and nonelective contributions for employees hired on or after January 1, 2011 are paid directly by KUB. KUB funded 401(k) matching contributions and nonelective contributions of \$1,963,541 and \$1,739,057, respectively, for the years ended June 30, 2017 and 2016.

## 13. Other Post-Employment Benefits (OPEB)

The Governmental Accounting Standards Board (GASB) established standards for the measurement, recognition, and reporting of other post-employment benefits (OPEB). OPEB includes post-employment benefits other than pension, which, for KUB, is presently limited to post-employment health care. GASB Statement No. 45 (Statement No. 45) requires the recognition of the accrued OPEB liability for the respective year, plus the disclosure of the total unfunded liability.

KUB currently provides post-employment health care benefits to 567 former employees and 580 covered dependents. The cost of coverage is shared with retirees and beneficiaries. KUB recognizes its share of the cost of post-employment health care benefits as an expense as claims are paid.

KUB amended its Group Health Plan in 1999, eliminating post-employment health care benefits for all employees hired on or after July 1, 1999. As of June 30, 2017, 334 active employees were eligible for individual and dependent coverage at separation. To qualify, the employee must meet the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and be enrolled in medical coverage on their last day.

In May 2006, the State of Tennessee adopted Tennessee Code Annotated, Title 8, Chapter 50, Part 12 authorizing governmental entities to establish Trusts for the purpose of pre-funding their respective OPEB liabilities.

Although Statement No. 45 does not require pre-funding of the liability, KUB has determined that it is in the long-term economic interest of KUB and its ratepayers to establish a Trust to pre-fund KUB's OPEB liability.

Knoxville Utilities Board Other Post-Employment Benefits Trust (the "Trust") is a single-employer Other Post-Employment Benefits Plan established by the Knoxville Utilities Board (KUB) 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.

KUB makes annual contributions to the Trust at an actuarially determined rate. 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.

An actuarial valuation of KUB's Postretirement Benefit Plan was performed for the Trust as of January 1, 2014 for fiscal year June 30, 2016 and January 1, 2015 for fiscal year June 30, 2017. The following table presents the OPEB cost for the year, the amount contributed to the Trust, and changes in the net OPEB obligation for fiscal year ending June 30:

	2017	2016
a) Net OPEB Obligation/(Asset) at		
beginning of fiscal year	\$ (171,064)	\$ (174,410)
b) Annual Required Contribution (ARC)	620,015	953,221
c) Interest on Net OPEB Obligation/(Asset)	(12,830)	(13,081)
d) Adjustment to ARC	 (16,427)	 (16,427)
e) Annual OPEB Cost (b+c-d)	623,612	956,567
f) Employer Contributions	620,015	953,221
g) Net OPEB Obligation/(Asset) at		
end of fiscal year (a+e-f)	\$ (167,467)	\$ (171,064)

KUB's annual OPEB cost, the percentage of annual OPEB cost contributed to the Trust, and the net OPEB obligation for fiscal year 2017 and the two preceding years were as follows:

#### **Schedule of Employer Contributions**

Actuarial Valuation Date	Employer Fiscal Year	Annual Required Contribution	Fiscal Year Actual Contribution	Percentage Contributed	Net OPEB Obligation
1/1/2013	6/30/2015	3,497,372	3,497,372	100.00%	(174,410)
1/1/2014	6/30/2016	953,221	953,221	100.00%	(171,064)
1/1/2015	6/30/2017	620,015	620,015	100.00%	(167,467)

Total contributions to the OPEB Trust for the fiscal year ended June 30, 2017 were \$620,015. The contribution to the Trust was consistent with the annual required contribution, as determined by the Postretirement Benefit Plan's actuarial valuation as of January 1, 2015, which was \$620,015. As of June 30, 2017, the employer's OPEB obligation has been exceeded by \$167,467.

The actuarial valuation for the Plan as of January 1, 2017 has been completed. The valuation determined that the Plan's actuarial accrued liability was \$45,473,686. The actuarial value of the Plan's assets was \$48,934,219. As a result, the Plan's unfunded actuarial accrued liability was (\$3,460,533). The Plan's actuarial funded ratio was 108 percent. Due to the future implementation of GASB 75, the contributions made for fiscal year ending June 30, 2018 and 2019 will be the actuarially determined contribution instead of the annual required contribution and the actuarial cost method used to determine the contributions will change from the projected unit credit cost method to the entry age normal cost method. The actuarially determined contribution for fiscal years ending June 30, 2018 and 2019 will be zero. See Required Supplementary Information for OPEB Schedule of Funding Progress.

The actuarial valuations dated January 1, 2016 and 2017, which determine the actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The required schedule of funding progress immediately following the notes to the financial statements presents multi-year trend information about whether the actuarial value of Trust assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point.

Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Identification of actuarial methods and significant assumptions used to determine the annual required contribution for the fiscal year ending June 30, 2017:

I. Actuarial cost method	Projected unit credit cost method
II. Actuarial value of assets	Smoothed market value with
	phase-in method using a
	smoothing period of 5 years
III. Investment return	7.5%, based on the expected portfolio return
Projected salary increases	From 2.8% to 5.15%, based on years of service
Healthcare cost Trend:	
Medicare	2015 - 2030+, ranging from 4.5% to 7.27%
Non-Medicare	2015 - 2030+, ranging from 4.5% to 8.48%
IV. Amortization method	Level dollar closed (30-year)
Remaining amortization period	21 years

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.

## 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, 2017 and 2016 are summarized as follows:

2017		2016
\$ 15,360,561	\$	14,383,228
18,524,684 2 561 261		17,428,232 2,183,335
\$	\$ 15,360,561	\$ 15,360,561 \$ 18,524,684

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

	2017	2016
Accounts receivable	\$ 1,136,541	\$ 902,254

## 15. Natural Gas Supply Contract Commitments

For fiscal year 2017, the Gas Division hedged 59 percent of its total gas purchases via gas supply contracts. As of June 30, 2017, the Gas Division had hedged the price on approximately 9 percent of its anticipated gas purchases for fiscal year 2018.

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

		2018		2019		2020	2021	2022
Transportation								
Tennessee Gas Pipeline	\$	3,270,828	\$	3,270,828	\$	1,090,276	\$ - \$	-
East Tennessee Natural Gas		10,066,388		10,066,388		2,748,496	-	-
Storage								
Tennessee Gas Pipeline		1,787,976		1,787,976		595,992	-	-
East Tennessee Natural Gas		757,460		757,460		-	-	-
Saltville Natural Gas	_	1,870,560	_	1,870,560	_	1,483,600	1,290,120	1,290,120
Demand Total	\$_	17,753,212	\$	17,753,212	\$_	5,918,364	\$ 1,290,120 \$	1,290,120

Firm obligations related to purchased gas - commodity

	2018		2019	2020	2021	2022
Baseload						
ConocoPhillips	\$ 539,120	\$	-	\$ -	\$ -	\$ -
Shell Energy	1,545,810		-	-	-	-
BP Energy Company	7,539,459		7,044,621	1,647,925	-	-
CNX Gas	1,650,458		-	-	-	-
NJR Energy Services	960,986		892,628	-	-	-
Commodity Total	\$ 12,235,833	\$_	7,937,249	\$ 1,647,925	\$ -	\$ -

The total commodity values presented here are based upon firm supply obligations with each individual natural gas supplier. The firm obligations value for ConocoPhillips, 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, CNX Gas, and NJR Energy Services are based upon firm supply obligations and the applicable NYMEX strip prices on June 30, 2017.

#### 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. The total cost of such improvements is estimated to be approximately \$120 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, 2017, the Wastewater Division had issued \$505 million in bonds to fund 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 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 99.5% of manholes and gravity mains, smoke testing 99.9% of 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 352.3 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 83 percent reduction in SSOs.

As of June 30, 2017, the Wastewater Division had completed its thirteenth full year under the Consent Decree, spending \$531.7 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**

	2017							
	<b>Electric</b>	Gas Water	Wastewater					
Assets and Deferred Outflows of Resources								
Current assets	\$ 126,944,697	\$ 37,997,762 \$ 28,286,134	\$ 49,584,845					
Restricted assets	16,094,418	3,221,379 3,663,847	7,991,374					
Net capital assets	548,723,543	271,284,847 298,532,602	706,751,947					
Other assets	26,584,693	14,107,476 11,262,940	24,456,617					
Total assets	\$ 718,347,351	\$ 326,611,464 \$ 341,745,523	\$ 788,784,783					
Deferred outflows of resources	7,909,536	2,645,831 4,607,518	18,331,718					
Total assets and deferred outflows of								
resources	\$ 726,256,887	\$ 329,257,295 \$ 346,353,041	\$ 807,116,501					
Liabilities and Deferred Inflows of Resources								
Current liabilities	\$ 95,388,231	\$ 19,167,104 \$ 10,304,921	\$ 19,799,766					
Other liabilities	16,555,532	3,026,258 1,606,795	1,560,536					
Long-term debt	266,530,941	106,161,708 164,722,304	500,207,331					
Total liabilities	\$ 378,474,704	\$ 128,355,070 \$ 176,634,020	\$ 521,567,633					
Deferred inflows of resources	2,528,408	895,478 684,777	1,158,854					
Total liabilities and deferred inflows of								
resources	\$ 381,003,112	\$ 129,250,548 \$ 177,318,797	\$ 522,726,487					
Net position								
Net investment in capital assets	\$ 275,291,471	\$ 160,724,983 \$ 134,010,490	\$ 216,334,381					
Restricted	11,360,213	1,874,535 1,732,368	3,009,134					
Unrestricted	58,602,091	37,407,229 33,291,386	65,046,499					
Total net position	\$ 345,253,775	\$ 200,006,747 \$ 169,034,244	\$ 284,390,014					

## **Condensed Statement of Net Position**

	2016							
	Electric	Gas Water	Wastewater					
Assets and Deferred Outflows of Resources								
Current assets	\$ 105,152,996	\$ 28,023,783 \$ 20,524,335	\$ 44,214,264					
Restricted assets	14,749,362	3,149,495 3,356,910	7,701,096					
Net capital assets	511,260,136	263,531,420 281,257,624	687,055,971					
Other assets	37,107,982	16,503,157 10,007,552	28,159,669					
Total assets	\$ 668,270,476	\$ 311,207,855 \$ 315,146,421	\$ 767,131,000					
Deferred outflows of resources	8,543,965	3,004,672 3,273,002	19,413,063					
Total assets and deferred outflows of								
resources	\$ 676,814,441	\$ 314,212,527 \$ 318,419,423	\$ 786,544,063					
Liabilities and Deferred Inflows of Resources								
Current liabilities	\$ 87,318,966	\$ 16,464,233 \$ 10,801,558	\$ 19,868,558					
Other liabilities	16,598,461	3,410,619 2,295,413	2,761,018					
Long-term debt	237,603,282	100,163,853 142,132,182	492,466,224					
Total liabilities	\$ 341,520,709	<b>\$ 120,038,705 \$ 155,229,153</b>	\$ 515,095,800					
Deferred inflows of resources	725,888	257,085 196,595	332,699					
Total liabilities and deferred inflows of								
resources	\$ 342,246,597	\$ 120,295,790 \$ 155,425,748	\$ 515,428,499					
Net position								
Net investment in capital assets	\$ 268,462,479	\$ 159,696,458 \$ 138,069,365	\$ 205,783,783					
Restricted	10,120,406	1,820,408 1,522,884	2,737,312					
Unrestricted	55,984,959	32,399,871 23,401,426	62,594,469					
Total net position	\$ 334,567,844	\$ 193,916,737 \$ 162,993,675	\$ 271,115,564					

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# Condensed Statement of Revenues, Expenses and Changes in Net Position

	2017							
	Electric	Gas	Water	Wastewater				
Operating revenues	\$546,364,012	\$ 91,868,316	\$ 50,769,639	\$ 88,517,210				
Operating expenses	497,323,835	69,495,685	29,123,189	36,725,972				
Provision for depreciation	31,450,260	12,261,903	9,792,630	18,517,403				
Total operating expenses	528,774,095	81,757,588	38,915,819	55,243,375				
				· · · · · · · · · · · · · · · · · · ·				
Operating income	17,589,917	10,110,728	11,853,820	33,273,835				
Non-operating expense	(8,324,347)	(4,020,718)	(5,937,091)	(20,463,169)				
Change in net position before capital contributions	9,265,570	6,090,010	5,916,729	12,810,666				
Capital contributions	1,420,361		123,840	463,784				
Change in net position	10,685,931	6,090,010	6,040,569	13,274,450				
Net position								
Beginning of year	334,567,844	193,916,737	162,993,675	271,115,564				
End of year	\$345,253,775	\$ 200,006,747	\$ 169,034,244	\$ 284,390,014				

# Condensed Statement of Revenues, Expenses and Changes in Net Position

	2016						
	Electric Gas		Water			Vastewater	
Operating revenues	\$521,369,202	\$	88,441,144	\$	47,453,401	\$	83,645,509
Operating expenses	472,905,855		65,567,807		27,052,009		36,048,577
Provision for depreciation	29,490,370		11,481,432		9,055,221		18,342,674
Total operating expenses	502,396,225		77,049,239		36,107,230		54,391,251
Operating income	18,972,977		11,391,905		11,346,171		29,254,258
Non-operating expense	(8,270,894)		(3,815,512)		(5,652,869)		(20,424,080)
Change in net position before capital contributions	10,702,083		7,576,393		5,693,302		8,830,178
Capital contributions	178,396		-		301,196		690,682
Change in net position	10,880,479		7,576,393		5,994,498		9,520,860
Net position							
Beginning of year	323,687,365		186,340,344		156,999,177		261,594,704
End of year	\$334,567,844	\$	193,916,737	\$	162,993,675	\$	271,115,564
	·		·		·		·

## **Condensed Statement of Cash Flows**

	2017						
	Electric	Gas			Water	Wastewater	
Net cash provided by	Ф <b>5</b> 0 004 000	Φ.	00 070 005	Φ.	40 704 057	Φ.	40 505 405
operating activities  Net cash used in capital and	\$ 58,301,306	\$	20,879,095	\$	16,704,257	\$	49,585,495
related financing activities	(49,016,710)		(17,822,101)		(12,212,926)		(49,735,917)
Net cash provided by (used in) investing activities	(6,881,167)		(701,913)		(4,488,917)		(4,601,363)
Net increase (decrease) in	(-,,,		( - , ,		( ,,- ,		( , = = , = = - ,
cash and cash equivalents	2,403,429		2,355,081		2,414		(4,751,785)
Cash and cash equivalents, beginning of year	34,791,786		11,036,149		9,392,817		23,725,645
Cash and cash equivalents,							
end of year	\$ 37,195,215	\$	13,391,230	<u>\$</u>	9,395,231	\$	18,973,860

## **Condensed Statement of Cash Flows**

	2016						
	Electric	Gas	Water	Wastewater			
Net cash provided by							
operating activities	\$ 50,904,883	\$ 22,442,923	\$ 20,792,761	\$ 48,518,765			
Net cash used in capital and related financing activities	(59,358,278)	(36,629,153)	(32,331,239)	(56,922,694)			
Net cash provided by (used in) investing activities	(1,226,670)	(1,040,540)	,	(723,696)			
Net increase (decrease) in	(1,220,070)	(1,040,040)	(373,133)	(723,030)			
cash and cash equivalents	(9,680,065)	(15,226,770)	(11,911,677)	(9,127,625)			
Cash and cash equivalents, beginning of year	44,471,851	26,262,919	21,304,494	32,853,270			
Cash and cash equivalents,	<b>A</b> 04 <b>-</b> 04 <b>-</b> 00	<b>.</b>	<b>*</b> • • • • • • • • • • • • • • • • • • •	<b>A</b> 00 <b>7</b> 0 <b>7</b> 0 4 <b>7</b>			
end of year	\$ 34,791,786	\$ 11,036,149	\$ 9,392,817	\$ 23,725,645			

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# Knoxville Utilities Board Required Supplementary Information - Schedule of Funding Progress June 30, 2017 (Unaudited)

# **Other Post-Employment Benefits (OPEB)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
January 1, 2008	\$ -	\$108,329,141	\$108,329,141	0%	\$31,234,509	346.8%
January 1, 2009	14,593,487	100,726,738	86,133,251	14%	31,846,091	270.5%
January 1, 2010	21,275,643	58,475,364	37,199,721	36%	30,069,028	123.7%
January 1, 2011	40,749,815	64,289,254	23,539,439	63%	28,878,791	81.5%
January 1, 2012	37,907,357	61,603,466	23,696,109	62%	28,269,123	83.8%
January 1, 2013	38,571,803	63,341,531	24,769,728	61%	27,566,340	89.9%
January 1, 2014	43,409,955	46,889,808	3,479,853	93%	26,724,154	13.0%
January 1, 2015	47,705,478	47,745,640	40,162	100%	25,816,884	0.2%
* January 1, 2016	48,510,796	45,118,624	(3,392,172)	108%	25,243,127	(13.4%)
* January 1, 2017	48,934,219	45,473,686	(3,460,533)	108%	25,197,854	(13.7%)

<sup>\*</sup> The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

## **Knoxville Utilities Board**

# Required Supplementary Information - Schedule of Changes in Net Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	*Year ended December 31					
		2016		2015		2014
Total pension liability						
Service cost	\$	4,226,985	\$	4,157,062	\$	4,092,808
Interest		14,966,559		14,812,784		14,698,657
Differences between expected and actual experience		(2,233,762)		(1,890,334)		-
Changes of assumptions		(2,932,883)		-		-
Benefit payments, including refunds of member contributions		(14,138,511)		(15,350,926)		(15,533,167)
Net change in total pension liability		(111,612)		1,728,586		3,258,298
Total pension liability - beginning		204,502,350		202,773,764		199,515,466
Total pension liability - ending (a)		204,390,738	\$	204,502,350	\$	202,773,764
Plan fiduciary net position						
Contributions - employer	\$	5,243,146	\$	5,991,887	\$	5,908,541
Contributions - participants	•	555.075	*	487,546	*	475,854
Net investment income		13,788,263		(95,430)		22,292,369
Other additions		45,848		30,879		29,733
Benefit payments, including refunds of member contributions		(14,044,511)		(15,274,926)		(15,405,167)
Administrative expense		(441,332)		(397,160)		(378,085)
Death benefits		(94,000)		(76,000)		(128,000)
Net change in plan fiduciary net position**		5,052,489		(9,333,204)		12,795,245
Plan fiduciary net position - beginning**		199,462,190		208,795,394		196,000,149
Plan fiduciary net position - ending (b)**	\$	204,514,679	\$	199,462,190	\$	208,795,394
Plan's net pension liability - ending (a) - (b)	\$	(123,941)	\$	5,040,160	\$	(6,021,630)
Plan fiduciary net position as a percentage of the total						
pension liability		100.06%		97.54%		102.97%
Covered payroll	\$	44,437,747	\$	44,446,743	\$	44,076,351
Plan's net pension liability as a percentage of						
covered payroll		(0.28%)		11.34%		(13.66%)

#### Notes to Schedule:

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

<sup>\*\*</sup> Excludes amounts related to 401(k) matching contributions.

### **Knoxville Utilities Board**

# Required Supplementary Information - Schedule of Employer Pension Contributions

June 30, 2017 (Unaudited)

	*Year ended December 31									
		2016	2015	2014						
Actuarially determined contribution Contribution in relation to the actuarially	\$	5,243,146 \$	5,991,887 \$	5,908,541						
determined contribution		5,243,146	5,991,887	5,908,541						
Contribution deficiency	\$	- \$	- \$	_						
Covered payroll Contributions as a percentage of	\$	44,437,747 \$	44,446,743 \$	44,076,351						
covered payroll		11.80%	13.48%	13.41%						

#### Notes to Schedule:

Valuation Dates: January 1, 2013, January 1, 2014 and January 1, 2015

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.

#### 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 closed period with 26 years remaining as of January 1, 2015 Discount rate: 8% at January 1, 2013, 7.5% at January 1, 2014 and January 1, 2015 Salary increases: From 2.58% to 7.92% for January 1, 2013 and from 2.80% to 5.15% for

January 1, 2014 and January 1, 2015, based on years of service

Mortality: Sex distinct RP-2000 Combined Mortality projected to 2018 using Scale AA for the January 1, 2013

valuation. Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA for the

January 1, 2014 and January 1, 2015 valuations.

Inflation: 2.8 percent

<sup>\*</sup> 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.

### **Knoxville Utilities Board**

# Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement

Schedule of Changes in Total Pension Liability and Related Ratios June 30, 2017 (Unaudited)

	Year ended December 31 2016
Total pension liability	
Service cost	\$ -
Interest (includes interest on service cost)	-
Changes of benefit terms	185,077
Differences between expected and actual experience	-
Changes of assumptions	-
Benefit payments, including refunds of member contributions	-
Net change in total pension liability	185,077
Total pension liability - beginning	-
Total pension liability - ending	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a percentage of covered payroll	0.42%

#### **Notes to Schedule:**

<sup>\*</sup> 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**

# **Supplemental Information - Schedule of Insurance in Force June 30, 2017**

(Unaudited) Schedule 1

#### 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), and OPEB Trust funds. 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 - \$1,500,000 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 \$450,000 per individual participant.



phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

Report of Independent Auditors 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, 2017, and the related notes to the financial statements, which collectively comprise KUB's basic financial statements, and have issued our report thereon dated October 18, 2017.

#### **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 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 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*.

#### **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 18, 2017



# **Electric Division**

# Financial Statements and Supplemental Information June 30, 2017 and 2016

#### **KUB Board of Commissioners**

Celeste Herbert - Chair

John Worden - Vice Chair

Dr. Jerry W. Askew

Kathy Hamilton

Sara Hedstrom Pinnell

Tyvi Small

Nikitia Thompson

### Management

#### Mintha Roach

President and Chief Executive Officer

#### **Mark Walker**

Senior Vice President and Chief Financial Officer

#### **Susan Edwards**

Senior Vice President and Chief Administrative Officer

#### **Gabe Bolas**

Senior Vice President and Chief Engineer

#### **Eddie Black**

Senior Vice President

#### **Derwin Hagood**

Senior Vice President of Operations

#### Mike Bolin

Vice President

#### **Julie Childers**

Vice President

#### John Gresham

Vice President

#### **Dawn Mosteit**

Vice President

#### Paul Randolph

Vice President

# **Knoxville Utilities Board Electric Division Index**

June 30, 2017 and 2016

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phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

#### Independent Auditors' 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, 2017 and 2016, 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

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, 2017 and 2016, and the changes in financial position and cash flows thereof 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 24 and the required supplementary information on pages 54 through 57 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 are 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, 2017 and 2016, the changes in its financial position, or, where applicable, 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 18, 2017, 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 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 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 18, 2017

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, 2017 and 2016, 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, 2017 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 205,088 electric customers over a 688 square mile service area and maintains 5,343 miles of service lines and 63 electric substations to provide 5.5 million megawatt hours to its customers annually.

KUB's electric system experienced a record peak in demand of 1,328 megawatt hours in February 2015.

KUB's electric system had a strong year for reliability with only 1.95 hours of service interruption for the average customer in fiscal year 2017.

KUB has added 5,706 electric system customers over the past three years representing annual growth of less than one percent. In fiscal year 2017, 2,245 customers were added.

The typical residential customer's average monthly electric bill was \$106.90 as of June 30, 2017, representing an increase of \$5.12 compared to June 30, 2016. The increase in the monthly bill during fiscal year 2017 was the result of the flow through of TVA wholesale rate adjustments, previously under recovered wholesale power costs and KUB's one percent electric rate increase, which added \$1.00 to the monthly residential customer charge.

KUB's electric system was impacted by a storm event in May 2017 that resulted in a cost of \$1.2 million to the system. KUB has applied for \$0.9 million in reimbursements in fiscal year 2018 from the Federal Emergency Management Agency (FEMA) to offset the cost of the 2017 event.

The Knoxville News Sentinel recognized KUB as one of Knoxville's Top Workplaces in 2017. KUB was among 30 outstanding companies selected for the award. Companies were measured on several qualities, such as company leadership, career opportunities, workplace flexibility, compensation and benefits, and the impact company policies have on innovation, productivity and morale of its workforce.

KUB's electric system maintains its Diamond level designation by the American Public Power Association's (APPA) Reliable Public Power Provider (RP3) program from 2015, 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 the 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.

KUB's Century II programs were resumed in 2011, after a break due to the economic recession. At that time, the KUB Board endorsed a ten-year funding plan for the Electric Division, which includes a combination of rate increases and debt issues to fully fund the electric system's Century II program.

In April 2014, KUB management provided the Board an updated assessment of the overall condition of each utility system, including a recommendation for annual rate increases for each division for the next three fiscal years.

In June 2014, the Board approved three annual rate increases for the Electric Division to support the Century II program. The July 2014, July 2015 and July 2016 rate increases each provided an additional \$5 million in annual revenue to help fund the Electric Division.

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 \$126.5 million on Grid Modernization, of which the Electric Division's share is approximately \$88.3 million. The deployment is funded in large part by debt issues and incremental rate increases. As of June 30, 2017, the Electric Division completed its first-year deployment of advanced meters. The electric system replaced approximately 17 percent of electric meters, spending \$8.2 million on the deployment.

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 electric rate increases are effective October 2017, October 2018, and October 2019 and are expected to provide an additional \$10.9 million, \$11.2 million, and \$5.7 million in annual revenue, respectively, to help fund the Electric Division.

During the fiscal year, KUB replaced 2,345 poles, exceeding the target level of 2,200, and replaced 11.3 miles of underground electric cable while staying on track with Century II goals and within the Electric Division's total capital budget.

#### **Financial Highlights**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

The Division's net position during the year increased \$10.7 million compared to an \$10.9 million increase last fiscal year.

Operating revenue increased \$25 million or 4.8 percent over the prior fiscal year. The increase in operating revenue was the result of additional revenue from KUB's one percent electric rate increase, the flow through of TVA rate adjustments, and the flow through of prior year under 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 nine percent of Electric Division sales revenue was used to purchase electric power from TVA for the fiscal year ended June 30, 2017. Purchased power expense increased \$19.1 million compared to last fiscal year. Warmer summer and spring months offset a very mild winter in the electric system's service territory to result in a 0.3 percent increase in billed power sales compared to fiscal year 2016.

Margin on electric sales (operating revenue less purchased power expense) increased \$5.9 million or 4.9 percent, reflecting additional revenue from the KUB electric rate increase.

Operating expenses (excluding purchased power expense) increased \$7.3 million or 7.3 percent. Operating and maintenance (O&M) expenditures increased \$4.2 million or 7.7 percent. Depreciation expense increased \$2 million or 6.6 percent. Taxes and tax equivalents were \$1.1 million, or 7 percent, higher than the prior fiscal year.

Interest income was \$0.4 million more than the prior fiscal year. Interest expense increased \$0.7 million or 7.5 percent, primarily due to interest expense on long-term bonds issued in July 2016.

Capital contributions increased \$1.2 million, reflecting a higher level of electric system assets provided to KUB during the fiscal year.

Total capital assets (net) increased \$37.4 million or 7.3 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 2017, KUB sold \$40 million in electric system revenue bonds for the purpose of funding electric system capital improvements and also sold \$23.4 million in electric system revenue refunding bonds to refinance existing electric system bonds at lower interest rates. The refunding produced total debt service savings of \$3.2 million over the life of the bonds (\$2.8 million on a net present value basis).

Long-term debt represented 43.5 percent of the Division's capital structure as of June 30, 2017, compared to 41.6 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 3.29. Maximum debt service coverage was 3.10.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's net position during the year increased \$10.9 million compared to an \$11.1 million increase last fiscal year. A restatement to fiscal year 2014's net position based on a change in method of accounting for pension expense reduced the total net position by \$0.4 million during fiscal year 2015. This change resulted in a net increase of \$10.7 million in the Division's net position during fiscal year 2015.

Operating revenue decreased \$11.8 million or 2.2 percent over the prior fiscal year. The decrease in operating revenue was the net result of additional revenue from KUB's one percent electric rate increase, the flow through of TVA rate adjustments, a 3.1 percent decline in total power sales, and the flow through of prior year over recovered purchase power costs to electric customers. KUB flows changes to wholesale power rates directly through to its retail electric rates via its Purchased Power Adjustment.

Seventy nine percent of Electric Division sales revenue was used to purchase electric power from TVA for the fiscal year ended June 30, 2016. Purchased power expense decreased \$17.2 million compared to last year, due a very mild winter that resulted in a 3.1 percent decline in total power sales. Lower sales mitigated the impact of a 1.5 percent wholesale power rate increase from TVA.

Margin on electric sales (operating revenue less purchased power expense) increased \$5.3 million or 4.7 percent, reflecting additional revenue from the KUB electric rate increases.

Operating expenses (excluding purchased power expense) increased \$4.1 million or 4.2 percent. Depreciation expense increased \$3.6 million or 13.9 percent. Taxes and tax equivalents were \$0.7 million, or 4.8 percent, higher than the prior fiscal year. Operating and maintenance (O&M) expenditures decreased \$0.3 million or 0.5 percent.

Interest income was \$0.2 million more than the prior fiscal year. Interest expense increased \$0.7 million or 8.3 percent, primarily due to the additional interest accrued on long-term bonds issued in August 2014 and April 2015.

Capital contributions increased \$0.2 million, reflecting a higher level of electric system assets provided to KUB during the fiscal year.

Total plant assets (net) increased \$30.5 million or 6.3 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.

Long-term debt represented 41.6 percent of the Division's capital structure as of June 30, 2016, compared to 43.3 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 3.57. Maximum debt service coverage was 3.28.

#### **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)	2017		2016		2015
Current, restricted and other assets	\$ 169,624	\$	157,010	\$	190,359
Capital assets, net	548,724		511,260		480,798
Deferred outflows of resources	7,909		8,544	_	5,411
Total assets and deferred outflows of resources	726,257	_	676,814		676,568
Current and other liabilities	111,945		103,918		101,489
Long-term debt outstanding	266,531		237,603		248,330
Deferred inflows of resources	2,528		726		3,062
Total liabilities and deferred inflows of resources	381,004	_	342,247	_	352,881
Net position					
Net investment in capital assets	275,291		268,462		228,768
Restricted	11,360		10,120		9,091
Unrestricted	58,602		55,985	_	85,828
Total net position	\$ 345,253	\$	334,567	\$_	323,687

#### **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 2017 Compared to Fiscal Year 2016

Current, restricted and other assets increased \$12.6 million or 8 percent. The change reflects an increase in general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments) of \$9.9 million, an increase in inventories of \$4.2 million primarily due to Grid Modernization materials and a net increase in operating contingency reserves of \$0.8 million.

KUB under recovered \$1.4 million in purchased power costs from its customers through its Purchased Power Adjustment mechanism in fiscal year 2016, as compared to a \$4 million over recovery in fiscal year 2017. Fiscal year 2016's under recovery of costs was collected from customers during fiscal year 2017 through adjustments to rates via the Purchased Power Adjustment.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Current, restricted and other assets decreased \$33.3 million or 17.5 percent. The decrease in current assets reflects the utilization of \$20.5 million in bond proceeds, a decrease in general fund cash of \$9.7 million and a decrease in accounts receivable of \$4.1 million.

KUB under recovered \$1.4 million in purchased power costs from its customers through its Purchased Power Adjustment mechanism in fiscal year 2016, as compared to a \$0.5 million over recovery in fiscal year 2015. This under recovery of costs will be collected from customers next fiscal year through adjustments to rates via the Purchased Power Adjustment.

#### **Capital Assets**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Capital assets, net of depreciation, increased \$37.4 million or 7.3 percent. Major capital expenditures included \$34.4 million for distribution system improvements, \$8.3 million for pole replacements, \$4.7 million for installation or replacement of electric services, \$2.2 million for trucks and equipment, \$1.8 million for upgrades to various information systems, \$1.7 million for tools and equipment, \$1.7 million for the purchase of property, and \$1.3 million for Grid Modernization Supervisory Control and Data Acquisition (SCADA).

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Capital assets, net of depreciation, increased \$30.5 million or 6.3 percent. Major capital expenditures included \$25.1 million for distribution system improvements, \$7.7 million for pole replacements, \$7 million for installation or replacement of electric services, \$4.9 million for Grid Modernization, \$4.1 million for upgrades to various information systems, \$1.8 million for replacement and relocation of electric system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, \$1.4 million for trucks and equipment, and \$1.4 million for street lighting improvements.

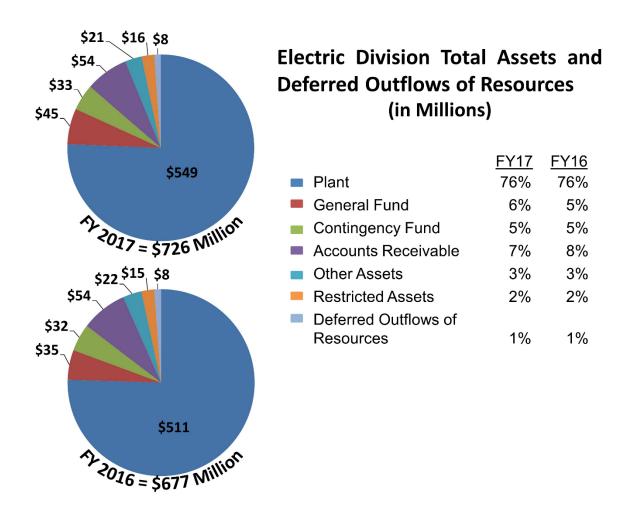
#### **Deferred Outflows of Resources**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred outflows of resources decreased \$0.6 million compared to the prior fiscal year primarily due to a decrease in pension outflow of \$0.6 million.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred outflows of resources increased \$3.1 million compared to the prior fiscal year primarily due to an increase in pension outflow of \$3.5 million.



#### **Current and Other Liabilities**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Current and other liabilities increased \$8 million or 7.7 percent. Accounts payable increased \$6.8 million, which was offset by a decline in the actuarially determined net pension obligation of \$2.4 million and a \$1.3 million decrease in accrued expenses. The outstanding balance on TVA conservation loans declined by \$2.2 million, as KUB ceased issuance of any new loans in fiscal year 2016.

KUB over recovered \$4 million in wholesale power costs from its customers in fiscal year 2017, as compared to a \$1.4 million under recovery in fiscal year 2016. 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 2016 Compared to Fiscal Year 2015

Current and other liabilities increased \$2.4 million or 2.4 percent, due in part to an actuarially determined net pension obligation of \$2.4 million recognized in fiscal year 2016. Accounts payable decreased \$1.9 million, which was offset by a \$1.7 million increase in accrued expenses. The outstanding balance on TVA conservation loans declined by \$1.9 million, as KUB ceased issuance of any new loans in fiscal year 2016.

KUB over recovered \$0.5 million in wholesale power costs from its customers in fiscal year 2015, as compared to a \$1.4 million under recovery in fiscal year 2016. This over recovery of costs was flowed back to KUB's electric customers during fiscal year 2016 through adjustments to rates via the Purchased Power Adjustment.

#### **Long-Term Debt**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Long-term debt increased \$28.9 million or 12.2 percent. \$40 million in new revenue bonds issue in July 2016 added to KUB's outstanding debt. In March 2017, revenue refunding bonds of \$23.4 million were issued to refinance bonds sold in 2005. The additional issuances offset by the defeased bonds and scheduled debt repayments accounted for the change in long-term debt.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Long-term debt decreased \$10.7 million or 4.3 percent, primarily due to \$10.1 million of long-term bond debt that shifted to current liabilities as payable within the next year.

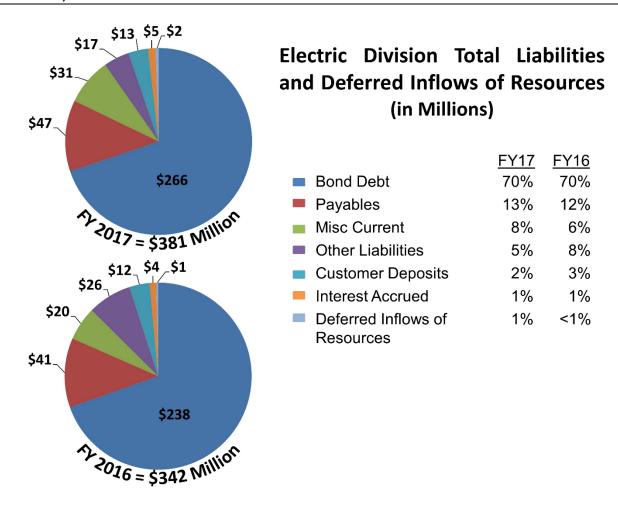
#### **Deferred Inflows of Resources**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred inflows increased \$1.8 million compared to the prior fiscal year due to differences in pension inflows.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred inflows decreased \$2.3 million compared to the prior fiscal year due to differences in pension inflows.



#### **Net Position**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Net investment in capital assets increased by \$6.8 million or 2.5 percent. The increase was primarily the result of an increase of \$37.4 million in net electric plant additions offset by an increase in current portion of revenue bonds and total long-term debt of \$30.2 million. Unrestricted net position increased \$2.6 million, primarily due to the \$11.3 million increase in current and other assets. Restricted net position increased \$1.2 million due to the net increase of the electric bond fund and the associated interest payable.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Unrestricted net position decreased \$29.8 million, primarily due to the \$33.3 million decrease in current and other assets. Restricted net position increased \$1 million due to the net increase of the electric bond fund and the associated interest payable. Net investment in capital assets increased by \$39.7 million or 17.4 percent. The increase was primarily the result of an increase of \$30.5 million in net electric plant additions.

#### 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)		2017		2016	2015
Operating revenues	\$	546,364	\$	521,369	\$ 533,206
Less: Purchased power expense		421,727	_	402,604	419,773
Margin from sales		124,637		118,765	113,433
Operating expenses					
Distribution		36,526		33,062	34,408
Customer service		6,641		6,589	6,546
Administrative and general		15,522		14,856	13,822
Depreciation		31,450		29,490	25,888
Taxes and tax equivalents		16,908	_	15,795	15,069
Total operating expenses		107,047		99,792	95,733
Operating income	_	17,590	_	18,973	17,700
Interest income		899		549	322
Interest expense		(9,954)		(9,258)	(8,549)
Other income/(expense)	_	731	_	438	1,585
Change in net position before capital contributions	_	9,266	_	10,702	11,058
Capital contributions		1,420		178	12
Change in net position	\$	10,686	\$	10,880	\$ 11,070

# 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 2017 Compared to Fiscal Year 2016

The Division's net position increased \$10.7 million, which was \$0.2 million less than last year's \$10.9 million increase. The lower earnings were attributable to the net effect of a \$5.9 million increase in margin on sales, a \$1.2 million increase in capital contributions, a \$0.4 million increase in interest income offset by a \$7.3 million rise in operating expenses, and a \$0.7 million increase in interest expense.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

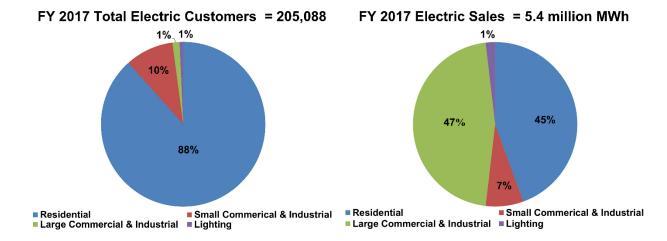
The Division's net position increased \$10.9 million, which was \$0.2 million less than last year's \$11.1 million increase. A restatement to fiscal year 2014's net position based on a change in method of accounting for the pension reduced the total net position by \$0.4 million during fiscal year 2015 to \$10.7 million. The lower earnings were attributable to the net effect of a \$5.3 million increase in margin on sales, a \$4.1 million rise in operating expenses, a \$0.7 million increase in interest expense, and a \$1.1 million decrease in other income.

#### **Margin from Sales**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Margin on electric sales grew \$5.9 million, reflecting increased revenue due to the July 2016 rate increase.

Operating revenue increased \$25 million or 4.8 percent, reflecting the net result of additional revenue from KUB's one percent electric rate increase effective July 2016, the flow through of previously under recovered wholesale power costs, and the flow through of TVA rate adjustments. A mild winter offset by a hotter than normal summer and spring during the fiscal year resulted in a 0.3 percent increase in billed power sales volumes. Purchased power expense increased \$19.1 million over last year. Power sales of 5.4 million MWh were consistent with the prior fiscal year.



Residential customers represented 88 percent of total electric system customers and accounted for 45 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 20.6 percent of KUB's billed volumes. Those ten customers represent two industrial and eight commercial customers, including four governmental customers. Sales to Gerdau Ameristeel, KUB's largest industrial customer, accounted for 5.4 percent of total electric system sales.

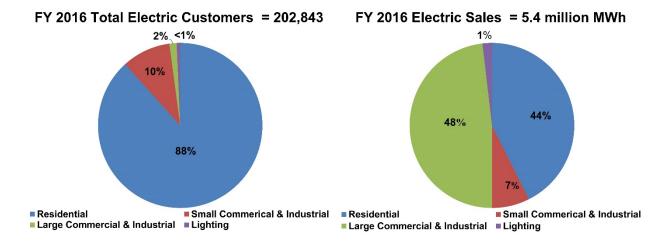
KUB has added 5,706 electric system customers over the past three years, representing annual growth of less than one percent. Fiscal year 2017 customer growth of 2,245 was the highest in nine years.

Electric billed sales volumes have remained consistent over the past three years. Fiscal year 2017 sales were impacted by a mild winter, but were offset by warmer weather during the summer and spring months.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Margin on electric sales grew \$5.3 million, reflecting higher revenues due to the July 2014 and July 2015 rate increases.

Operating revenue decreased \$11.8 million or 2.2 percent, reflecting the net result of additional revenue from KUB's one percent electric rate increase effective July 2015 and the flow through of TVA rate adjustments, offset by the second mildest winter in the last forty years. The milder winter resulted in a 3.1 percent decline in total power sales volumes. Purchased power expense decreased \$17.2 million over last year. Power sales of 5.4 million MWh were 0.1 million MWh less than the prior fiscal year.



Residential customers represented 88 percent of total electric system customers and accounted for 44 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 16.2 percent of KUB's billed volumes. Those ten customers represent five industrial and five commercial customers, including two governmental customers. Sales to Gerdau Ameristeel, KUB's largest industrial customer, accounted for 5.7 percent of total electric system sales.

KUB has added 4,487 electric system customers over the past three years, representing annual growth of less than one percent.

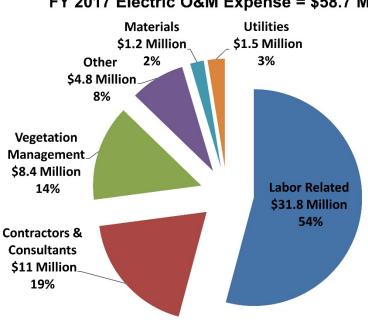
Electric sales volumes have remained consistent over the past three years with fiscal year 2016 residential sales being impacted by the mild winter.

#### **Operating Expenses**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Operating expenses (excluding purchased power expense) increased 7.3 million, or 7.3 percent, compared to fiscal year 2016. 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 \$3.5 million or 10.5 percent, primarily from increased labor related expenses from storm restoration and outside contractor use.
- Customer service expenses increased \$0.1 million from the prior year.
- Administrative and general expenses increased \$0.7 million or 4.5 percent, primarily due to labor related expenses.



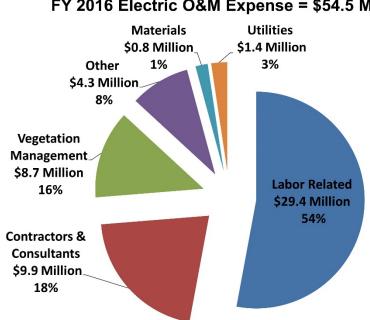
### FY 2017 Electric O&M Expense = \$58.7 Million

- Depreciation expense for fiscal year 2017 increased \$2 million or 6.6 percent. This increase
  was primarily attributable to Century II initiatives, upgrades to information systems, substation
  upgrades 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 \$1.1 million higher than the prior fiscal year primarily due to increased plant in service levels.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Operating expenses (excluding purchased power expense) increased 4.1 million, or 4.2 percent, compared to fiscal year 2015. 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.

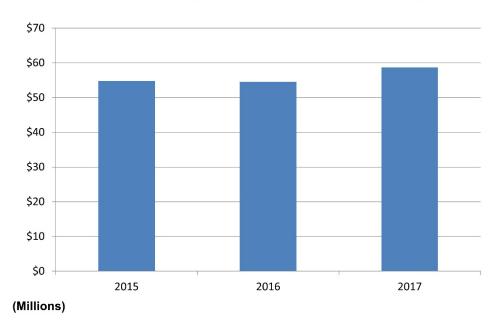
- Distribution expenses decreased \$1.3 million or 3.9 percent, primarily from reduced outside contractor and consultant use.
- Customer service expenses were consistent with the prior year.
- Administrative and general expenses increased \$1 million or 7.5 percent, primarily due to higher pension expense.



### FY 2016 Electric O&M Expense = \$54.5 Million

- Depreciation expense for fiscal year 2016 increased \$3.6 million or 13.9 percent. This increase was primarily attributable to Century II initiatives, substation upgrades and the impairment of meters due to the Grid Modernization project that calls for accelerated depreciation of meters being replaced over the next four years as part of the project.
- Taxes and tax equivalents were \$0.7 million higher than the prior fiscal year primarily due to increased plant in service levels.

# **Electric Division Operation & Maintenance Expense**



#### Other Income and Expense

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Interest income increased \$0.4 million compared to the prior fiscal year, primarily due to modest increases in interest rates over the prior fiscal year.

Interest expense increased \$0.7 million or 7.5 percent, primarily due to interest on bonds issued during the fiscal year.

Other income (net) increased \$0.3 million, primarily due to the recognition of \$0.9 million in non-operating income for future reimbursement by FEMA to offset the cost of restoration expenses related to the May 2017 storm.

The Division's capital contributions increased \$1.2 million due to more donated assets compared to the prior fiscal year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Interest income increased \$0.2 million compared to the prior fiscal year.

Interest expense increased \$0.7 million or 8.3 percent, primarily due to the additional interest accrued on long-term revenue bonds issued in August 2014 and April 2015.

Other income (net) decreased \$1.1 million, primarily due to the recognition of \$1.6 million in non-operating income for future reimbursement of restoration expenses related to the February 2015 ice storm in fiscal year 2015.

The Division's capital contributions increased \$0.2 million due to more donated assets compared to the prior fiscal year.

# **Capital Assets**

### Capital Assets As of June 30 (Net of Depreciation)

(in thousands of dollars)		2017		2016	2015		
Distribution Plant							
Services and Meters	\$	22,959	\$	15,719	\$	17,964	
Electric Station Equipment		53,178		56,487		34,643	
Poles, Towers and Fixtures		113,640		104,867		93,780	
Overhead Conductors		90,886		84,937		79,199	
Line Transformers		60,424		59,587		56,774	
Other Accounts	_	113,948	_	113,141		108,888	
<b>Total Distribution Plant</b>	\$	455,035	\$	434,738	\$	391,248	
General Plant	_	30,532	_	29,590		27,312	
Total Plant Assets	\$	485,567	\$	464,328	\$	418,560	
Work In Progress	_	63,157	_	46,932		62,238	
Total Net Plant	\$	548,724	\$	511,260	\$	480,798	

#### Fiscal Year 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$548.7 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 \$37.4 million or 7.3 percent over the end of the last fiscal year.

(in Millions) \$23 \$30.5 \$113.9 \$53.2 \$60.4 \$113.6 \$63.2 \$90.9 ■ Other Distribution = 21% ■ Poles, Towers & Fixtures = 21% ■ Overhead Conductors = 17% ■ Work in Progress = 11% ■ Line Transformers = 11% ■ Electric Station Equipment = 10% ■ General Plant = 5% ■ Services & Meters = 4%

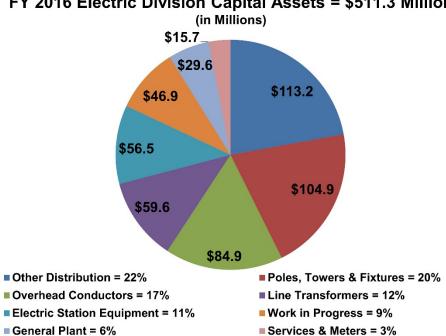
FY 2017 Electric Division Capital Assets = \$548.7 Million

Major capital asset expenditures during the year were as follows:

- \$34.4 million for electric distribution system improvements
- \$8.3 million for pole replacements
- \$4.7 million for installation of new electric services and the upgrade or replacement of existing services
- \$2.2 million for trucks and equipment
- \$1.8 million for upgrades to various information systems
- \$1.7 million for tools and equipment
- \$1.7 million for the purchase of property
- \$1.3 million for Grid Modernization SCADA

#### Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$511.3 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 \$30.5 million or 6.3 percent over the end of the last fiscal year.



FY 2016 Electric Division Capital Assets = \$511.3 Million

Major capital asset expenditures during the year were as follows:

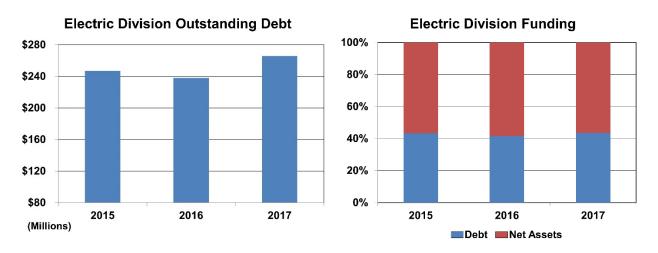
- \$25.1 million for electric distribution system improvements
- \$7.7 million for pole replacements
- \$7 million for installation of new electric services and the upgrade or replacement of existing services
- \$4.9 million for Grid Modernization
- \$4.1 million for upgrades to various information systems
- \$1.8 million for the replacement and relocation of electric system assets to accommodate TDOT highway improvement projects
- \$1.4 million for trucks and equipment
- \$1.4 million for street lighting improvements

#### **Debt Administration**

The Division's outstanding debt was \$265.8 million at June 30, 2017. The bonds are secured solely by revenues of the Electric Division. Debt as a percentage of the Division's capital structure was 43.5 percent in 2017, 41.6 percent in 2016, and 43.3 percent at the end of fiscal year 2015. 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)	2017	2016	2015
Revenue bonds	\$ 265,795	\$ 237,985	\$ 247,055
Total outstanding debt	\$ 265,795	\$ 237,985	\$ 247,055



The Division will pay \$129.3 million in principal payments over the next ten years, representing 48.6 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 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$265.8 million in outstanding debt (including the current portion of revenue bonds), compared to \$238 million last year, an increase of \$27.8 million or 11.7 percent. The increase is attributable to the net effect of new revenue and refunding bond issuances. The Division's weighted average cost of debt at June 30, 2017 was 3.76 percent (3.62 percent including the impact of Build America Bonds rebates).

KUB sold \$40 million in electric system revenue bonds in July 2016 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 2.75 percent.

KUB sold \$23.4 million in electric system revenue refunding bonds in March 2017 for the purpose of refinancing existing electric system bonds at lower interest rates. KUB will realize a total debt service savings of \$3.2 million over the life of the bonds (\$2.8 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.18 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2017, the Division's revenue bonds were rated AA+ by Standard & Poor's and Aa2 by Moody's Investors Service.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$238 million in outstanding debt (including the current portion of revenue bonds), compared to \$247.1 million last year, a decrease of \$9.1 million or 3.7 percent. The decrease is attributable to the scheduled repayment of bond debt. The Division's weighted average cost of debt at June 30, 2016 was 3.89 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2016, 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 2018.

In June 2017, the KUB Board adopted the next three years of rate increases for all four Divisions to help fund the ongoing Century II infrastructure programs for each system. The approved electric rate increases are effective October 2017, October 2018, and October 2019 and are expected to provide an additional \$10.9 million, \$11.2 million, and \$5.7 million, respectively, in annual revenue to help fund the Electric Division.

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 long-term debt includes \$22.6 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 6.9 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

GASB No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 83, Certain Asset Retirement Obligations, is effective for fiscal years beginning after June 15, 2018. GASB Statement No. 84, Fiduciary Activities, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 85, Omnibus 2017, and GASB Statement No. 86, Certain Debt Extinguishment Issues, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 87, Leases, is effective for fiscal years beginning after December 15, 2019. 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 2017.

#### **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, 2017 and 2016. 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, 2017 and 2016

		2017	2016		
Assets and Deferred Outflows of Resources					
Current assets:					
Cash and cash equivalents	\$	37,195,215	\$	34,791,786	
Short-term investments		7,489,575		-	
Short-term contingency fund investments		15,045,262		6,950,668	
Other current assets		397,746		374,356	
Accrued interest receivable		36,910		23,575	
Accounts receivable, less allowance of uncollectible accounts					
of \$489,884 in 2017 and \$594,022 in 2016		53,567,020		53,968,641	
Inventories		12,530,569		8,359,135	
Prepaid expenses		682,400	_	684,835	
Total current assets		126,944,697	_	105,152,996	
Restricted assets:		40.070.000		4.4.700.004	
Electric bond fund		16,079,330		14,739,081	
Other funds		15,088	_	10,281	
Total restricted assets		16,094,418	_	14,749,362	
Electric plant in service		903,531,703		859,020,997	
Less accumulated depreciation		(417,964,937)		(394,693,191)	
Less accumulated depreciation		485,566,766	_	464,327,806	
Retirement in progress		1,580,649		1,071,534	
Construction in progress		61,576,128		45,860,796	
Net plant in service	•	548,723,543	_	511,260,136	
Net plant in Selvice	•	340,723,343	_	311,200,130	
Other assets:					
Long-term contingency fund investments		17,636,387		24,934,746	
TVA conservation program receivable		6,022,815		8,153,192	
Under recovered purchased power cost		-		1,379,643	
Other		2,925,491		2,640,401	
Total other assets		26,584,693	_	37,107,982	
Total assets		718,347,351		668,270,476	
Deferred outflows of resources:					
Pension outflow		4,363,589		4,971,500	
Unamortized bond refunding costs		3,545,947	_	3,572,465	
Total deferred outflows of resources	i	7,909,536	_	8,543,965	
Total assets and deferred outflows of resources	\$	726,256,887	\$ _	676,814,441	

# Knoxville Utilities Board Electric Division Statements of Net Position June 30, 2017 and 2016

	2017			2016
Liabilities, Deferred Inflows, and Net Position				
Current liabilities:				
Current portion of revenue bonds	\$	11,345,000	\$	10,110,000
Sales tax collections payable		929,375		881,833
Accounts payable		47,437,569		40,653,044
Accrued expenses		18,044,293		19,309,494
Customer deposits plus accrued interest		12,897,789		11,735,639
Accrued interest on revenue bonds	_	4,734,205	_	4,628,956
Total current liabilities	-	95,388,231	_	87,318,966
Other liabilities:				
TVA conservation program		6,236,061		8,412,853
Accrued compensated absences		4,371,334		4,344,437
Customer advances for construction		1,916,046		1,262,889
Net pension liability		29,345		2,419,277
Over recovered purchased power cost		3,957,673		-
Other		45,073		159,005
Total other liabilities	-	16,555,532	_	16,598,461
Long-term debt:				
Electric revenue bonds		254,450,000		227,875,000
Unamortized premiums/discounts	_	12,080,941	_	9,728,282
Total long-term debt		266,530,941		237,603,282
Total liabilities	-	378,474,704	_	341,520,709
Deferred inflows of resources:				
Pension inflow		2,528,408	_	725,888
Total deferred inflows of resources	_	2,528,408		725,888
Total liabilities and deferred inflows of resources	_	381,003,112	_	342,246,597
Net position				
Net investment in capital assets		275,291,471		268,462,479
Restricted for:				
Debt service		11,345,125		10,110,125
Other		15,088		10,281
Unrestricted	_	58,602,091	_	55,984,959
Total net position	_	345,253,775		334,567,844
Total liabilities, deferred inflows, and net position	\$_	726,256,887	\$ _	676,814,441

# Knoxville Utilities Board Electric Division Statements of Revenues, Expenses and Changes in Net Position Years Ended June 30, 2017 and 2016

		2017		2016
Operating revenues	\$_	546,364,012	\$	521,369,202
Operating expenses				
Purchased power		421,726,756		402,603,523
Distribution		36,525,681		33,062,072
Customer service		6,641,176		6,589,446
Administrative and general		15,522,227		14,856,340
Provision for depreciation		31,450,260		29,490,370
Taxes and tax equivalents	_	16,907,995		15,794,474
Total operating expenses	_	528,774,095	_	502,396,225
Operating income	_	17,589,917	_	18,972,977
Non-operating revenues (expenses)				
Contributions in aid of construction		1,773,994		1,632,730
Interest and dividend income		899,405		549,060
Interest expense		(9,954,448)		(9,257,913)
Amortization of debt costs		212,123		143,733
Write-down of plant for costs recovered through contributions		(1,773,994)		(1,632,730)
Other	_	518,573		294,226
Total non-operating revenues (expenses)	_	(8,324,347)		(8,270,894)
Change in net position before capital contributions		9,265,570		10,702,083
Capital contributions	_	1,420,361	_	178,396
Change in net position		10,685,931		10,880,479
Net position, beginning of year	_	334,567,844		323,687,365
Net position, end of year	\$_	345,253,775	\$	334,567,844

# Knoxville Utilities Board Electric Division Statements of Cash Flows Years Ended June 30, 2017 and 2016

		2017		2016
Cash flows from operating activities:				
Cash receipts from customers	\$	539,470,564	\$	518,450,827
Cash receipts from other operations		10,986,528		10,049,581
Cash payments to suppliers of goods or services		(450,464,944)		(439,418,959)
Cash payments to employees for services		(26,815,870)		(24,308,505)
Payment in lieu of taxes		(14,828,556)		(13,900,176)
Cash receipts from collections of TVA conservation loan program participants		2,525,020		3,067,056
Cash payments for TVA conservation loan program	_	(2,571,436)	_	(3,034,941)
Net cash provided by operating activities	_	58,301,306	_	50,904,883
Cash flows from capital and related financing activities:				
Net proceeds from bond issuance		65,828,379		-
Principal paid on revenue bonds and notes payable		(35,635,000)		(9,070,000)
(Increase) decrease in unused bond proceeds		-		20,519,850
Interest paid on revenue bonds and notes payable		(9,849,199)		(8,535,208)
Acquisition and construction of electric plant		(70,660,081)		(62,417,653)
Changes in electric bond fund, restricted		(1,340,249)		(1,762,705)
Customer advances for construction		662,158		33,177
Proceeds received on disposal of plant		203,288		241,531
Cash received from developers and individuals for capital purposes	_	1,773,994	_	1,632,730
Net cash used in capital and related financing activities	_	(49,016,710)	_	(59,358,278)
Cash flows from investing activities:				
Changes in deposit and investment accounts:				
Purchase of investment securities		(15,416,957)		(4,019,405)
Maturities of investment securities		6,931,476		2,476,455
Interest received		865,446		554,467
Other property and investments	_	738,868	_	(238, 187)
Net cash used in investing activities	_	(6,881,167)	_	(1,226,670)
Net increase (decrease) in cash and cash equivalents		2,403,429		(9,680,065)
Cash and cash equivalents, beginning of year	_	34,791,786	_	44,471,851
Cash and cash equivalents, end of year	_	37,195,215	\$_	34,791,786
Reconciliation of operating income to net cash provided by operating activities				
Operating income	\$	17,589,917	\$	18,972,977
Adjustments to reconcile operating income to net cash				
provided by operating activities:				
Depreciation expense		32,630,752		30,602,422
Changes in operating assets and liabilities:				
Accounts receivable		401,621		4,191,195
Inventories		(4,171,434)		(1,689,822)
Prepaid expenses		2,435		(35,065)
TVA conservation program receivable		2,130,377		1,874,818
Other assets		(105,366)		584,979
Sales tax collections payable		47,542		(28,741)
Accounts payable and accrued expenses		5,566,720		(353,913)
Unrecovered purchased power cost		5,337,316		(1,880,165)
TVA conservation program payable		(2,176,792)		(1,923,829)
Customer deposits plus accrued interest		1,162,150		651,269
Other liabilities		(113,932)		(61,242)
Net cash provided by operating activities	\$ _	58,301,306	\$	50,904,883
Noncash capital activities:				
Acquisition of plant assets through developer contributions	\$	1,420,361	\$	178,396

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 sevenmember 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, 2017 and 2016, 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 March 2016, the GASB issued GASB Statement No. 82 (Statement No. 82), *Pension Issues – An amendment of GASB Statements No. 67, No. 68 and No. 73.* The objective of this Statement is to address certain issues that have been raised with respect to the presentation of payroll-related measures in required supplementary information, the selection of assumptions and treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes and the classification of payments made by employers to satisfy employee contribution obligations. Statement No. 82 is effective for fiscal years beginning after June 15, 2016.

#### **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 \$1,180,492 in fiscal year 2017 and \$1,112,052 in fiscal year 2016. 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 \$1,174,673 in fiscal year 2017 and \$1,342,705 in fiscal year 2016.

### **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.

## **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, 2017 and 2016 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 and 2016 are based on a December 31, 2016 and 2015 measurement date, respectively. The net pension asset is \$123,941 (Division's share \$59,492) as of June 30, 2017 and the net pension liability is \$5,040,160 (Division's share \$2,419,277) as of June 30, 2016.

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, 2017 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 will be based on the December 31, 2016 measurement date. The total pension liability of the QEBA is \$185,077 (Division's share \$88,837) as of June 30, 2017.

The total pension liability is \$61,136 (Division's share \$29,345) as of June 30, 2017 and \$5,040,160 (Division's share \$2,419,277) as of June 30, 2016.

#### **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 differences between expected and actual experience in accordance with Statement No. 68.

#### **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 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, no loans were made through this program after October 31, 2015.

### **Subsequent Events**

KUB has evaluated events and transactions through October 18, 2017, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold \$40 million in electric system revenue bonds in August 2017 for the purpose of funding electric system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent. Debt service payments including principal and interest range from \$399,311 to \$2,070,006 with maturity in fiscal year 2048.

KUB's electric system was impacted by a storm event in May 2017 that resulted in a cost of \$1.2 million to the system. KUB has applied for \$0.9 million in reimbursements in fiscal year 2018 from the Federal Emergency Management Agency (FEMA) to offset the cost of the 2017 event.

#### **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 \$3,957,673 at June 30, 2017 and (\$1,379,643) at June 30, 2016.

## **Recently Issued Accounting Pronouncements**

In June 2015, the GASB issued GASB Statement No. 75 (Statement No. 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Statement addresses reporting by governments that provide OPEB to their employees. Statement No. 75 is effective for fiscal years beginning after June 15, 2017.

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 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 March 2017, the GASB issued GASB Statement No. 85 (Statement No. 85), *Omnibus 2017.* The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. Statement No. 85 is effective for fiscal years beginning after June 15, 2017.

In May 2017, the GASB issued GASB Statement No. 86 (Statement No. 86), *Certain Debt Extinguishment Issues*. The objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt. The Statement provides guidance for transactions in which cash and other monetary assets acquired with existing resources or resources other than the proceeds of refunding debt, are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Statement No. 86 is effective for fiscal years beginning after June 15, 2017.

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.

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:

		2017		2016
Current assets				
Cash and cash equivalents	\$	37,195,215	\$	34,791,786
Short-term investments		7,489,575		-
Short-term contingency fund investments		15,045,262		6,950,668
Other assets				
Long-term contingency fund investments		17,525,499		24,844,482
Restricted assets				
Electric bond fund		16,079,330		14,739,081
Other funds		15,088		10,281
	\$ _	93,349,969	\$ _	81,336,298

The above amounts do not include accrued interest of \$110,888 in fiscal year 2017 and \$90,264 in fiscal year 2016. 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, 2017:

		Deposit and investment maturities (in Years)						
		Fair		Less				
	_	Value		Than 1		1-5		
Supersweep NOW and Other Deposits	\$	49,322,211	\$	49,322,211	5	-		
State Treasurer's Investment Pool		-		-		-		
Agency Bonds		44,383,736		21,887,337		22,496,399		
Certificates of Deposits		647,500		647,500		-		
	\$	94,353,447	\$	71,857,048	β <u> </u>	22,496,399		
State Treasurer's Investment Pool Agency Bonds	_	49,322,211 - 44,383,736 647,500	,	49,322,211 \$ - 21,887,337 647,500	5 <u>-</u>	22,496,3		

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, 2017:

• U.S. Agency bonds of \$22,496,399, 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:

	2017		2016
Wholesale and retail customers			
Billed services	\$ 32,538,981	\$	30,849,655
Unbilled services	18,560,793		20,416,060
Other	2,957,130		3,296,948
Allowance for uncollectible accounts	(489,884)		(594,022)
	\$ 53,567,020	\$_	53,968,641

## 5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2017	2016
Trade accounts	\$ 47,437,569	\$ 40,653,044
Salaries and wages	1,273,877	1,113,204
Advances on pole rental	2,101,729	2,135,320
Self-insurance liabilities	908,059	843,930
Other current liabilities	 13,760,628	 15,217,040
	\$ 65,481,862	\$ 59,962,538

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## 6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2016	Additions		Payments	Defeased		Balance June 30, 2017	Amounts Due Within One Year
W-2005 - 3.0 - 4.5% \$	29,480,000	\$ -	\$	1,940,000 \$	25,525,000	\$	2,015,000	\$ 2,015,000
Y-2009 - 2.5 - 5.0%	5,275,000	-		1,675,000	-		3,600,000	1,750,000
Z-2010 - 1.45 - 6.35%	23,920,000	-		1,305,000	-		22,615,000	1,330,000
AA-2012 - 3.0 - 5.0%	33,850,000	-		2,540,000	-		31,310,000	2,670,000
BB-2012 - 3.0 - 4.0%	33,225,000	-		675,000	-		32,550,000	700,000
CC-2013 - 3.0 - 4.0%	9,485,000	_		450,000	-		9,035,000	475,000
DD-2014 - 2.0 - 4.0%	39,325,000	-		700,000	-		38,625,000	725,000
EE-2015 - 2.0 - 5.0%	28,425,000	-		150,000	-		28,275,000	150,000
FF-2015 - 2.0 - 5.0%	35,000,000	_		675,000	-		34,325,000	700,000
GG-2016 - 2.0-5.0%	-	40,000,000		-	-		40,000,000	775,000
HH-2017 - 2.5-5.0%	-	23,445,000	_			_	23,445,000	 55,000
Total bonds \$	237,985,000	\$ 63,445,000	\$	10,110,000 \$	25,525,000	\$ _	265,795,000	\$ 11,345,000
Unamortized Premium	9,728,282	3,222,526		697,187	172,680		12,080,941	-
Total long term debt \$	247,713,282	\$ 66,667,526	\$	10,807,187 \$	25,697,680	\$	277,875,941	\$ 11,345,000

								Amounts
	Balance					Balance		Due
	June 30,					June 30,		Within
	2015	Additions	Payments	Defeased		2016		One Year
W-2005 - 3.0 - 4.5% \$	31,350,000	\$ -	\$ 1,870,000 \$	-	\$	29,480,000	\$	1,940,000
X-2006 - 4.0 - 5.0%	1,825,000	=	1,825,000	-		-		-
Y-2009 - 2.5 - 5.0%	6,875,000	-	1,600,000	-		5,275,000		1,675,000
Z-2010 - 1.45 - 6.35%	25,205,000	-	1,285,000	-		23,920,000		1,305,000
AA-2012 - 3.0 - 5.0%	34,840,000	=	990,000	-		33,850,000		2,540,000
BB-2012 - 3.0 - 4.0%	33,875,000	-	650,000	-		33,225,000		675,000
CC-2013 - 3.0 - 4.0%	9,535,000	-	50,000	-		9,485,000		450,000
DD-2014 - 2.0 - 4.0%	40,000,000	-	675,000	-		39,325,000		700,000
EE-2015 - 2.0 - 5.0%	28,550,000	-	125,000	-		28,425,000		150,000
FF-2015 - 2.0 - 5.0%	35,000,000	-		-	_	35,000,000		675,000
Total bonds \$	247,055,000	\$ 	\$ 9,070,000 \$	-	\$	237,985,000	\$ _	10,110,000
Unamortized Premium	10,345,326	-	617,044	-	_	9,728,282		-
Total long term debt \$	257,400,326	\$ -	\$ 9,687,044 \$	-	\$	247,713,282	\$	10,110,000

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, 2017, these requirements had been satisfied.

Fiscal		Т	Grand		
Year		Principal		Interest	Total
2018	\$	11,345,000	\$	9,509,051	\$ 20,854,051
2019		11,575,000		9,293,628	20,868,628
2020		12,060,000		8,789,610	20,849,610
2021		12,565,000		8,249,330	20,814,330
2022		13,160,000		7,674,200	20,834,200
2023-2027		68,560,000		29,979,352	98,539,352
2028-2032		49,780,000		18,430,018	68,210,018
2033-2037		28,075,000		12,416,702	40,491,702
2038-2042		33,775,000		7,334,532	41,109,532
2043-2047	_	24,900,000	_	1,708,937	 26,608,937
Total	\$	265,795,000	\$_	113,385,360	\$ 379,180,360

During fiscal year 2006, KUB's Electric Division issued Series W 2005 bonds in part to retire certain existing debt and to fund electric system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series U 2001 bonds, as such amounts mature.

During fiscal year 2009, KUB's Electric Division issued Series Y 2009 bonds to fund electric system capital improvements.

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. Effective October 1, 2016 these bonds became subject to a 6.9 percent 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.

During fiscal year 2012, KUB's Electric Division issued Series AA 2012 bonds to retire a portion of outstanding Series V 2004 bonds.

During fiscal year 2013, KUB's Electric Division issued Series BB 2012 bonds to fund electric system capital improvements. KUB's Electric Division also issued Series CC 2013 bonds to retire a portion of outstanding Series X 2006 bonds.

During fiscal year 2015, KUB's Electric Division issued Series EE 2015 bonds to retire a portion of outstanding Series Y 2009 bonds. KUB's Electric Division also issued Series DD 2014 and Series FF 2015 to fund electric system capital improvements.

During fiscal year 2017, KUB's Electric Division issued Series GG 2016 bonds to fund electric system capital improvements. KUB's Electric Division also issued Series HH 2017 bonds to retire a portion of outstanding Series W 2005 bonds as follows. On April 7, 2017, \$23.5 million in revenue refunding bonds with an average interest rate of 4.1 percent were issued to advance refund \$25.5 million of outstanding bonds with an average interest rate of 4.6 percent. The net proceeds of \$26.1 million

(after payment of \$0.2 million in issuance costs plus premium of \$2.5 million and an additional issuer equity contribution of \$0.3 million) were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the bonds. As a result, the bonds are considered to be defeased and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 11 years by \$3.2 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$2.8 million.

In the current and prior years, certain revenue bonds were defeased by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the liability for the defeased bonds, \$53 million at June 30, 2017, and the trust account assets are not included in the financial statements.

Other liabilities consist of the following:

		Balance June 30, 2016		Increase	Decrease		Balance June 30, 2017
TVA conservation program Accrued compensated	\$	8,412,853	\$	469,575	\$ (2,646,367)	\$	6,236,061
absences Customer advances		4,344,437		7,657,682	(7,630,785)		4,371,334
for construction		1,262,889		1,328,520	(675,363)		1,916,046
Other		159,005		72,044	(185,976)		45,073
	\$	14,179,184	\$_	9,527,821	\$ (11,138,491)	\$	12,568,514
		Balance June 30, 2015		Increase	Decrease		Balance June 30, 2016
TVA conservation program Accrued compensated	\$	10,336,682	\$	1,174,926	\$ (3,098,755)	\$	8,412,853
absences		3,922,730		8,454,477	(8,032,770)		4,344,437
Customer advances							
for construction		1,280,962		844,669	(862,742)		1,262,889
Other	_	220,247		96,950	 (158,192)	_	159,005
	\$	15,760,621	\$	10,571,022	\$ (12,152,459)	\$	14,179,184

#### 7. Lease Commitments

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

2018	\$	185,452
2019		174,128
2020	_	123,200
Total operating minimum lease payments	\$	482,780

## 8. Capital Assets

Capital asset activity was as follows:

		Balance June 30, 2016	Increase	Decrease	Balance June 30, 2017
Distribution Plant					
Services and Meters	\$	43,551,858 \$	10,517,986 \$	(354,008) \$	53,715,836
Electric Station Equipment		152,233,167	3,292,850	(862,286)	154,663,731
Poles, Towers and Fixtures		148,060,617	13,309,400	(1,004,435)	160,365,582
Overhead Conductors		136,774,701	9,610,604	(2,447,909)	143,937,396
Line Transformers		96,843,152	3,281,186	(831,121)	99,293,217
Other Accounts	_	195,424,354	6,479,815	(1,448,872)	200,455,297
Total Distribution Plant	\$	772,887,849 \$	46,491,841 \$	(6,948,631) \$	812,431,059
General Plant		86,133,148	6,712,878	(1,745,382)	91,100,644
Total Plant Assets	\$	859,020,997 \$	53,204,719 \$	(8,694,013) \$	903,531,703
Less Accumulated Depreciation	_	(394,693,191)	(32,737,194)	9,465,448	(417,964,937)
Net Plant Assets	\$	464,327,806 \$	20,467,525 \$	771,435 \$	485,566,766
Work In Progress		46,932,330	68,722,382	(52,497,935)	63,156,777
Total Net Plant	\$_	511,260,136 \$	89,189,907 \$	(51,726,500) \$	548,723,543
		Balance			Balance
		June 30, 2015	Increase	Decrease	June 30, 2016
Distribution Plant	•	40.407.000 \$	001011	(450.050)	<b>*</b> 40 ==4 0=0
Services and Meters	\$	43,187,323 \$	824,211 \$	(459,676)	
Electric Station Equipment Poles, Towers and Fixtures		125,338,097 134,306,063	27,775,476	(880,406) (1,142,671)	152,233,167
Overhead Conductors		128,493,727	14,897,225 9,622,259	(1,341,285)	148,060,617 136,774,701
Line Transformers		92,547,983	5,192,889	(897,720)	96,843,152
Other Accounts		186,274,579	9,899,201	(749,426)	195,424,354
Total Distribution Plant	\$	710,147,772 \$	68,211,261 \$	(5,471,184)	
	Ψ	, ,	σο,Ξ,Ξσ. φ	(0,, .0)	Ψ <u>=</u> , σσ. , σ . σ
General Plant		79,748,136	7,631,550	(1,246,538)	86,133,148
Total Plant Assets	\$	789,895,908 \$	75,842,811 \$	(6,717,722)	\$ 859,020,997
Less Accumulated Depreciation	Φ.	(371,336,117)	(30,854,964) 44,987,847 \$	7,497,890	(394,693,191)
Net Plant Assets	\$	418,559,791 \$		,	\$ 464,327,806
Work In Progress		62,237,868	60,847,411	(76,152,949)	46,932,330

## 9. Risk Management

**Total Net Plant** 

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.

480,797,659 \$ 105,835,258 \$

(75,372,781) \$ 511,260,136

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, 2017 and June 30, 2016, the amount of these liabilities was \$908,059 and \$843,930, respectively, resulting from the following changes:

	2017	2016
Balance, beginning of year	\$ 843,930	\$ 815,352
Current year claims and changes in estimates	7,717,808	6,744,214
Claims payments	 (7,653,679)	(6,715,636)
Balance, end of year	\$ 908,059	\$ 843,930

### 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 ("KUB") 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 to accrue benefits under the Plan.

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

	2016	2015
Inactive plan members:		
Terminated vested participants	43	39
Retirees and beneficiaries	605	628
Active plan members	<u>662</u>	<u>692</u>
Total	<u>1,310</u>	<u>1,359</u>

## **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 address the loss 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, 2016:

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 \$4,816,913 and \$5,669,380 for 2015 and 2014, respectively, were made during the Plan sponsor's fiscal years ending June 30, 2017 and 2016, respectively. Of these amounts, \$2,312,118 and \$2,721,302 are attributable to the Electric Division. The fiscal year 2017 contribution was determined as part of the January 1, 2015 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. The actuarial valuation for the Plan year ending December 31, 2016 resulted in an actuarially determined contribution of \$3,756,283 for the fiscal year ending June 30, 2018, based on the Plan's current funding policy. The Electric Division's portion of this contribution is \$1,803,016.

Subsequent to June 30, 2017, the actuarial valuation for the Plan year ending December 31, 2017 was completed. The actuarial valuation resulted in an actuarially determined contribution of \$3,156,661 for the fiscal year ending June 30, 2019, based on the Plan's current funding policy. The Electric Division's portion of this contribution is \$1,515,197. For the Plan year ending December 31, 2017, the Plan's actuarial funded ratio was 105.44 percent.

The actuarial valuations for the Plan years ending December 31, 2016 and 2017, which determine the actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

## **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, 2017 and 2016 will be based on the December 31, 2016 and 2015 measurement date, respectively. The Division's share of the net pension asset at June 30, 2017 is \$59,492 and net pension liability at June 30, 2016 is \$2,419,277.

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

	2016	2015
Total pension liability	\$ 204,390,738 \$	204,502,350
Plan fiduciary net position	 (204,514,679)	(199,462,190)
Plan's net pension (asset) liability	\$ (123,941) \$	5,040,160
		_
Plan fiduciary net position as a percentage of the		
total pension liability	100.06%	97.54%

Changes in Net Pension Liability are as follows:

				Increase		
	-	Total Dana'an		(Decrease)		Mat Dana'an
	ı	otal Pension		an Fiduciary		Net Pension
		Liability	ſ	Net Position	Lia	ability (Asset)
		(a)		(b)		(a) - (b)
Balances at December 31, 2015	\$	204,502,350	\$	199,462,190	\$	5,040,160
Changes for the year:						
Service cost		4,226,985		-		4,226,985
Interest		14,966,559		-		14,966,559
Differences between Expected						
and Actual Experience		(2,233,762)		-		(2,233,762)
Changes of Assumptions		(2,932,883)		-		(2,932,883)
Contributions - employer		-		5,243,146		(5,243,146)
Contributions - rollovers		-		549,781		(549,781)
Contributions - member		-		5,294		(5,294)
Net investment income		-		13,834,111		(13,834,111)
Benefit payments		(14,138,511)		(14,138,511)		-
Administrative expense		-		(441,332)		441,332
Net changes		(111,612)		5,052,489		(5,164,101)
Balances at December 31, 2016	\$	204,390,738	\$	204,514,679	\$	(123,941)

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 27 years remaining as of January
	1, 2014 and 26 years remaining as of January 1, 2015
Discount rate	7.5%
Salary increase	From 2.80% to 5.15% for January 1, 2014 and January 1, 2015,
•	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 December 31, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013.

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, 2016 and 2015 are

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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	2016	2015		
Domestic equity	5.6%	7.2%		
Non-U.S. equity	7.2%	7.4%		
Real estate equity	6.3%	6.5%		
Debt securities	1.6%	3.7%		
Cash and deposits	0.6%	2.6%		

#### Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2016 and 2015. 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, 2016, 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% ncrease (8.5%)
Plan's net pension liability	\$ 16,434,925	\$	(123,941)	\$ (	14,585,088)

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

For the year ended June 30, 2017, KUB recognized pension expense of \$4,674,543 (Division's share \$2,243,781).

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, 2015, this average was 5.00 years. During the measurement year, there was an experience gain of \$2,233,762 with \$446,752 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$1,787,010 (Division's share \$857,765). Unrecognized experience gains from prior periods were \$1,512,267 of which \$378,067 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of \$1,134,200 (Division's share \$544,416).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of \$2,932,884 with \$586,577 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$2,346,307 (Division's share \$1,126,227).

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 \$802,197. \$160,439 of that loss 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 \$7,522,599 of which \$1,482,006 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment losses 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, 2016 of \$6,682,351 (Division's share \$3,207,529). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,408,459 (Division's share \$1,156,060) at June 30, 2017 for employer contributions made between December 31, 2016 and June 30, 2017.

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual				
experience	\$	-	\$	2,921,210
Changes in assumptions		-		2,346,307
Net difference between projected and actual				
earnings on pension plan investments		6,682,351		-
Contributions subsequent to measurement date		2,408,459		-
Total	\$	9,090,810	\$	5,267,517
Division's share	\$	4,363,589	\$	2,528,408

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

Year ended Jur	ne 30:
2018 \$	2,639,508
2019	231,049
2020	1,825,626
2021	(872,890)
Thereafter	_

For the year ended June 30, 2016, KUB recognized pension expense of \$4,665,035 (Division's share \$2,239,217).

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, 2014, this average was 5.00 years. During the measurement year, there were no assumption or benefit changes. There was an experience gain of \$1,890,334 with \$378,067 of that recognized in the current year and in each of the next four years.

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 \$15,382,915. \$3,076,583 of that loss was

recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized investment gains from prior periods were \$6,378,310 of which \$1,594,577 was recognized as a reduction in pension expense in the current year.

Experience gains this year created a deferred inflow of resources of \$1,512,267 (Division's share \$725,888). The combination of unrecognized investment losses this year along with unrecognized net investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2015 of \$7,522,599 (Division's share \$3,610,848). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,834,692 (Division's share \$1,360,652) at June 30, 2016 for employer contributions made between December 31, 2015 and June 30, 2016.

	Deferred Outflows of Resources		 erred Inflows Resources
Differences between expected and actual			
experience	\$	-	\$ 1,512,267
Changes in assumptions		-	-
Net difference between projected and actual			
earnings on pension plan investments		7,522,599	-
Contributions subsequent to measurement date		2,834,692	 -
Total	\$	10,357,291	\$ 1,512,267
Division's share	\$	4,971,500	\$ 725,888

## 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.

There are 689 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There are no inactive employees or retirees currently in the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or reemployed 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.

## Implementation of GASB 73

In fiscal year 2016, KUB adopted 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, 2017 will be based on the December 31, 2016 measurement date.

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

	2016
Total pension liability	\$ 185,077
Deferred outflows	-
Deferred inflows	-
Net impact on Statement of Net Position	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a % of covered payroll	0.42%

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

	Increase	e (Decrease)
	Total Pension Liability	
Balances at December 31, 2015	\$	-
Changes for the year:		
Service cost		-
Interest		-
Changes of Benefits		185,077
Differences between Expected and Actual Experience		-
Changes of Assumptions		-
Contributions – employer		-
Contributions – rollovers		-
Contributions – member		-
Net investment income		-
Benefit payments		-
Net changes		185,077
Balances at December 31, 2016	\$	185,077

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## **Notes to Financial Statements**

## June 30, 2017 and 2016

#### Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation as of January 1, 2016 and projected to December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method Individual entry age
Asset valuation method 5-year smoothed market

Amortization method Level dollar closed period with 25 years remaining as of January

1, 2016

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 percent

The actuarial assumptions used in the January 1, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. The actuarial assumptions for GPB lump sum benefit election and post-disability behavior were adopted effective January 1, 2016 based upon a special experience study completed in early 2016.

#### 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 3.78% at December 31, 2016.

### 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, 2016, calculated using the discount rate of 3.78 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 (2.78 percent) or one percent higher (4.78 percent) than the current rate:

1%	Current	1%
Decrease	Discount	Increase
(2.78%)	Rate (3.78%)	(4.78%)

QEBA's total pension liability \$ 202,189 \$ 185,077 \$ 170,430

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

For the year ended June 30, 2017, KUB recognized pension expense of \$185,077 for the QEBA (Division's share \$88,837). This amount is not expected to be the same as KUB's contribution to the QEBA (\$0), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions.

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, 2015, this average was 5 years. During the measurement year, there were no assumption changes or experience gains or losses. The benefit change of \$0.2 million is due to the implementation of the QEBA. Benefit changes are reflected immediately in the total pension liability of the QEBA.

#### 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 from 3 percent to 6 percent, depending on years of service, whether they contribute or not.

Matching contributions were previously remitted to the KUB Pension Plan (a separate defined benefit plan) in the name of the participant for employees hired prior to January 1, 2011. As of December 9, 2015, these Pension match assets moved from the KUB Pension Plan to the 401(k) Plan. Effective December 9, 2015, all matching contributions are remitted to the 401(k) Plan. The match and nonelective contributions for employees hired on or after January 1, 2011 are paid directly by KUB. KUB funded 401(k) matching contributions and nonelective contributions of \$1,963,541 (Division's share \$942,500) and \$1,739,057 (Division's share \$834,747), respectively, for the years ended June 30, 2017 and 2016.

## 13. Other Post-Employment Benefits (OPEB)

The Governmental Accounting Standards Board (GASB) established standards for the measurement, recognition, and reporting of other post-employment benefits (OPEB). OPEB includes post-employment benefits other than pension, which, for KUB, is presently limited to post-employment health care. GASB Statement No. 45 (Statement No. 45) requires the recognition of the accrued OPEB liability for the respective year, plus the disclosure of the total unfunded liability.

KUB currently provides post-employment health care benefits to 567 former employees and 580 covered dependents. The cost of coverage is shared with retirees and beneficiaries. KUB recognizes its share of the cost of post-employment health care benefits as an expense as claims are paid.

KUB amended its Group Health Plan in 1999, eliminating post-employment health care benefits for all employees hired on or after July 1, 1999. As of June 30, 2017, 334 active employees were eligible for individual and dependent coverage at separation. To qualify, the employee must meet the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and be enrolled in medical coverage on their last day.

In May 2006, the State of Tennessee adopted Tennessee Code Annotated, Title 8, Chapter 50, Part 12 authorizing governmental entities to establish Trusts for the purpose of pre-funding their respective OPEB liabilities.

Although Statement No. 45 does not require pre-funding of the liability, KUB has determined that it is in the long-term economic interest of KUB and its ratepayers to establish a Trust to pre-fund KUB's OPEB liability.

Knoxville Utilities Board Other Post-Employment Benefits Trust (the "Trust") is a single-employer Other Post-Employment Benefits Plan established by the Knoxville Utilities Board (KUB) 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.

KUB makes annual contributions to the Trust at an actuarially determined rate. 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.

An actuarial valuation of KUB's Postretirement Benefit Plan was performed for the Trust as of January 1, 2014 for fiscal year June 30, 2016 and January 1, 2015 for fiscal year June 30, 2017. The following table presents the OPEB cost for the year, the amount contributed to the Trust, and changes in the net OPEB obligation for fiscal year ending June 30:

	2017		2016
a) Net OPEB Obligation/(Asset) at			
beginning of fiscal year	\$ (171,064)		\$ (174,410)
<b>b)</b> Annual Required Contribution (ARC)	620,015		953,221
c) Interest on Net OPEB Obligation/(Asset)	(12,830)		(13,081)
d) Adjustment to ARC	 (16,427)		(16,427)
e) Annual OPEB Cost (b+c-d)	623,612	•	956,567
f) Employer Contributions	620,015		953,221
g) Net OPEB Obligation/(Asset) at			
end of fiscal year (a+e-f)	\$ (167,467)		\$ (171,064)

KUB's annual OPEB cost, the percentage of annual OPEB cost contributed to the Trust, and the net OPEB obligation for fiscal year 2017 and the two preceding years were as follows:

#### **Schedule of Employer Contributions**

Actuarial Valuation Date	Valuation Employer Required		Fiscal Year Actual Contribution	Percentage Contributed	Net OPEB Obligation
1/1/2013	6/30/2015	3,497,372	3,497,372	100.00%	(174,410)
1/1/2014	6/30/2016	953,221	953,221	100.00%	(171,064)
1/1/2015	6/30/2017	620,015	620,015	100.00%	(167,467)

Total contributions to the OPEB Trust for the fiscal year ended June 30, 2017 were \$620,015 (Division's share \$297,607). The contribution to the Trust was consistent with the annual required contribution, as determined by the Postretirement Benefit Plan's actuarial valuation as of January 1, 2015, which was \$620,015 (Division's share \$297,607). As of June 30, 2017, the employer's OPEB obligation has been exceeded by \$167,467 (Division's share \$80,384).

The actuarial valuation for the Plan as of January 1, 2017 has been completed. The valuation determined that the Plan's actuarial accrued liability was \$45,473,686 (Division's share \$21,827,369). The actuarial value of the Plan's assets was \$48,934,219 (Division's share \$23,488,425). As a result, the Plan's unfunded actuarial accrued liability was (\$3,460,533) (Division's share (\$1,661,056)). The Plan's actuarial funded ratio was 108 percent. Due to the future implementation of GASB 75, the

contributions made for fiscal year ending June 30, 2018 and 2019 will be the actuarially determined contribution instead of the annual required contribution and the actuarial cost method used to determine the contributions will change from the projected unit credit cost method to the entry age normal cost method. The actuarially determined contribution for fiscal years ending June 30, 2018 and 2019 will be zero. See Required Supplementary Information for OPEB Schedule of Funding Progress.

The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution and actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The required schedule of funding progress immediately following the notes to the financial statements presents multi-year trend information about whether the actuarial value of Trust assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point.

Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Identification of actuarial methods and significant assumptions used to determine the annual required contribution for the fiscal year ending June 30, 2017:

<ol> <li>Actuarial cost method</li> </ol>
II. Actuarial value of assets

III. Investment return
Projected salary increases
Healthcare cost Trend:
Medicare

Non-Medicare IV. Amortization method

Remaining amortization period

Projected unit credit cost method Smoothed market value with phase-in method using a smoothing period of 5 years 7.5%, based on the expected portfolio return From 2.8% to 5.15%, based on years of service

2015 - 2030+, ranging from 4.5% to 7.27% 2015 - 2030+, ranging from 4.5% to 8.48%

Level dollar closed (30-year)

21 years

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 Division, P.O. Box 59017, Knoxville, TN 37950-9017.

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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, 2017 and 2016 are summarized as follows:

	2017	2016
City of Knoxville		
Amounts billed by the Division for utilities and		
related services	\$ 9,537,099	\$ 8,675,231
Payments by the Division in lieu of property tax	7,472,820	6,979,195
Payments by the Division for services provided	66,843	14,497
Other divisions of KUB		
Amounts billed to other divisions for utilities		
and related services provided	5,989,819	5,255,288
Interdivisional rental expense	-	-
Interdivisional rental income	805,115	769,151
Amounts billed to the Division by other divisions		
for utilities services provided	207,960	197,577

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

	2017	2016
Accounts receivable	\$ 727,226	\$ 541,608

## 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 Funding Progress June 30, 2017 (Unaudited)

## **Other Post-Employment Benefits (OPEB)**

Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
\$ -	\$108,329,141	\$108,329,141	0%	\$31,234,509	346.8%
14,593,487	100,726,738	86,133,251	14%	31,846,091	270.5%
21,275,643	58,475,364	37,199,721	36%	30,069,028	123.7%
40,749,815	64,289,254	23,539,439	63%	28,878,791	81.5%
37,907,357	61,603,466	23,696,109	62%	28,269,123	83.8%
38,571,803	63,341,531	24,769,728	61%	27,566,340	89.9%
43,409,955	46,889,808	3,479,853	93%	26,724,154	13.0%
47,705,478	47,745,640	40,162	100%	25,816,884	0.2%
48,510,796	45,118,624	(3,392,172)	108%	25,243,127	(13.4%)
48,934,219	45,473,686	(3,460,533)	108%	25,197,854	(13.7%)
	Value of Assets (a)  \$ - 14,593,487   21,275,643   40,749,815   37,907,357   38,571,803   43,409,955   47,705,478   48,510,796	Actuarial Value of Liability Assets (AAL) (a) (b)  \$ - \$108,329,141 14,593,487 100,726,738 21,275,643 58,475,364 40,749,815 64,289,254 37,907,357 61,603,466 38,571,803 63,341,531 43,409,955 46,889,808 47,705,478 47,745,640 48,510,796 45,118,624	Actuarial Accrued Accrued Value of Liability (UAAL) (UAAL) (b) (b-a)  \$ - \$108,329,141 \$108,329,141 14,593,487 100,726,738 86,133,251 21,275,643 58,475,364 37,199,721 40,749,815 64,289,254 23,539,439 37,907,357 61,603,466 23,696,109 38,571,803 63,341,531 24,769,728 43,409,955 46,889,808 3,479,853 47,705,478 47,745,640 40,162 48,510,796 45,118,624 (3,392,172)	Actuarial         Actuarial         Actuarial           Value of Assets         Liability         Liability         Funded           Assets         (AAL)         (UAAL)         Ratio           (a)         (b)         (b-a)         (a)/(b)           \$ - \$108,329,141         \$108,329,141         0%           \$14,593,487         100,726,738         86,133,251         14%           \$21,275,643         58,475,364         37,199,721         36%           \$40,749,815         64,289,254         23,539,439         63%           \$37,907,357         61,603,466         23,696,109         62%           \$38,571,803         63,341,531         24,769,728         61%           \$43,409,955         46,889,808         3,479,853         93%           \$47,705,478         47,745,640         40,162         100%           \$48,510,796         45,118,624         (3,392,172)         108%	Actuarial Value of Assets (AAL) (b)         Liability (b-a)         Funded (a)         Covered Payroll (a)           \$ - \$108,329,141         \$108,329,141         0%         \$31,234,509           \$14,593,487         \$100,726,738         86,133,251         14%         31,846,091           \$21,275,643         \$58,475,364         37,199,721         36%         30,069,028           \$40,749,815         64,289,254         23,539,439         63%         28,878,791           \$37,907,357         61,603,466         23,696,109         62%         28,269,123           \$38,571,803         63,341,531         24,769,728         61%         27,566,340           \$43,409,955         46,889,808         3,479,853         93%         26,724,154           \$47,705,478         47,745,640         40,162         100%         25,816,884           \$48,510,796         45,118,624         (3,392,172)         108%         25,243,127

<sup>\*</sup> The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

## Required Supplementary Information – Schedule of Changes in Net Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	*Ye	ar ei	nded December	31	
	2016		2015		2014
Total pension liability					
Service cost	\$ 4,226,985	\$	4,157,062	\$	4,092,808
Interest	14,966,559		14,812,784		14,698,657
Differences between expected and actual experience	(2,233,762)		(1,890,334)		-
Changes of assumptions	(2,932,883)		-		-
Benefit payments, including refunds of member contributions	 (14,138,511)		(15,350,926)		(15,533,167)
Net change in total pension liability	(111,612)		1,728,586		3,258,298
Total pension liability - beginning	 204,502,350		202,773,764		199,515,466
Total pension liability - ending (a)	\$ 204,390,738	\$	204,502,350	\$	202,773,764
Plan fiduciary net position					
Contributions - employer	\$ 5,243,146	\$	5,991,887	\$	5,908,541
Contributions - participants	555,075		487,546		475,854
Net investment income	13,788,263		(95,430)		22,292,369
Other additions	45,848		30,879		29,733
Benefit payments, including refunds of member contributions	(14,044,511)		(15,274,926)		(15,405,167)
Administrative expense	(441,332)		(397,160)		(378,085)
Death benefits	 (94,000)		(76,000)		(128,000)
Net change in plan fiduciary net position**	5,052,489		(9,333,204)		12,795,245
Plan fiduciary net position - beginning**	 199,462,190		208,795,394		196,000,149
Plan fiduciary net position - ending (b)**	\$ 204,514,679	\$	199,462,190	\$	208,795,394
Plan's net pension liability - ending (a) - (b)	\$ (123,941)	\$	5,040,160	\$	(6,021,630)
Plan fiduciary net position as a percentage of the total					
pension liability	100.06%		97.54%		102.97%
Covered payroll	\$ 44,437,747	\$	44,446,743	\$	44,076,351
Plan's net pension liability as a percentage of					
covered payroll	(0.28%)		11.34%		(13.66%)

#### Notes to Schedule:

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

<sup>\*\*</sup> Excludes amounts related to 401(k) matching contributions.

Required Supplementary Information – Schedule of Employer Pension Contributions
June 30, 2017
(Unaudited)

	*Yea	ar en	ded December	31	
	 2016		2015		2014
Actuarially determined contribution Contribution in relation to the actuarially	\$ 5,243,146	\$	5,991,887	\$	5,908,541
determined contribution	 5,243,146		5,991,887		5,908,541
Contribution deficiency	\$ -	\$	-	\$	-
Covered payroll Contributions as a percentage of	\$ 44,437,747	\$	44,446,743	\$	44,076,351
covered payroll	11.80%		13.48%		13.41%

#### Notes to Schedule:

Valuation Dates: January 1, 2013, January 1, 2014 and January 1, 2015

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.

#### 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 closed period with 26 years remaining as of January 1, 2015

Discount rate: 8% at January 1, 2013, 7.5% at January 1, 2014 and January 1, 2015

Salary increases: From 2.58% to 7.92% for January 1, 2013 and from 2.80% to 5.15% for

January 1, 2014 and January 1, 2015, based on years of service

Mortality: Sex distinct RP-2000 Combined Mortality projected to 2018 using Scale AA for the January 1, 2013

valuation. Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA for the

January 1, 2014 and January 1, 2015 valuations.

Inflation: 2.8 percent

<sup>\*</sup> 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.

Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement

Schedule of Changes in Total Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	Year ende	d December 31
Total pension liability		2016
Service cost	\$	-
Interest (includes interest on service cost)		-
Changes of benefit terms		185,077
Differences between expected and actual experience		-
Changes of assumptions		-
Benefit payments, including refunds of member contributions		
Net change in total pension liability		185,077
Total pension liability - beginning		<u>-</u>
Total pension liability - ending	\$	185,077
Covered payroll  Total pension liability as a percentage of	\$44	4,437,747
covered payroll		0.42%

### Notes to Schedule:

<sup>\*</sup> 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, 2017

(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), and OPEB Trust funds. 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 - \$1,500,000 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 \$450,000 per individual participant.

## Knoxville Utilities Board Electric Division Supplemental Information - Schedule of Debt Maturities by Fiscal Year June 30, 2017 (Unaudited)

Schedule 2
Continued on Next Page

	W-20	005	Y-20	009		Z-2010		AA-:	2012	BB-2012		CC-2	2013
FY	Principal	Interest	Principal	Interest	Principal	Interest	Rebate*	Principal	Interest	Principal	Interest	Principal	Interest
17-18	2,015,000	40,300	1,750,000	100,250	1,330,000	1,180,440	413,154	2,670,000	1,223,713	700,000	997,000	475,000	286,600
18-19			1,850,000	37,000	1,355,000	1,128,729	395,055	2,805,000	1,086,838	725,000	972,000	475,000	267,600
19-20					1,390,000	1,070,710	374,749	2,955,000	942,838	750,000	942,500	500,000	248,100
20-21					1,425,000	1,007,355	352,575	3,100,000	791,463	800,000	911,500	515,000	227,800
21-22					1,470,000	939,300	328,756	3,270,000	632,213	825,000	879,000	540,000	206,700
22-23					1,515,000	866,145	303,151	3,415,000	482,163	875,000	849,375	560,000	187,497
23-24					1,560,000	787,710	275,698	3,540,000	360,763	900,000	822,750	575,000	170,475
24-25					1,615,000	703,545	246,241	3,640,000	253,063	950,000	795,000	590,000	153,000
25-26					1,670,000	613,180	214,614	1,105,000	180,506	975,000	766,125	640,000	134,550
26-27					1,725,000	516,395	180,739	1,140,000	144,025	1,025,000	736,125	650,000	115,200
27-28					1,785,000	413,266	144,643	1,180,000	106,325	1,075,000	704,625	670,000	95,400
28-29					1,850,000	303,738	106,308	1,225,000	65,713	1,125,000	671,625	675,000	75,225
29-30					1,925,000	187,156	65,505	1,265,000	22,138	1,175,000	637,125	710,000	54,450
30-31					2,000,000	63,500	22,225			1,225,000	601,125	725,000	32,925
31-32										1,275,000	563,625	735,000	11,023
32-33										1,325,000	524,625		
33-34										1,375,000	484,125		
34-35										1,450,000	441,750		
35-36										1,500,000	397,500		
36-37										1,575,000	351,375		
37-38										1,625,000	303,375		
38-39										1,700,000	253,500		
39-40										1,775,000	201,375		
40-41										1,850,000	147,000		
41-42										1,950,000	90,000		
42-43										2,025,000	30,375		
43-44													
44-45													
45-46													
46-47													
Total	\$ 2,015,000	40,300	\$ 3,600,000	\$ 137,250	\$ 22,615,000	9,781,169	\$ 3,423,413	\$ 31,310,000	\$ 6,291,761	\$ 32,550,000	\$ 15,074,500	\$ 9,035,000	\$ 2,266,545

\*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, 2016 these bonds became subject to a 6.9% 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, 2017 (Unaudited)

Schedule 2
Continued from Previous Page

	DD-2	014	EE-20	015	FF-2	015	GG-2	2016	HHL2	HH-2017 Total		al	Grand Total (P + I)	Grand Total (Less Rebate)
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	(i +i)	(Less Rebate)
	·		·		·		•		•		·			
17-18	725,000	1,332,994	150,000	969,950	700,000	1,443,750	775,000	1,199,562	55,000	734,492	11,345,000	9,509,051	20,854,051	20,440,897
18-19	775,000	1,314,369	150,000	962,450	725,000	1,411,625	825,000	1,159,562	1,890,000	953,455	11,575,000	9,293,628	20,868,628	20,473,573
19-20	800,000	1,298,619	2,075,000	937,950	750,000	1,374,750	850,000	1,117,688	1,990,000	856,455	12,060,000	8,789,610	20,849,610	20,474,861
20-21	825,000	1,282,369	2,135,000	863,825	775,000	1,336,625	900,000	1,073,938	2,090,000	754,455	12,565,000	8,249,330	20,814,330	20,461,755
21-22	875,000	1,256,619	2,235,000	788,100	800,000	1,297,250	950,000	1,027,688	2,195,000	647,330	13,160,000	7,674,200	20,834,200	20,505,444
22-23	900,000	1,221,119	2,300,000	708,250	825,000	1,256,625	1,000,000	978,938	2,305,000	534,830	13,695,000	7,084,942	20,779,942	20,476,791
23-24	950,000	1,184,119	2,415,000	590,375	850,000	1,214,750	1,050,000	927,688	2,400,000	444,205	14,240,000	6,502,835	20,742,835	20,467,137
24-25	975,000	1,145,619	2,555,000	478,900	900,000	1,171,000	1,100,000	884,938	2,460,000	380,455	14,785,000	5,965,520	20,750,520	20,504,279
25-26	1,025,000	1,110,744	2,670,000	387,750	925,000	1,125,375	1,125,000	857,188	2,560,000	285,705	12,695,000	5,461,123	18,156,123	17,941,509
26-27	1,075,000	1,079,244	2,735,000	306,675	950,000	1,078,500	1,150,000	834,438	2,695,000	154,330	13,145,000	4,964,932	18,109,932	17,929,193
27-28	1,125,000	1,046,244	2,850,000	222,900	975,000	1,030,375	1,175,000	811,188	2,805,000	43,478	13,640,000	4,473,801	18,113,801	17,969,158
28-29	1,175,000	1,011,744	2,955,000	135,825	1,025,000	985,500	1,200,000	787,437			11,230,000	4,036,807	15,266,807	15,160,499
29-30	1,225,000	975,744	3,050,000	45,750	1,050,000	944,000	1,200,000	762,687			11,600,000	3,629,050	15,229,050	15,163,545
30-31	1,275,000	938,244			1,100,000	901,000	1,250,000	731,187			7,575,000	3,267,981	10,842,981	10,820,756
31-32	1,325,000	897,919			1,125,000	856,500	1,275,000	693,312			5,735,000	3,022,379	8,757,379	8,757,379
32-33	1,375,000	854,375			1,175,000	810,500	1,325,000	654,312			5,200,000	2,843,812	8,043,812	8,043,812
33-34	1,450,000	808,469			1,225,000	762,500	1,350,000	614,187			5,400,000	2,669,281	8,069,281	8,069,281
34-35	1,500,000	759,594			1,250,000	713,000	1,400,000	572,937			5,600,000	2,487,281	8,087,281	8,087,281
35-36	1,575,000	707,703			1,300,000	662,000	1,450,000	535,625			5,825,000	2,302,828	8,127,828	8,127,828
36-37	1,650,000	652,250			1,350,000	609,000	1,475,000	500,875			6,050,000	2,113,500	8,163,500	8,163,500
37-38	1,725,000	593,188			1,400,000	554,000	1,525,000	459,563			6,275,000	1,910,126	8,185,126	8,185,126
38-39	1,800,000	531,500			1,450,000	497,000	1,550,000	417,313			6,500,000	1,699,313	8,199,313	8,199,313
39-40	1,875,000	462,500			1,500,000	438,000	1,600,000	377,937			6,750,000	1,479,812	8,229,812	8,229,812
40-41	1,950,000	386,000			1,550,000	377,000	1,650,000	335,250			7,000,000	1,245,250	8,245,250	8,245,250
41-42	2,025,000	306,500			1,600,000	314,000	1,675,000	289,531			7,250,000	1,000,031	8,250,031	8,250,031
42-43	2,125,000	223,500			1,675,000	248,500	1,725,000	242,781			7,550,000	745,156	8,295,156	8,295,156
43-44	2,225,000	136,500			1,725,000	180,500	1,775,000	194,656			5,725,000	511,656	6,236,656	6,236,656
44-45	2,300,000	46,000			1,800,000	110,000	1,825,000	142,875			5,925,000	298,875	6,223,875	6,223,875
45-46					1,850,000	37,000	1,900,000	87,000			3,750,000	124,000	3,874,000	3,874,000
46-47							1,950,000	29,250			1,950,000	29,250	1,979,250	1,979,250
Total \$	38,625,000	23,563,789	\$ 28,275,000 \$	7,398,700	34,325,000	23,740,625	\$ 40,000,000	19,301,531	\$ 23,445,000	5,789,190	265,795,000	113,385,360	379,180,360 \$	375,756,947

## Knoxville Utilities Board Electric Division Supplemental Information - Schedule of Current Rates in Force June 30, 2017 (Unaudited)

Rate Class		Base Charge			Number of Customers
Nate Olass		Dasc Onarge			
Residential		Customer Charge:	\$17.60 per month, le	ess Hydro Allocation Credit: \$1.60 per month.	181,268
		Energy Charge:	Summer Period	9.121 cents per kWh per month.	
			Winter Period	9.080 cents per kWh per month.	
			Transition Period	9.080 cents per kWh per month.	
Commercial/	A 1.	If (a) the higher of (i) the	19,507		
Industrial		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:			
		Customer Charge: \$24.00 per delivery point per month.			
		Energy Charge:	Summer Period	10.563 cents per kWh.	
		0, 0	Winter Period	10.522 cents per kWh.	
			Transition Period	10.522 cents per kWh.	
	2.	If (a) the higher of (i) the customer's currently effective contract demand or (ii) its highest billing		2,797	
		demand during the latest 12-month period is greater than 50 kW but not more than 1,000 kW, or			
		•	ling demand is less than		
		during such period exc	eed 15,000 kWh:		
		Customer Charge:	\$65.00 per delivery p	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	\$14.13 per kW.	
			Winter Period	\$13.34 per kW.	
			Transition Period	\$13.34 per kW.	
		Energy Charge:	Summer Period	First 15,000 kWh per month at 12.231 cents per kWh	
				Additional kWh per month at 6.098 cents per kWh.	
			Winter Period	First 15,000 kWh per month at 12.190 cents per kWh	
				Additional kWh per month at 6.098 cents per kWh.	
			Transition Period	First 15,000 kWh per month at 12.190 cents per kWh	
				Additional kWh per month at 6.098 cents per kWh.	

Schedule 3

## Knoxville Utilities Board Electric Division Supplemental Information - Schedule of Current Rates in Force June 30, 2017

(Unaudited) Schedule 3

Rate Class					Number of Customers
	3.	during the latest 12-mo	higher of the customer's currently effective contract demand or (b) its highest billing demand e latest 12-month period is greater than 1,000 kW:		52
		Customer Charge: \$170.00 per delivery point per month.			
		Demand Charge:	Summer Period	First 1,000 kW of billing demand per month, at \$14.71 per kW. Excess over 1,000 kW of billing demand per month, at \$15.34 per kW, plus an additional \$15.34 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 \$13.95 per kW. Excess over 1,000 kW of billing demand per month, at \$14.58 per kW, plus an additional \$14.58 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 \$13.95 per kW. Excess over 1,000 kW of billing demand per month, at \$14.58 per kW, plus an additional \$14.58 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 Winter Period Transition Period	6.639 cents per kWh. 6.639 cents per kWh. 6.639 cents per kWh.	

## Knoxville Utilities Board Electric Division Supplemental Information - Schedule of Current Rates in Force June 30, 2017 (Unaudited)

Rate Class		Base Charge			Number of Customers
Commercial/ Industrial	B.		ninistrative Charge: \$700 per delivery point per month.		
		Summer Period	Onpeak Demand Maximum Demand Excess Demand	\$10.41 per kW per month of the customer's onpeak billing demand, plus \$5.68 per kW per month of the customer's maximum billing demand, plus \$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.	
		Winter Period	Onpeak Demand Maximum Demand Excess Demand	\$9.49 per kW per month of the customer's onpeak billing demand, plus \$5.68 per kW per month of the customer's maximum billing demand plus \$15.17 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 Maximum Demand Excess Demand	\$9.49 per kW per month of the customer's onpeak billing demand, plus \$5.68 per kW per month of the customer's maximum billing demand plus \$15.17 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.	

Schedule 3

## Knoxville Utilities Board Electric Division Supplemental Information - Schedule of Current Rates in Force June 30, 2017 (Unaudited)

(Unaudited)	Schedule 3

Energy Charge:		
Summer Period	Onpeak	9.484 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.095 cents 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	2.652 cents 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	2.325 cents 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	8.393 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.307 cents 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	2.652 cents 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	2.325 cents 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	7.065 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.065 cents 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	2.652 cents 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	2.325 cents 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.
		riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate
	of 1.865 cents per k	Wh 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
Commercial/ Industrial	C.		he firm electric power requirements where a customer's currently effective contract 15,000 kW but not more than 25,000 kW:		1
		Customer Charge: Administrative Charge: Demand Charge:	\$1,500 per delivery po \$700 per delivery poin	·	
		Summer Period	Onpeak Demand Maximum Demand Excess Demand	\$10.41 per kW per month of the customer's onpeak billing demand, plus \$5.56 per kW per month of the customer's maximum billing demand, plus \$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.	
		Winter Period	Onpeak Demand Maximum Demand Excess Demand	\$9.49 per kW per month of the customer's onpeak billing demand, plus \$5.56 per kW per month of the customer's maximum billing demand plus \$15.05 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 Maximum Demand Excess Demand	\$9.49 per kW per month of the customer's onpeak billing demand, plus \$5.56 per kW per month of the customer's maximum billing demand plus \$15.05 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.	

(Unaudited) Schedule 3

Energy Charge:		
Summer Period	Onpeak	9.482 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.093 cents 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	2.650 cents 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	2.323 cents 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	8.391 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.305 cents 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	2.650 cents 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	2.323 cents 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	7.063 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.063 cents 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	2.650 cents 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	2.323 cents 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.
		riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate
	of 1.865 cents per k	Wh 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	
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:				
		Customer Charge: Administrative Charge: Demand Charge:	\$1,500 per delivery poir \$700 per delivery poir			
		Summer Period	Onpeak Demand Maximum Demand Excess Demand	\$10.41 per kW per month of the customer's onpeak billing demand, plus \$5.43 per kW per month of the customer's maximum billing demand, plus \$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.		
		Winter Period	Onpeak Demand Maximum Demand Excess Demand	\$9.49 per kW per month of the customer's onpeak billing demand, plus \$5.43 per kW per month of the customer's maximum billing demand plus \$14.92 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 Maximum Demand Excess Demand	\$9.49 per kW per month of the customer's onpeak billing demand, plus \$5.43 per kW per month of the customer's maximum billing demand plus \$14.92 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.		

(Unaudited)	Schedule 3

Energy Charge:		
Summer Period	Onpeak	9.499 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.110 cents 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	2.558 cents 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	2.340 cents 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	8.408 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.322 cents 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	2.558 cents 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	2.340 cents 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	7.080 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.080 cents 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	2.558 cents 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	2.340 cents 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.
		riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate Wh 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
Commercial/ Industrial	A.	This rate shall apply to the demand is greater than		quirements where a customer's currently effective contract han 5,000 kW:	3
Time of Use		Customer Charge:	\$1,500 per delivery po	pint per month.	
		Administrative Charge: \$700 per delivery point per month.  Demand Charge:			
		Summer Period	Onpeak Demand Maximum Demand Excess Demand	\$10.46 per kW per month of the customer's onpeak billing demand, plus \$5.68 per kW per month of the customer's maximum billing demand, plus \$16.14 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 Maximum Demand Excess Demand	\$9.54 per kW per month of the customer's onpeak billing demand, plus \$5.68 per kW per month of the customer's maximum billing demand plus \$15.22 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 Maximum Demand Excess Demand	\$9.54 per kW per month of the customer's onpeak billing demand, plus \$5.68 per kW per month of the customer's maximum billing demand plus \$15.22 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.	

Schedule 3

(Unaudited) Schedule 3

Energy Charge:		
Summer Period	Onpeak	9.807 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	6.605 cents 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	2.544 cents 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	2.254 cents 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	8.345 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	6.889 cents 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	2.544 cents 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	2.254 cents 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	7.002 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	7.002 cents 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	2.544 cents 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	2.254 cents 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.
		riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate
	of 1.865 cents per k	Wh 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
Seasonal	В.	• • •	he firm electric power requirements where a customer's currently effective contract 5,000 kW but not more than 15,000 kW: \$1,500 per delivery point per month. \$700 per delivery point per month.		-
		Demand Charge:	Summer Period  Winter Period	\$20.66 per kW per month of the customer's billing demand, plus \$20.66 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand. \$17.49 per kW per month of the customer's billing demand, plus \$17.49 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.	
			Transition Period	\$14.34 per kW per month of the customer's billing demand, plus \$14.34 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.	
		Energy Charge:	Summer Period Winter Period Transition Period	<ul><li>5.151 cents per kWh per month.</li><li>4.695 cents per kWh per month.</li><li>4.593 cents per kWh per month.</li></ul>	

Rate Class		Base Charge			Number of Customers
Seasonal	C.	This rate shall apply to the	•	equirements where a customer's currently effective contract e than 25,000 kW:	-
		Customer Charge:	\$1,500 per delivery po	oint per month.	
		Administrative Charge:	\$700 per delivery poir	nt per month.	
		Demand Charge:	Summer Period	\$20.54 per kW per month of the customer's billing demand, plus \$20.54 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.	
			Winter Period	\$17.37 per kW per month of the customer's billing demand, plus \$17.37 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.	
			Transition Period	\$14.22 per kW per month of the customer's billing demand, plus \$14.22 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.	
		Energy Charge:	Summer Period Winter Period Transition Period	5.089 cents per kWh per month. 4.624 cents per kWh per month. 4.525 cents per kWh per month.	

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Rate Class		Base Charge			Number of Customers
Seasonal	D.	This rate shall apply to the demand is greater than 2	•	equirements where a customer's currently effective contract	-
		Customer Charge:	\$1,500 per delivery po	pint per month.	
		Administrative Charge:	\$700 per delivery poin	t per month.	
		Demand Charge:	Summer Period	\$20.41 per kW per month of the customer's billing demand,	
				plus \$20.41 per kW per month for each kW of the amount, if any,	
				by which the customer's billing demand exceeds its contract demand.	
			Winter Period	\$17.24 per kW per month of the customer's billing demand,	
				plus \$17.24 per kW per month for each kW of the amount, if any,	
				by which the customer's billing demand exceeds its contract demand.	
			Transition Period	\$14.09 per kW per month of the customer's billing demand,	
				plus \$14.09 per kW per month for each kW of the amount, if any,	
				by which the customer's billing demand exceeds its contract demand.	
		Energy Charge:	Summer Period	4.869 cents per kWh per month.	
			Winter Period	4.464 cents per kWh per month.	
			Transition Period	4.374 cents per kWh per month.	

Schedule 3

Rate Class		Base Charge			Number of Customers
Manufacturing	В.	demand is greater than conducted at the deliver Classification Code between	Administrative Charge: \$700 per delivery point per month.		
		Summer Period	Onpeak Demand Maximum Demand Excess Demand	\$9.79 per kW per month of the customer's onpeak billing demand, plus \$2.83 per kW per month of the customer's maximum billing demand, plus \$12.62 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 Maximum Demand Excess Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$2.83 per kW per month of the customer's maximum billing demand plus \$11.70 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 Maximum Demand Excess Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$2.83 per kW per month of the customer's maximum billing demand plus \$11.70 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.	

Schedule 3

See accompanying Report of Independent Auditors on Supplemental Information.

Energy Charge:		
Summer Period	Onpeak	7.607 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.217 cents 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	2.377 cents 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	2.134 cents 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	6.516 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.430 cents 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	2.377 cents 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	2.134 cents 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	5.513 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.513 cents 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	2.377 cents 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	2.134 cents 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 Pe	riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate
	of 1.865 cents per k	Wh 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	C.	demand is greater than conducted at the deliver Classification Code bety	e Charge: \$700 per delivery point per month.					
		Summer Period Onpeak Demand \$9.79 per kW per month of Maximum Demand \$2.71 per kW per month of \$12.50 per kW per month fo customer's onpeak billing d or (2) the customer's offper demand, whichever is higher		\$9.79 per kW per month of the customer's onpeak billing demand, plus \$2.71 per kW per month of the customer's maximum billing demand, plus \$12.50 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 Maximum Demand Excess Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$2.71 per kW per month of the customer's maximum billing demand plus \$11.58 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 Maximum Demand Excess Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$2.71 per kW per month of the customer's maximum billing demand plus \$11.58 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.				

Schedule 3

See accompanying Report of Independent Auditors on Supplemental Information.

Energy Charge:		
Summer Period	Onpeak	7.499 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.108 cents 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	2.513 cents 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	2.513 cents 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	6.408 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.322 cents 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	2.513 cents 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	2.513 cents 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	5.405 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.405 cents 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	2.513 cents 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	2.513 cents 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 Pe	riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate
	of 1.865 cents per k	Wh 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	D.	demand is greater than point serving that custor between 20 and 39, inclinations of the control	the firm electric power requirements where (a) a customer's currently effective contract 25,000 kW and (b) the major use of electricity is for activities conducted at the delivery mer which are classified with a 2-digit Standard Industrial Classification Code lusive, or classified with 2002 North American Industry Classification System (NAICS)  CS codes 5182, 522320, and 541214. \$1,500 per delivery point per month. \$700 per delivery point per month.  Onpeak Demand Maximum Demand Secret S			
		Winter Period  Transition Period	Onpeak Demand  Maximum Demand  Excess Demand  Onpeak Demand  Maximum Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$2.58 per kW per month of the customer's maximum billing demand plus \$11.45 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. \$8.87 per kW per month of the customer's onpeak billing demand, plus \$2.58 per kW per month of the customer's maximum billing demand plus		
			Excess Demand	\$11.45 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.		

Schedule 3

See accompanying Report of Independent Auditors on Supplemental Information.

Energy Charge:		
Summer Period	Onpeak	7.305 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	4.914 cents 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	2.374 cents 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	2.318 cents 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	6.214 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.127 cents 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	2.374 cents 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	2.318 cents 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	5.211 cents per kWh per month for all metered onpeak kWh, plus
	Offpeak: Block 1	5.211 cents 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	2.374 cents 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	2.318 cents 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 Pe	eriod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate
	of 1.865 cents per k	Wh 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					
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.  Customer Charge: \$1,500 per delivery point per month.  Administrative Charge: \$700 per delivery point per month.  Demand Charge:					
		Maximum Demand \$4.08 per kW per month of the customer \$13.87 per kW per month for each kW of customer's onpeak billing demand exceed or (2) the customer's offpeak billing demand, whichever is higher.	\$9.79 per kW per month of the customer's onpeak billing demand, plus \$4.08 per kW per month of the customer's maximum billing demand, plus \$13.87 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 Maximum Demand Excess Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$4.08 per kW per month of the customer's maximum billing demand plus \$12.95 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 Maximum Demand Excess Demand	\$8.87 per kW per month of the customer's onpeak billing demand, plus \$4.08 per kW per month of the customer's maximum billing demand plus \$12.95 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.			

Schedule 3

See accompanying Report of Independent Auditors on Supplemental Information.

Energy Charge:						
Summer Period	Onpeak	7.390 cents per kWh per month for all metered onpeak kWh, plus				
	Offpeak: Block 1	5.000 cents 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	2.377 cents 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	2.134 cents 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	6.299 cents per kWh per month for all metered onpeak kWh, plus				
	Offpeak: Block 1	5.213 cents 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	2.377 cents 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	2.134 cents 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	5.297 cents per kWh per month for all metered onpeak kWh, plus				
	Offpeak: Block 1	5.297 cents 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	2.377 cents 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	2.134 cents 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 Pe	riod, Winter Period, and Transition Period, Offpeak Block 1 energy rates less fuel rate				
	of 1.865 cents per k	Wh per month shall be applied to the portion, if any, of the minimum offpeak energy				
	takings amount that	is greater than the metered energy.				

(Unaudited) Schedule 3

Number of Customers

Seasonal

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.

Customer Charge: \$1,500 per delivery point per month.

Administrative Charge: \$700 per delivery point per month.

Demand Charge: Summer Period \$17.44 per kW per month of the customer's billing demand,

plus \$17.44 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.

Winter Period \$14.29 per kW per month of the customer's billing demand,

plus \$14.29 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Transition Period \$11.12 per kW per month of the customer's billing demand,

plus \$11.12 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Energy Charge: Summer Period 4.215 cents per kWh per month.

Winter Period 3.701 cents per kWh per month.

Transition Period 3.581 cents per kWh per month.

Schedule 3

Number of Customers

Seasonal

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.

Customer Charge: \$1,500 per delivery point per month.

Administrative Charge: \$700 per delivery point per month.

Demand Charge: Summer Period \$17.32 per kW per month of the customer's billing demand,

plus \$17.32 per kW per month for each kW of the amount, if any, by which the customer's billing demand exceeds its contract demand.

Winter Period \$14.17 per kW per month of the customer's billing demand,

plus \$14.17 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Transition Period \$11.00 per kW per month of the customer's billing demand,

plus \$11.00 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Energy Charge: Summer Period 4.128 cents per kWh per month.

Winter Period 3.646 cents per kWh per month.

Transition Period 3.530 cents per kWh per month.

(Unaudited) Schedule 3

Number	of
Custome	re

### Manufacturing Seasonal

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.

Customer Charge: \$1,500 per delivery point per month.

Administrative Charge: \$700 per delivery point per month.

Demand Charge: Summer Period \$20.41 per kW per month of the customer's billing demand,

plus \$20.41 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Winter Period \$17.24 per kW per month of the customer's billing demand,

plus \$17.24 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Transition Period \$14.09 per kW per month of the customer's billing demand,

plus \$14.09 per kW per month for each kW of the amount, if any,

by which the customer's billing demand exceeds its contract demand.

Energy Charge: Summer Period 3.361 cents per kWh per month.

Winter Period 2.974 cents per kWh per month. Transition Period 2.880 cents per kWh per month.

(Unaudited)	Schedule 3

Rate Class	Base Charge			Number of Customers
Outdoor Lighting				
Part A	- Charges for Street and	l Park Lighting Systems	, Traffic Signal Systems, and Athletic Field Lighting Installations	56
	Energy Charge:	Summer Period	7.697 cents per kWh per month.	
		Winter Period	7.697 cents per kWh per month.	
		Transition Period	7.697 cents per kWh per month.	
	Facility Charge:	of the facilities devote installed cost shall be in the facilities are mabe billed to the custon system's expense, or another municipality or effect properly the re-	arge shall be 14.83 percent of the installed cost to KUB's electric system d to street and park lighting service specified in this Part A. Such recomputed on July 1 of each year, or more often if substantial changes de. Each month, one-twelfth of the then total annual facility charge shall her. If any part of the facilities has not been provided at the electric if the installed cost of any portion thereof is reflected on the books of r agency or department, the annual facility charge shall be adjusted to maining cost to be borne by the electric system.	
	Customer Charge:	\$2.50.		

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#### Part B - Charges for Outdoor Lighting for Individual Customers

**Charges Per Fixture Per Month** 

a.	Type of Fixture (Wa		(Lumens)	Rated kWh	Facility Charge	Total Lamp Charge	
	Mercury Vapor or Incandescent*	175	7,650	70	\$ 4.64	\$	10.03
		400	19,100	155	6.47		18.40
		1000**	47,500	378	10.36		39.45
	High Pressure Sodium	100	8,550	42	4.64		7.87
		250	23,000	105	5.50		13.58
		400	45,000	165	6.47		19.17
		1000**	126,000	385	10.36		39.99
	Decorative	100	8,550	42	5.28		8.51

<sup>\*</sup> Mercury Vapor and Incandescent fixtures not offered for new service.

**b.** Energy Charge: For each lamp size under **a.** above, 7.697 cents per rated kWh per month.

Additional pole charge: \$3.00 per pole.

See accompanying Report of Independent Auditors on Supplemental Information.

<sup>\*\* 1,000</sup> watt fixtures not offered for new service.

**Base Charge** 

(Unaudited) Schedule 3

Number	of
Custome	rc

#### LED Pilot Program

**Rate Class** 

Service under the LED Pilot Program shall only be available for select outdoor (security) lighting facilities of governmental entities located in the KUB electric system service territory. Participation in the LED Pilot Program shall be on a voluntary basis.

#### **Pilot Program Charges - No Capital Contribution**

The following charges are applicable to those customers participating in the LED Pilot Program, for whom the installed cost of facilities for providing service under the program has been borne by the electric system. The following charges are per LED fixture per month.

LED Fixture Type	acility harge	Rated kWh	Energy Charge Per kWh	Total		
LED - 150WE - Rectangular Head LED - 150WE - Cobra Head	\$ 12.43 11.34	38 38	\$ 0.07697 0.07697	\$	15.35 14.26	
LED - 250WE - Rectangular Head LED - 250WE - Cobra Head	\$ 14.95 13.62	57 57	\$ 0.07697 0.07697	\$	19.34 18.01	

#### **Pilot Program Charges - Capital Contribution**

The following charges are applicable to those customers participating in the LED Pilot Program, for whom the installed cost of facilities providing service under the program has been borne by the customer. The following charges are per LED fixture per month.

LED Fixture Type	icility narge	Rated kWh	(	Charge Per kWh	Total harge
LED - 150WE - Rectangular Head LED - 150WE - Cobra Head	\$ 5.36 5.23	38 38	\$	0.07697 0.07697	\$ 8.28 8.15
LED - 250WE - Rectangular Head LED - 250WE - Cobra Head	\$ 6.23 6.06	57 57	\$	0.07697 0.07697	\$ 10.62 10.45

Additional pole charge: \$3.00 per pole.

See accompanying Report of Independent Auditors on Supplemental Information.



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Report of Independent Auditors 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

#### **Report on the Financial Statements**

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, 2017, 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 18, 2017.

#### **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 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*.

#### **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 18, 2017



### **Gas Division**

### Financial Statements and Supplemental Information June 30, 2017 and 2016

#### **KUB Board of Commissioners**

Celeste Herbert - Chair

John Worden - Vice Chair

Dr. Jerry W. Askew

Kathy Hamilton

Sara Hedstrom Pinnell

Tyvi Small

Nikitia Thompson

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Mintha Roach

President and Chief Executive Officer

Mark Walker

Senior Vice President and Chief Financial Officer

**Susan Edwards** 

Senior Vice President and Chief Administrative Officer

**Gabe Bolas** 

Senior Vice President and Chief Engineer

**Eddie Black** 

Senior Vice President

**Derwin Hagood** 

Senior Vice President of Operations

Mike Bolin

Vice President

**Julie Childers** 

Vice President

John Gresham

Vice President

**Dawn Mosteit** 

Vice President

Paul Randolph

Vice President

### **Knoxville Utilities Board Gas Division**

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June 30, 2017 and 2016

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#### Independent Auditors' 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, 2017 and 2016, 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

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, 2017 and 2016, and the changes in financial position and cash flows thereof 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 57 through 60 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, 2017 and 2016, the changes in its financial position, or, where applicable, 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 18, 2017, 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 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 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 18, 2017

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, 2017 and 2016, 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, 2017 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 101,023 customers, and its service territory covers 284 square miles. KUB maintains 2,336 miles of service mains to provide 10.9 million dekatherms of natural gas to its customers annually.

KUB's natural gas system service territory experienced an extremely mild winter. As a result, billed natural gas sales were 2.5 percent less than the previous fiscal year. Gas Division margin (operating revenue less purchased gas cost) was \$0.9 million higher in fiscal year 2017. The increase is the result of an increase in billed sales volumes for industrial customers and additional revenue from the natural gas system rate increase effective October 2016 offset by the decline in billed sales volumes for residential and commercial customers due to the mild winter.

The natural gas system's peak demand occurred February 2015 at 136,356 dekatherms. The previous natural gas system peak was 133,366 dekatherms in January 2014.

The typical residential gas customer's average monthly gas bill was \$56.70 for the twelve months ending June 30, 2017. The monthly bill increased \$4.19 compared to last fiscal year, the result of the October 2016 gas rate increase and the flow-through of higher purchased gas commodity prices.

The natural gas system has added approximately 3,093 customers over the past three years representing annual growth of one percent. In fiscal year 2017, 1,215 customers were added.

KUB's Compressed Natural Gas (CNG) Public Fueling Station opened in fiscal year 2017 to promote clean burning fuel in the Knoxville area. It joins 13 other CNG stations in Tennessee cities. KUB's CNG fleet has planned growth of 100 vehicles by 2020.

The Knoxville News Sentinel recognized KUB as one of Knoxville's Top Workplaces in 2017. KUB was among 30 outstanding companies selected for the award. Companies were measured on several qualities,

such as company leadership, career opportunities, workplace flexibility, compensation and benefits, and the impact company policies have on innovation, productivity and morale of its workforce.

#### **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 2013, the Board extended the funding approach for Century II to include the natural gas system. The Board formally endorsed by resolution a ten-year funding plan for the Gas Division, which includes a combination of rate increases and debt issues to fully fund the natural gas system's Century II program.

In April 2014, KUB management provided the Board an updated assessment of the overall condition of each utility system, including a recommendation for annual rate increases for each division for the next three fiscal years.

In June 2014, the Board approved three annual rate increases for the Gas Division. The October 2014, October 2015, and October 2016 rate increases each provided an additional \$1.8 million in annual revenue to help fund infrastructure replacement and maintenance.

The South Loop project that included a new 8-mile transmission main in the southwest portion of KUB's service territory was completed in October 2015. The South Loop provides additional system capacity to meet the increased natural gas demands of the University of Tennessee, in addition to other potential growth opportunities in that portion of KUB's gas service territory.

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 \$126.5 million in this effort, of which the Gas Division's share is \$13.6 million. The deployment is funded in large part by debt issues and incremental rate increases. As of June 30, 2017, KUB completed its first-year deployment of advanced meters, including the installation of network communication devices on 15 percent of KUB's natural gas meters at a total cost of \$2.3 million.

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 gas rate increases are effective October 2017, October 2018, and October 2019 and are expected to provide an additional \$2.2 million, \$2.3 million, and \$2.3 million in annual revenue, respectively, to help fund the Gas Division.

KUB replaced 5.4 miles of steel gas mains during fiscal year 2017, which exceeded the 5-mile target.

#### **Financial Highlights**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

The Division's net position increased \$6.1 million in fiscal year 2017. This increase was \$1.5 million less than the prior year's change in net position.

Operating revenue increased \$3.4 million or 3.9 percent. The increase is attributable to higher billed volumes for industrial natural gas system customers and higher wholesale gas costs, which were directly flowed through to KUB's natural gas rates through the Purchased Gas Adjustment mechanism. Purchased gas expense was \$2.5 million or 6.1 percent higher due to higher natural gas commodity prices offset by reduced customer demand from the mild winter. Margin on gas sales (operating revenue less purchased gas expense) increased \$0.9 million or 2 percent, reflecting the decrease in gas sales volumes partially offset by additional revenue from the rate increases.

Operating expenses (excluding purchased gas expense) increased \$2.2 million or 6.2 percent. Operating and maintenance (O&M) expenses were \$1.1 million more than the prior fiscal year. Depreciation expense increased \$0.8 million and taxes and tax equivalents were \$0.3 million higher than the prior year.

Wholesale purchased gas expense represented 49 percent of natural gas sales revenue for the fiscal year ended June 30, 2017.

Interest income increased \$0.1 million compared to the prior fiscal year. Interest expense increased \$0.2 million, the result of the issuance of new bonds during the fiscal year.

Total plant assets (net) increased \$7.8 million or 2.9 percent reflecting capital investment associated with the replacement of key gas system assets and other major system projects.

During fiscal year 2017, KUB sold \$12 million in gas system revenue bonds for the purpose of funding gas system capital improvements and also sold \$8.1 million in gas system revenue refunding bonds to refinance existing gas system bonds at lower interest rates. The refunding produced total debt service savings of \$1.2 million over the life of the bonds (\$1 million on a net present value basis).

Long-term debt represented 34.9 percent of the Division's capital structure as of June 30, 2017, as compared to 34.5 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 3.00. Maximum debt service coverage was 3.01.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's net position increased \$7.6 million in fiscal year 2016. This increase was \$4.5 million less than the prior year's change in net position. A restatement to the fiscal year 2014's net position based on a change in method of accounting for the pension reduced the total net position by \$0.1 million during fiscal year 2015.

Operating revenue decreased \$25.7 million or 22.5 percent. The decrease is attributable to a decrease of 10.2 percent in billed sales volumes and lower wholesale gas costs, which were directly flowed through to KUB's natural gas rates through the Purchased Gas Adjustment mechanism. Purchased gas expense was \$22.5 million or 35.3 percent lower due to reduced customer demand from the mild winter and lower natural gas commodity prices. Margin on gas sales (operating revenue less purchased gas expense) decreased

\$3.2 million or 6.4 percent, reflecting the decrease in gas sales volumes partially offset by additional revenue from the rate increases.

Operating expenses (excluding purchased gas expense) increased \$1.8 million or 5.4 percent. Taxes and tax equivalents increased \$0.7 million and depreciation expense was \$0.6 million higher than the prior year. Operating and maintenance (O&M) expenses were \$0.5 million more than the prior fiscal year.

Wholesale purchased gas expense represented 47 percent of natural gas sales revenue for the fiscal year ended June 30, 2016.

Interest income was consistent with the prior fiscal year. Interest expense decreased \$0.5 million, the result of lower interest costs from the refinancing of certain outstanding bonds in April 2015.

Total plant assets (net) increased \$15.5 million or 6.2 percent reflecting capital investment associated with the replacement of key gas system assets and other major system projects, including the South Loop.

Long-term debt represented 34.5 percent of the Division's capital structure as of June 30, 2016, as compared to 36.6 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 3.13. Maximum debt service coverage was 3.16.

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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)		2017		2016		2015
Current, restricted and other assets	\$	55,326	\$	47,676	\$	63,520
Capital assets, net		271,285		263,531		248,032
Deferred outflows of resources	_	2,646		3,005	_	1,925
Total assets and deferred outflows of resources	_	329,257	_	314,212	-	313,477
Current and other liabilities		22,193		19,875		20,070
Long-term debt outstanding		106,162		100,164		105,919
Deferred inflows of resources		895	_	257	_	1,148
Total liabilities and deferred inflows of resources		129,250	_	120,296	_	127,137
Net position						
Net investment in capital assets		160,725		159,696		138,973
Restricted		1,875		1,820		1,801
Unrestricted		37,407	_	32,400	_	45,566
Total net position	\$ _	200,007	\$ _	193,916	\$	186,340

#### **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 2017 Compared to Fiscal Year 2016

Current, restricted and other assets increased \$7.7 million or 16 percent. General fund cash (consisting of cash and cash equivalents, short-term investments and long-term investments) increased \$2.4 million primarily to fund capital expenditures. Inventories increased \$1.2 million due to Grid Modernization materials and accounts receivable increased \$1.1 million compared to June 2016. Operating contingency reserves increased \$0.9 million.

KUB under recovered its wholesale gas costs by \$3.7 million in fiscal year 2017 compared to a \$2.2 million under recovery in fiscal year 2016. The under recovery of costs will be collected from customers next fiscal year through adjustments to rates via the Purchased Gas Adjustment. Gas storage decreased \$0.1 million, reflecting higher commodity prices for natural gas for 6.3 percent lower storage volumes compared to the prior fiscal year.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Current, restricted and other assets decreased \$15.8 million or 24.9 percent. General fund cash and investments decreased \$15.2 million primarily to fund capital expenditures. Operating contingency reserves increased \$1.2 million. Accounts receivable decreased \$1.5 million compared to June 2015.

KUB under recovered its wholesale gas costs by \$2.2 million in fiscal year 2016 compared to a \$1.1 million over recovery in fiscal year 2015. The under recovery of costs will be collected from customers next fiscal year through adjustments to rates via the Purchased Gas Adjustment. Gas storage decreased \$1.4 million, reflecting lower commodity prices for natural gas for slightly higher storage volumes compared to the prior fiscal year.

# **Capital Assets**

# Fiscal Year 2017 Compared to Fiscal Year 2016

Capital assets increased \$7.8 million or 2.9 percent. Major capital expenditures during the year included \$7.3 million for the construction of mains and service extensions, \$3.1 million for gas main replacement, \$2.3 million for the replacement and relocation of gas system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, \$1.5 million for tools and equipment, and \$1.5 million for trucks and equipment. The Gas Division retired \$5.8 million of natural gas system assets during the fiscal year.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Capital assets increased \$15.5 million or 6.2 percent. Major capital expenditures during the year included \$15.1 million for the construction of mains and service extensions, \$3.9 million for gas main replacement, \$2.5 million for the replacement and relocation of gas system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, and \$1.4 million for upgrades to various information systems.

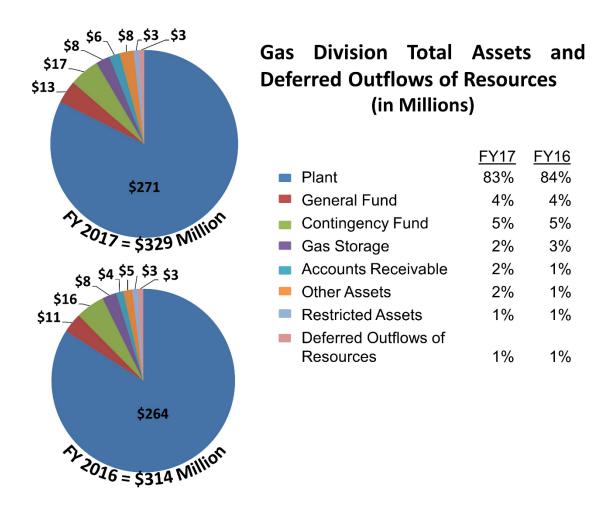
### **Deferred Outflows of Resources**

### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred outflows of resources decreased \$0.4 million compared to the prior fiscal year. This decrease is attributable to a \$0.2 million decrease in pension outflow and a \$0.1 million decrease in unamortized bond refunding costs.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred outflows of resources increased \$1.1 million compared to the prior fiscal year. This increase is attributable to a \$1.2 million increase in pension outflow and a \$0.1 million decrease in unamortized bond refunding costs.



### **Current and Other Liabilities**

# Fiscal Year 2017 Compared to Fiscal Year 2016

Current and other liabilities increased \$2.3 million or 11.7 percent. Accounts payable increased \$2 million compared to the prior fiscal year. Customer advances for construction increased \$0.4 million and the current portion of revenue bonds increased \$0.3 million. The increases were offset by a decrease of \$0.8 million in the actuarially determined net pension obligation.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Current and other liabilities decreased \$0.2 million or 1 percent. Accounts payable decreased \$0.4 million compared to the prior fiscal year. This was offset by an actuarially determined net pension obligation of \$0.9 million recognized during fiscal year 2016.

KUB over recovered \$1.1 million in wholesale gas costs from its customers in fiscal year 2015 as compared to a \$2.2 million under recovery in fiscal year 2016. The over recovery of costs was flowed back to KUB's gas customers during fiscal year 2016 through adjustments to rates via the Purchased Gas Adjustment.

# **Long-Term Debt**

### Fiscal Year 2017 Compared to Fiscal Year 2016

Long-term debt was \$6 million or 6 percent higher than the prior year. \$12 million in new revenue bonds, issued in July 2016, added to KUB's outstanding debt. In March 2017, revenue refunding bonds of \$8.1 million were issued to refinance bonds sold in 2005. The additional issuances offset by the defeased bonds and scheduled debt repayments accounted for the change in long-term debt.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Long-term debt was \$5.8 million or 5.4 percent lower than the prior year, primarily due to \$5.5 million of long-term bond debt that shifted to current liabilities as payable within the next year.

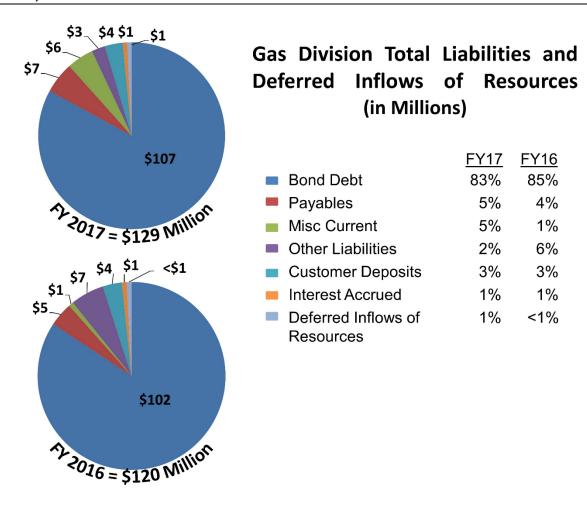
### **Deferred Inflows of Resources**

# Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred inflows of resources increased \$0.6 million compared to the prior fiscal year due to differences in pension inflows.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred inflows of resources decreased \$0.9 million compared to the prior fiscal year due to differences in pension inflows.



### **Net Position**

### Fiscal Year 2017 Compared to Fiscal Year 2016

Unrestricted net position increased \$5 million, primarily due to a \$7.6 million increase in current and other assets compared to last fiscal year, which includes an increase of \$2.4 million in general fund cash. Investment in capital assets, net of debt, increased \$1 million, primarily from an increase in net plant in service of \$7.8 million offset by an increase of \$6.3 million in the current portion of revenue bonds and total long-term debt. Restricted net position was less than \$0.1 million higher than the prior fiscal year, based on increases in debt service.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Investment in capital assets, net of debt, increased \$20.7 million or 14.9 percent, primarily from an increase in net plant in service of \$15.5 million and a decrease of \$5.8 million in long-term debt. Restricted net position was consistent with the prior fiscal year. Unrestricted net position decreased \$13.2 million primarily due to a \$15.2 million decrease in general fund cash compared to June of the prior year.

# 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)		2017		2016		2015
Operating revenues	\$	91,868	\$	88,441	\$	114,169
Less: Purchased gas expense	_	43,714	_	41,212		63,735
Margin from sales		48,154		47,229		50,434
Operating expenses						
Distribution		9,139		8,305		7,922
Customer service		2,718		2,676		2,688
Administrative and general		6,232		5,984		5,843
Depreciation		12,262		11,481		10,895
Taxes and tax equivalents	_	7,692		7,391		6,657
Total operating expenses		38,043		35,837		34,005
Operating income		10,111		11,392		16,429
Interest income		291		183		159
Interest expense		(4,190)		(4,033)		(4,537)
Other income/(expense)	_	(121)		34	_	105
Change in net position before capital contributions	3 _	6,091		7,576	_	12,156
Capital contributions	_				_	4
Change in net position	\$	6,091	\$	7,576	\$_	12,160

# 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 2017 Compared to Fiscal Year 2016

The Division's net position increased \$6.1 million. This was \$1.5 million lower than the prior year's change in net position, reflecting the mild winter and increased operating expenses.

# Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's net position increased \$7.6 million. This increase was \$4.5 million lower than the prior year's change in net position. A restatement to fiscal year 2014's net position based on a change in method of accounting for the pension reduced the total net position by \$0.1 million during fiscal year 2015. Lower earnings were primarily attributable to decreased margin on gas sales.

# **Margin from Sales**

# Fiscal Year 2017 Compared to Fiscal Year 2016

Margin on gas sales (operating revenue less purchased gas expense) increased \$0.9 million or 2 percent due to revenue from the rate increase effective October 2016 offset by a 2.5 percent decrease in billed sales volumes.

Operating revenue increased \$3.4 million or 3.9 percent for the fiscal year ending June 30, 2017. The gas system service territory experienced an extremely mild winter. Billed sales were down 2.5 percent due to the warm winter. The overall increase in operating revenue reflected the flow-through of higher purchased gas commodity prices, increased industrial sales, and the additional revenue from the 2016 rate increase.

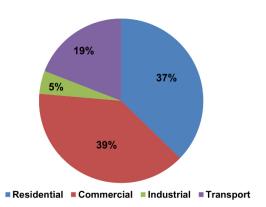
Purchased gas expense increased \$2.5 million or 6.1 percent, due to higher commodity prices for natural gas during the fiscal year. KUB purchased 8 percent less gas from its suppliers during the fiscal year to meet customer demand and maintain gas storage levels. The net result was a 9.5 percent decrease in total volumes delivered to KUB's gas distribution system. The Division's weighted average cost of gas purchased for fiscal year 2017 was \$3.07 per dekatherm, as compared to \$2.49 per dekatherm last year.

FY 2017 Total Gas Customers = 101,023
<1%
9%
91%

■ Residential ■ Commercial ■ Industrial\* ■ Transport\*

\*Industrial and Transport customers represent less than 1% of the total.

FY 2017 Gas Sales = 11 million Dekatherms



Residential customers, whose natural gas is primarily used as a heat source during winter months, accounted for 91 percent of customers billed and 37 percent of total volumes sold during the year.

Residential sales volumes declined 6.2 percent, transport sales volumes declined 3.3 percent and commercial sales volumes declined 1.1 percent. Consumption declines due to a mild winter were offset by a 27.3 percent increase in industrial sales volumes compared to the prior fiscal year.

KUB's ten largest gas customers accounted for 29 percent of KUB's billed gas volumes. Those ten customers represent six industrial and four commercial customers, including one governmental customer.

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.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Margin on gas sales (operating revenue less purchased gas expense) decreased \$3.2 million or 6.4 percent due to a 10.2 percent decrease in billed sales volumes offset by revenue from rate increases that were effective October 2014 and October 2015.

Operating revenue decreased \$25.7 million or 22.5 percent for the fiscal year ending June 30, 2016. The gas system service territory experienced the second mildest winter in the last forty years. Billed sales were down 10.2 percent due to the warmer winter, and purchased gas commodity prices flowed through to customer rates were lower. However, additional revenue was generated from the rate increases.

Purchased gas expense decreased \$22.5 million or 35.3 percent, due to lower customer demand and reduced commodity prices for natural gas during the fiscal year. KUB purchased 15.5 percent less gas from its suppliers during the fiscal year to meet customer demand and maintain gas storage levels. The net result was a 14.6 percent decrease in total volumes delivered to KUB's gas distribution system. The Division's weighted average cost of gas purchased for fiscal year 2016 was \$2.49 per dekatherm, as compared to \$3.62 per dekatherm last year.

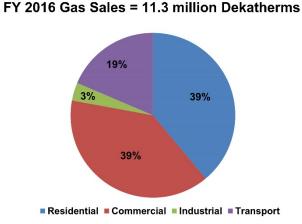
FY 2016 Total Gas Customers = 99,808

<1%

91%

Residential Commercial Industrial\* Transport\*

\*Industrial and Transport customers represent less than 1% of the total.



Residential customers, whose natural gas is primarily used as a heat source during winter months, accounted for 91 percent of customers billed and 39 percent of total volumes sold during the year.

Commercial and industrial sales volumes (including transportation customers) increased 3.3 percent. KUB's ten largest gas customers accounted for 28.1 percent of KUB's billed gas volumes. Those ten customers represent five industrial and five commercial customers, including one governmental customer.

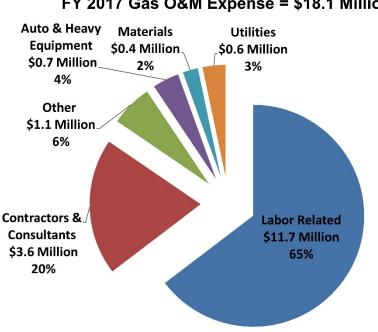
KUB also has 18 transport customers who purchase gas directly from a supplier other than KUB. KUB provides transportation service on its gas distribution system to those customers.

# **Operating Expenses**

# Fiscal Year 2017 Compared to Fiscal Year 2016

Operating expenses (excluding purchased gas expense) increased \$2.2 million or 6.2 percent compared to fiscal year 2016. 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 \$0.8 million higher than the prior fiscal year due to an increase in outside contractors and an increase in labor related expenses.
- Customer service expenses were consistent with the prior fiscal year.
- Administrative and general expenses increased \$0.2 million or 4.1 percent, primarily due to labor related expenses.



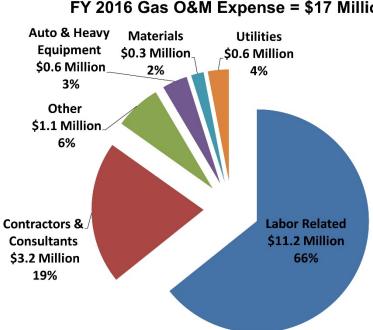
# FY 2017 Gas O&M Expense = \$18.1 Million

- Depreciation expense was \$0.8 million higher than the prior year, primarily due to increased depreciation on mains due to Century II replacement programs, upgrades to various information systems and the completion of the South Loop project.
- Taxes and tax equivalents were \$0.3 million higher than the prior fiscal year due to increased plant in service levels.

# Fiscal Year 2016 Compared to Fiscal Year 2015

Operating expenses (excluding purchased gas expense) increased \$1.8 million or 5.4 percent compared to fiscal year 2015. 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.

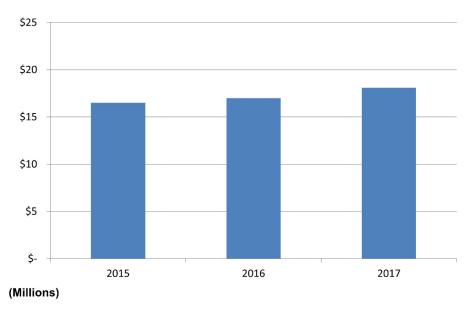
- Distribution system O&M expenses were \$0.4 million higher than the prior fiscal year due to an increase in labor related expenses.
- Customer service expenses were consistent with the prior fiscal year.
- Administrative and general expenses increased \$0.1 million or 2.4 percent.



# FY 2016 Gas O&M Expense = \$17 Million

- Depreciation expense was \$0.6 million higher than the prior year, primarily due to increased depreciation on mains due to Century II replacement programs and the completion of the South Loop project.
- Taxes and tax equivalents were \$0.7 million higher than the prior fiscal year due to increased plant in service levels.

# **Gas Division Operation & Maintenance Expense**



# Other Income and Expense

# Fiscal Year 2017 Compared to Fiscal Year 2016

Interest income was \$0.1 million higher than the prior fiscal year.

Interest expense increased \$0.2 million compared with the prior year, reflecting interest from new bonds issued during the fiscal year.

Other income (net) was down \$0.2 million from the prior fiscal year.

### Fiscal Year 2016 Compared to Fiscal Year 2015

Contributions in aid of construction increased \$6.6 million compared to the prior fiscal year. This was primarily due to a \$4 million contribution from the University of Tennessee, representing the remaining portion of the University's contribution for the South Loop project.

Interest income was consistent with the prior fiscal year.

Interest expense decreased \$0.5 million compared with the prior year, reflecting interest savings from the bond refunding in April 2015.

Other income (net) was down \$0.1 million from the prior fiscal year.

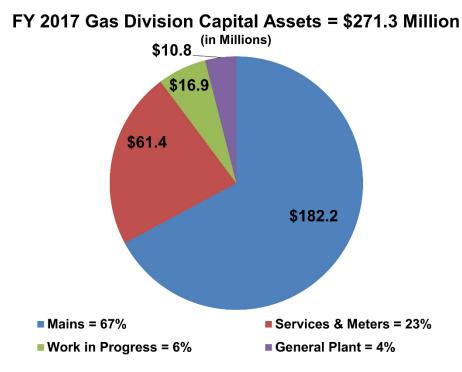
# **Capital Assets**

# Capital Assets As of June 30 (Net of Depreciation)

(in thousands of dollars)		2017	2017			2015		
Distribution Plant								
Mains	\$	182,159		176,253		149,720		
Services and Meters/Regulator	s	61,427		57,053		52,580		
Other Accounts		821		845		766		
Total Distribution Plant		244,407	\$	234,151	\$	203,066		
Total General Plant	\$_	9,969		8,549	_	7,688		
Total Plant Assets		254,376	\$	242,700	\$	210,754		
Work In Progress	_	16,909	_	20,831		37,278		
Total Net Plant	\$	271,285	\$	263,531	\$	248,032		

# Fiscal Year 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$271.3 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 \$7.8 million or 2.9 percent over the end of last fiscal year.



Major capital asset expenditures during the year were as follows:

- \$7.3 million for construction of mains and service extensions
- \$3.1 million for main replacement
- \$2.3 million for replacement and relocation of gas system assets to accommodate TDOT highway improvement projects
- \$1.5 million for tools and equipment
- \$1.5 million for trucks and equipment

# Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$263.5 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 \$15.5 million or 6.2 percent over the end of last fiscal year.

Services & Meters = 22%

Work in Progress = 8%

Work in Progress = 8%

Work in Progress = 8%

Major capital asset expenditures during the year were as follows:

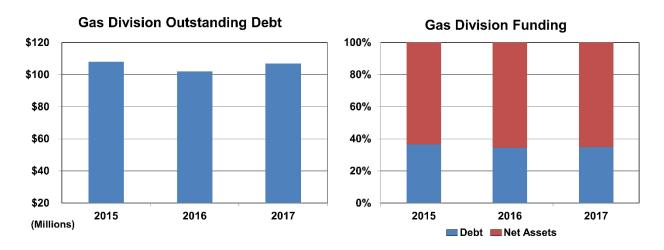
- \$15.1 million for installation of new main and service extensions
- \$7.6 million for the South Loop project
- \$3.9 million for main replacement
- \$2.5 million for replacement and relocation of gas system assets to accommodate TDOT highway improvement projects
- \$1.4 million for upgrades to various information systems

### **Debt Administration**

As of June 30, 2017, the Gas Division had \$107.2 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 34.9 percent in 2017, 34.5 percent in 2016, and 36.6 percent at the end of fiscal year 2015. 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)		2017	2016	2015
Revenue bonds	\$_	107,220	\$ 102,125	\$ 107,545
Total outstanding debt	\$_	107,220	\$ 102,125	\$ 107,545



The Division will pay \$64.8 million in principal payments over the next ten years, representing 60.4 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 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$107.2 million in outstanding debt (including current portions of revenue bonds), compared to \$102.1 million last year, representing an increase of \$5.1 million or 5 percent. The increase is attributable to the net effect of new revenue and refunding bond issuances. The Division's weighted average cost of debt as of June 30, 2017, was 3.88 percent (3.69 percent including the impact of Build America Bonds rebates).

KUB sold \$12 million in gas system revenue bonds in July 2016 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 2.78 percent.

KUB sold \$8.1 million in gas system revenue refunding bonds in March 2017 for the purpose of refinancing existing gas system bonds at lower interest rates. KUB will realize a total debt service savings of \$1.2 million over the life of the bonds (\$1 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.09 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2017, the Division's revenue bonds were rated AA by Standard & Poor's and Aa2 by Moody's Investors Service.

# Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$102.1 million in outstanding debt (including current portions of revenue bonds), compared to \$107.5 million last year, representing a decrease of \$5.4 million or 5 percent. The decrease is attributable to the scheduled repayment of bond debt. The Division's weighted average cost of debt as of June 30, 2016, was 3.9 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2016, 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 1,100 new gas customers in fiscal year 2018.

In June 2017, the KUB Board adopted the next three years of rate increases for all four Divisions to help fund the ongoing Century II infrastructure programs for each system. The approved gas rate increases are effective October 2017, October 2018, and October 2019 and are expected to provide an additional \$2.2 million, \$2.3 million, and \$2.3 million, respectively, in annual revenue to help fund the Division.

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 long-term debt includes \$11.5 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 6.9 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

In May 2017, the KUB Board approved a \$12 million line of credit for fiscal year 2018 for the Division.

GASB No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 83, Certain Asset Retirement Obligations, is effective for fiscal years beginning after June 15, 2018. GASB Statement No. 84, Fiduciary Activities, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 85, Omnibus 2017, and GASB Statement No. 86, Certain Debt Extinguishment Issues, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 87, Leases, is effective for fiscal years beginning after December 15, 2019. 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 2017.

# **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, 2017 and 2016. 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, 2017 and 2016**

		2017		2016
Assets and Deferred Outflows of Resources				
Current assets:	Φ.	40.004.000	Φ.	44 000 440
Cash and cash equivalents	\$	13,391,230	\$	11,036,149
Short-term contingency fund investments		8,522,367		3,597,830
Other current assets		812,562		240,425
Accrued interest receivable		7,586		2,595
Accounts receivable, less allowance of uncollectible accounts		5 404 540		4 440 445
of \$28,971 in 2017 and \$46,630 in 2016		5,494,510		4,440,145
Inventories		1,824,057		630,535
Gas storage		7,884,634		8,010,091
Prepaid expenses	_	60,816	_	66,013
Total current assets	_	37,997,762	_	28,023,783
Restricted assets:				
Gas bond fund		3,216,035		3,145,854
Other funds		5,344		3,641
Total restricted assets	_	3,221,379	_	3,149,495
	_	-, ,		-, -,
Gas plant in service		382,843,199		364,632,055
Less accumulated depreciation	_	(128,466,807)	_	(121,932,008)
		254,376,392		242,700,047
Retirement in progress		139,420		54,370
Construction in progress	_	16,769,035	_	20,777,003
Net plant in service	_	271,284,847	_	263,531,420
Otherwoods				
Other assets:		0 606 430		10 754 070
Linder recovered purchased gas costs		8,696,439		12,754,872
Under recovered purchased gas costs Other		3,744,086		2,178,653
	-	1,666,951	_	1,569,632
Total other assets	-	14,107,476	-	16,503,157
Total assets	-	326,611,464	_	311,207,855
Deferred outflows of resources:				
Pension outflow		1,545,438		1,760,739
Unamortized bond refunding costs		1,100,393		1,243,933
Total deferred outflows of resources	_	2,645,831	_	3,004,672
Total assets and deferred outflows of resources	\$ -	329,257,295	\$	314,212,527
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# **Knoxville Utilities Board Gas Division Statements of Net Position June 30, 2017 and 2016**

	:	2017		2016
Liabilities, Deferred Inflows, and Net Position				
Current liabilities:			_	
Current portion of revenue bonds	\$	5,730,000	\$	5,450,000
Sales tax collections payable		91,121		72,463
Accounts payable		6,897,851		4,930,035
Accrued expenses		1,239,156		1,004,924
Customer deposits plus accrued interest		3,862,132		3,677,724
Accrued interest on revenue bonds		1,346,844		1,329,087
Total current liabilities	19	9,167,104		16,464,233
Other liabilities:				
Accrued compensated absences	•	1,617,834		1,531,331
Customer advances for construction		1,379,150		984,710
Net pension liability		10,393		856,827
Other		18,881		37,751
Total other liabilities	;	3,026,258	_	3,410,619
Long-term debt:				
Gas revenue bonds	10 <sup>-</sup>	1,490,000		96,675,000
Unamortized premiums/discounts		4,671,708		3,488,853
Total long-term debt		6,161,708		100,163,853
Total liabilities		8,355,070		120,038,705
Deferred inflows of resources:				
Pension inflow		895,478		257,085
Total deferred inflows of resources		895,478		257,085
Total liabilities and deferred inflows of resources	129	9,250,548		120,295,790
Net position				
Net investment in capital assets	160	0,724,983		159,696,458
Restricted for:	100	5,721,000		100,000, 100
Debt service		1,869,191		1,816,767
Other		5,344		3,641
Unrestricted	3	7,407,229		32,399,871
Total net position		0,006,747	_	193,916,737
Total liabilities, deferred inflows, and net position		9,257,295	<b>\$</b> —	314,212,527
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# **Knoxville Utilities Board Gas Division Statements of Revenues, Expenses and Changes in Net Position Years Ended June 30, 2017 and 2016**

		2017	2016
Operating revenues	\$_	91,868,316	\$ 88,441,144
Operating expenses			
Purchased gas		43,714,612	41,212,470
Distribution		9,138,948	8,304,516
Customer service		2,718,267	2,676,224
Administrative and general		6,231,842	5,983,853
Provision for depreciation		12,261,903	11,481,432
Taxes and tax equivalents	_	7,692,016	7,390,744
Total operating expenses		81,757,588	77,049,239
Operating income	_	10,110,728	11,391,905
Non-operating revenues (expenses)			
Contributions in aid of construction		1,129,503	7,078,153
Interest and dividend income		290,772	183,418
Interest expense		(4,259,626)	(4,104,192)
Amortization of debt costs		69,727	70,748
Write-down of plant for costs recovered through contributions		(1,129,503)	(7,078,153)
Other	_	(121,591)	34,514
Total non-operating revenues (expenses)	_	(4,020,718)	(3,815,512)
Change in net position		6,090,010	7,576,393
Net position, beginning of year	_	193,916,737	186,340,344
Net position, end of year	\$_	200,006,747	\$ 193,916,737

# **Knoxville Utilities Board Gas Division Statements of Cash Flows June 30, 2017 and 2016**

		2017		2016
Cash flows from operating activities:				
Cash receipts from customers	\$	90,320,835	\$	89,485,188
Cash (payments to) receipts from other operations		233,101		999,976
Cash payments to suppliers of goods or services		(53,375,200)		(52,432,985)
Cash payments to employees for services		(9,312,276)		(8,871,606)
Payment in lieu of taxes	_	(6,987,365)	_	(6,737,649)
Net cash provided by operating activities	_	20,879,095	_	22,442,924
Cash flows from capital and related financing activities:				
Net proceeds from bond issuance		21,370,188		-
Principal paid on revenue bonds and notes payable		(14,970,000)		(5,420,000)
Interest paid on revenue bonds and notes payable		(4,241,869)		(4,093,173)
Acquisition and construction of gas plant		(21,462,958)		(34,428,703)
Changes in gas bond fund, restricted		(70,181)		(34,352)
Customer advances for construction		409,440		267,894
Proceeds received on disposal of plant		13,776		1,028
Cash received from developers and individuals for capital purposes	_	1,129,503	_	7,078,153
Net cash used in capital and related financing activities	_	(17,822,101)	_	(36,629,153)
Cash flows from investing activities:				
Changes in deposit and investment accounts:				
Purchase of investment securities		(4,556,524)		(4,099,811)
Maturities of investment securities		3,590,286		2,949,225
Interest received		270,992		181,931
Other property and investments		(6,667)		(71,886)
Net cash used in investing activities	_	(701,913)	-	(1,040,541)
Net increase (decrease) in cash and cash equivalents		2,355,081		(15,226,770)
Cash and cash equivalents, beginning of year	_	11,036,149	_	26,262,919
Cash and cash equivalents, end of year	\$ _	13,391,230	\$	11,036,149
Reconciliation of operating income to net cash provided by operating activities				
Operating income	\$	10,110,728	\$	11,391,905
Adjustments to reconcile operating income to net cash				
provided by operating activities:				
Depreciation expense		12,551,251		11,709,804
Changes in operating assets and liabilities:				
Accounts receivable		(1,054,365)		1,490,134
Inventories		(1,193,522)		(164,939)
Prepaid expenses		130,654		1,426,802
Other assets		(580,225)		89,621
Sales tax collections payable		18,658		(2,211)
Accounts payable and accrued expenses		2,295,811		(331,456)
Underrecovered gas costs		(1,565,433)		(3,242,414)
Customer deposits plus accrued interest		184,408		101,109
Other liabilities		(18,870)		(25,431)
Net cash provided by operating activities	\$ _	20,879,095	\$	22,442,924
Noncash capital activities:				
Acquisition of plant assets through developer contributions	\$	-	\$	-

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 sevenmember 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, 2017 and 2016, 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 March 2016, the GASB issued GASB Statement No. 82 (Statement No. 82), *Pension Issues – An amendment of GASB Statements No. 67, No. 68 and No. 73.* The objective of this Statement is to address certain issues that have been raised with respect to the presentation of payroll-related measures in required supplementary information, the selection of assumptions and treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes and

the classification of payments made by employers to satisfy employee contribution obligations. Statement No. 82 is effective for fiscal years beginning after June 15, 2016.

#### **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 \$289,348 in fiscal year 2017 and \$228,372 in fiscal year 2016. 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 \$48,832 in fiscal year 2017 and \$87,712 in fiscal year 2016.

# **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.

### 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, 2017 and 2016 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 and 2016 are based on a December 31, 2016 and 2015 measurement date, respectively. The net pension asset is \$123,941 (Division's share \$21,070) as of June 30, 2017 and the net pension liability is \$5,040,160 (Division's share \$856,827) as of June 30, 2016.

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, 2017 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 will be based on the December 31, 2016 measurement date. The total pension liability of the QEBA is \$185,077 (Division's share \$31,463) as of June 30, 2017.

The total pension liability is \$61,136 (Division's share \$10,393) as of June 30, 2017 and \$5,040,160 (Division's share \$856,827) as of June 30, 2016.

#### **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 differences between expected and actual experience in accordance with Statement No. 68.

### **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 18, 2017, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold \$12 million in gas system revenue bonds in August 2017 for the purpose of funding gas system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.07 percent. Debt service payments including principal and interest range from \$385,214 to \$628,356 with maturity in fiscal year 2047.

In May 2017, the KUB Board approved a \$12 million line of credit for fiscal year 2018 for the Division. As of October 18, 2017, there have been no draws on this line of credit.

### **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 (\$3,744,086) at June 30, 2017 and (\$2,178,653) at June 30, 2016.

### **Recently Issued Accounting Pronouncements**

In June 2015, the GASB issued GASB Statement No. 75 (Statement No. 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Statement addresses reporting by governments that provide OPEB to their employees. Statement No. 75 is effective for fiscal years beginning after June 15, 2017.

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 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 March 2017, the GASB issued GASB Statement No. 85 (Statement No. 85), *Omnibus 2017.* The objective of this Statement is to address practice issues that have been identified during

implementation and application of certain GASB Statements. Statement No. 85 is effective for fiscal years beginning after June 15, 2017.

In May 2017, the GASB issued GASB Statement No. 86 (Statement No. 86), *Certain Debt Extinguishment Issues*. The objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt. The Statement provides guidance for transactions in which cash and other monetary assets acquired with existing resources or resources other than the proceeds of refunding debt are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Statement No. 86 is effective for fiscal years beginning after June 15, 2017.

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.

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:

		2017		2016
Current assets				
Cash and cash equivalents	\$	13,391,230	\$	11,036,149
Short-term contingency fund investments		8,522,367		3,597,830
Other assets				
Long-term contingency fund investments		8,639,570		12,712,792
Restricted assets				
Gas bond fund		3,216,035		3,145,854
Other funds		5,344		3,641
	\$	33,774,546	\$	30,496,266
	_		-	

The above amounts do not include accrued interest of \$56,869 in fiscal year 2017 and \$42,080 in fiscal year 2016. 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, 2017:

		Deposit and Investment Maturities (in Years)								
		Fair		Less						
		Value		Than 1		1-5				
Supersweep NOW and Other Deposits	\$	13,810,233	\$	13,810,233	\$	-				
State Treasurer's Investment Pool		589,627		589,627		-				
Agency Bonds		16,715,062		8,075,492		8,639,570				
Certificates of Deposits	_	3,073,183	-	3,073,183	_	-				
	\$	34,188,105	\$	25,548,535	\$	8,639,570				

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, 2017:

• U.S. Agency bonds of \$8,639,570, 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:

	2017	2016
Wholesale and retail customers		
Billed services	\$ 3,838,388	\$ 3,122,483
Unbilled services	1,327,664	1,113,275
Other	357,429	251,017
Allowance for uncollectible accounts	 (28,971)	(46,630)
	\$ 5,494,510	\$ 4,440,145

# 5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2017	2016
Trade accounts	\$ 6,897,851	\$ 4,930,035
Salaries and wages	407,720	334,914
Self-insurance liabilities	321,604	300,161
Other current liabilities	 509,832	 369,849
	\$ 8,137,007	\$ 5,934,959

# 6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2016		Additions	Payments		Defeased		Balance June 30, 2017		Amounts Due Within One Year
L-2005 - 3.0 - 4.75% \$	10,020,000	\$	-	\$ 725,000	\$	9,295,000	\$	-	\$	-
N-2007 - 4.0 - 5.0%	550,000		-	550,000		-		-		=
P-2010 - 3.3 - 6.2%	12,000,000		-	540,000		-		11,460,000		570,000
Q-2012 - 2.0 - 4.0%	22,645,000		-	2,065,000		-		20,580,000		2,125,000
R-2012 - 2.0 - 4.0%	9,400,000		-	400,000		-		9,000,000		425,000
S-2013 - 2.0 - 4.0%	11,430,000		-	570,000		-		10,860,000		595,000
T-2013 - 2.0 - 4.6%	24,400,000		-	500,000		-		23,900,000		500,000
U-2015 - 2.0 - 3.5%	11,680,000		-	100,000		-		11,580,000		615,000
V-2016 - 2.125-5.0%	-		12,000,000	225,000		-		11,775,000		225,000
W-2017 - 5.0%	-	_	8,065,000	-			_	8,065,000		675,000
Total bonds \$_	102,125,000	\$_	20,065,000	\$ 5,675,000	\$_	9,295,000	\$	107,220,000	\$_	5,730,000
Unamortized Premium	3,488,853	_	1,595,609	289,649		123,105		4,671,708		-
Total long term debt \$	105,613,853	\$	21,660,609	\$ 5,964,649	\$	9,418,105	\$	111,891,708	\$_	5,730,000

	Balance June 30, 2015		Additions		Payments	Defeased		Balance June 30, 2016		Amounts Due Within One Year
L-2005 - 3.0 - 4.75% \$	10,715,000	\$	-	\$	695,000	\$ -	\$	10,020,000	\$	725,000
N-2007 - 4.0 - 5.0%	550,000		-		-	-		550,000		550,000
O-2010 - 2.0 - 3.0%	3,475,000		-		3,475,000	-		-		-
P-2010 - 3.3 - 6.2%	12,000,000		-		-	-		12,000,000		540,000
Q-2012 - 2.0 - 4.0%	23,345,000		-		700,000	-		22,645,000		2,065,000
R-2012 - 2.0 - 4.0%	9,600,000		-		200,000	-		9,400,000		400,000
S-2013 - 2.0 - 4.0%	11,480,000		-		50,000	-		11,430,000		570,000
T-2013 - 2.0 - 4.6%	24,600,000		-		200,000	-		24,400,000		500,000
U-2015 - 2.0 - 3.5%	11,780,000	_		_	100,000	 -	_	11,680,000	_	100,000
Total bonds \$_	107,545,000	\$_		\$_	5,420,000	\$ -	\$	102,125,000	\$_	5,450,000
Unamortized Premium	3,794,404		-		305,551	-		3,488,853		-
Total long term debt \$_	111,339,404	\$	-	\$	5,725,551	\$ -	\$	105,613,853	\$_	5,450,000

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

Fiscal		T	otal		Grand	
Year		Principal		Interest		Total
2018	\$	5,730,000	\$	4,121,181	\$	9,851,181
2019		5,905,000		3,956,096		9,861,096
2020		6,110,000		3,737,710		9,847,710
2021		6,360,000		3,473,860		9,833,860
2022		6,600,000		3,196,866		9,796,866
2023 - 2027		34,095,000		11,983,558		46,078,558
2028 - 2032		28,520,000		5,734,043		34,254,043
2033 - 2037		9,125,000		1,459,936		10,584,936
2038 - 2042		2,500,000		558,188		3,058,188
2042 - 2046	_	2,275,000		173,250		2,448,250
Total	\$_	107,220,000	\$	38,394,688	\$	145,614,688

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, 2017, these bond covenant requirements had been satisfied.

During fiscal year 2006, KUB's Gas Division issued Series L 2005 bonds to retire certain existing debt and fund gas system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series J 2001 bonds as such amounts mature.

During fiscal year 2008, KUB's Gas Division issued Series N 2007 bonds to fund gas system capital improvements.

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. Effective October 1, 2016, these bonds became subject to a 6.9 percent 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.

During fiscal year 2012, KUB's Gas Division issued Series Q 2012 bonds to retire Series K 2004 bonds.

During fiscal year 2013, KUB's Gas Division issued Series R 2012 bonds to fund gas system capital improvements. KUB's Gas Division also issued Series S 2013 bonds to retire Series M 2006 outstanding bonds.

During fiscal year 2014, KUB's Gas Division issued Series T 2013 to fund gas system capital improvements.

During fiscal year 2015, KUB's Gas Division issued Series U 2015 bonds to retire a portion of Series N 2007 outstanding bonds.

During fiscal year 2017, KUB's Gas Division issued Series V 2016 bonds to fund gas system capital improvements. KUB's Gas Division also issued Series W 2017 bonds to retire outstanding Series L 2005 bonds as follows. On April 7, 2017, \$8.1 million in revenue refunding bonds with an average interest rate of 5 percent were issued to currently refund \$9.3 million of outstanding bonds with an average interest rate of 4.4 percent. The net proceeds of \$9.4 million (after payment of \$0.1 million in issuance costs plus premium of \$1.3 million and an additional issuer equity contribution of \$0.1 million) were used to refund the bonds. As a result, the bonds are considered to be refunded and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 10 years by \$1.2 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$1 million.

Other liabilities consist of the following:

		Balance June 30, 2016		Increase		Decrease		Balance June 30, 2017
Accrued compensated absences Customer advances	\$	1,531,331	\$	2,543,663	\$	(2,457,160)	\$	1,617,834
for construction		984,710		939,131		(544,691)		1,379,150
Other		37,751		12,287		(31,157)	_	18,881
	\$_	2,553,792	\$_	3,495,081	\$_	(3,033,008)	\$_	3,015,865

		Balance June 30, 2015	Increase			Decrease		Balance June 30, 2016
Accrued compensated absences Customer advances	\$	1,507,803	\$	2,799,906	\$	(2,776,378)	\$	1,531,331
for construction		718,096		655,313		(388,699)		984,710
Other	_	63,182		53,012	_	(78,443)	_	37,751
	\$	2,289,081	\$	3,508,231	\$	(3,243,520)	\$	2,553,792

# 7. Lease Commitments

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

2018	\$ 71,154
2019	67,143
2020	 47,738
Total operating minimum lease payments	\$ 186,035

# 8. Capital Assets

Capital asset activity was as follows:

		Balance June 30, 2016		Increase		Decrease	Balance June 30, 2017
Production Plant	\$	14,640 \$	\$	-	\$	- \$	14,640
Distribution Plant							
Mains		247,902,074		13,527,191		(1,315,108)	260,114,157
Services and Meters/Regulators		87,482,037		6,872,563		(3,932,343)	90,422,257
Other Accounts	_	1,428,647		-	_	<u> </u>	1,428,647
Total Distribution Plant	\$	336,812,758 \$	\$	20,399,754	\$	(5,247,451) \$	351,965,061
Total General Plant	_	27,804,657		3,578,403	_	(519,562)	30,863,498
Total Plant Assets	\$	364,632,055 \$	5	23,978,157	\$	(5,767,013) \$	382,843,199
Less Accumulated Depreciation	_	(121,932,008)	_	(12,560,005)	_	6,025,206	(128,466,807)
Net Plant Assets	\$	242,700,047 \$	5	11,418,152	\$	258,193 \$	254,376,392
Work In Progress	_	20,831,373	_	20,302,490	_	(24,225,408)	16,908,455
Total Net Plant	\$	263,531,420 \$	§ _	31,720,642	\$	(23,967,215) \$	271,284,847

		Balance June 30, 2015	Increase	Decrease	Balance June 30, 2016
Production Plant	\$	14,640	\$ -	\$ - \$	14,640
Distribution Plant					
Mains		215,234,641	33,590,164	(922,731)	247,902,074
Services and Meters/Regulators		82,397,049	6,978,966	(1,893,978)	87,482,037
Other Accounts		1,330,905	103,742	(6,000)	1,428,647
Total Distribution Plant	\$	298,962,595	\$ 40,672,872	\$ (2,822,709) \$	336,812,758
Total General Plant	_	25,172,897	2,899,368	(267,608)	27,804,657
Total Plant Assets	\$	324,150,132	\$ 43,572,240	\$ (3,090,317) \$	364,632,055
Less Accumulated Depreciation	_	(113,395,656)	 (11,798,907)	3,262,555	(121,932,008)
Net Plant Assets	\$	210,754,476	\$ 31,773,333	\$ 172,238 \$	242,700,047
Work In Progress		37,277,731	29,759,691	(46,206,049)	20,831,373
Total Net Plant	\$	248,032,207	\$ 61,533,024	\$ (46,033,811) \$	263,531,420

# 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, 2017 and June 30, 2016, the amount of these liabilities was \$321,604 and \$300,161, respectively, resulting from the following changes:

	2017		2016
Balance, beginning of year	\$ 300,161	\$	306,714
Current year claims and changes in estimates	2,720,095		2,369,808
Claims payments	 (2,698,652)	_	(2,376,361)
Balance, end of year	\$ 321,604	\$	300,161

### 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 ("KUB") 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 to accrue benefits under the Plan.

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

	2016	2015
Inactive plan members:		
Terminated vested participants	43	39
Retirees and beneficiaries	605	628
Active plan members	<u>662</u>	<u>692</u>
Total	<u>1,310</u>	<u>1,359</u>

#### **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 address the loss 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, 2016:

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 \$4,816,913 and \$5,669,380 for 2015 and 2014, respectively, were made during KUB's fiscal years ending June 30, 2017 and 2016, respectively. Of these amounts, \$818,875 and \$963,795 are attributable to the Gas Division. The fiscal year 2017 contribution was determined as part of the January 1, 2015 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. The actuarial valuation for the Plan year ending December 31, 2016 resulted in an actuarially determined contribution of \$3,756,283 for the fiscal year ending June 30, 2018, based on the Plan's current funding policy. The Gas Division's portion of this contribution is \$638,568.

Subsequent to June 30, 2017, the actuarial valuation for the Plan year ending December 31, 2017 was completed. The actuarial valuation resulted in an actuarially determined contribution of \$3,156,661 for the fiscal year ending June 30, 2019, based on the Plan's current funding policy. The Gas Division's portion of this contribution is \$536,632. For the Plan year ending December 31, 2017, the Plan's actuarial funded ratio was 105.44 percent.

The actuarial valuations for the Plan years ending December 31, 2016 and 2017, which determine the actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

### **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, 2017 and 2016 will be based on the December 31, 2016 and 2015 measurement date, respectively. The Division's share of the net pension asset at June 30, 2017 is \$21,070 and the net pension liability at June 30, 2016 is \$856,827.

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

	2016	2015
Total pension liability	\$ 204,390,738 \$	204,502,350
Plan fiduciary net position	(204,514,679)	(199,462,190)
Plan's net pension (asset) liability	\$ (123,941) \$	5,040,160
		_
Plan fiduciary net position as a percentage of the		
total pension liability	100.06%	97.54%

Changes in Net Pension Liability are as follows:

	Increase						
	(Decrease)						
	Т	otal Pension	Pl	an Fiduciary	1	Net Pension	
		Liability	1	Net Position	Lia	Liability (Asset)	
		(a)	(b)			(a) - (b)	
Balances at December 31, 2015	\$	204,502,350	\$	199,462,190	\$	5,040,160	
Changes for the year:	*		Ψ	.00, .02, .00	•	3,0 .0, .00	
Service cost		4,226,985		-		4,226,985	
Interest		14,966,559		-		14,966,559	
Differences between Expected							
and Actual Experience		(2,233,762)		-		(2,233,762)	
Changes of Assumptions		(2,932,883)		-		(2,932,883)	
Contributions - employer		-		5,243,146		(5,243,146)	
Contributions - rollovers		-		549,781		(549,781)	
Contributions - member		-		5,294		(5,294)	
Net investment income		-		13,834,111		(13,834,111)	
Benefit payments		(14,138,511)		(14,138,511)		-	
Administrative expense		-		(441,332)		441,332	
Net changes		(111,612)		5,052,489		(5,164,101)	
Balances at December 31, 2016	\$	204,390,738	\$	204,514,679	\$	(123,941)	

## Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 27 years remaining as of January 1, 2014 and 26 years remaining as of January 1, 2015
Discount rate	7.5%
Salary increase	From 2.80% to 5.15% for January 1, 2014 and January 1, 2015, 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 December 31, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013.

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

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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, 2016 and 2015 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	2016	2015				
Domestic equity	5.6%	7.2%				
Non-U.S. equity	7.2%	7.4%				
Real estate equity	6.3%	6.5%				
Debt securities	1.6%	3.7%				
Cash and deposits	0.6%	2.6%				

#### Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2016 and 2015. 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, 2016, 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%		Current		1%	
	Decrease		Discount		Increase	
	 (6.5%)	Ra	ate (7.5%)		(8.5%)	
Plan's net pension liability	\$ 16,434,925	\$	(123,941)	\$	(14,585,088)	

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

For the year ended June 30, 2017, KUB recognized pension expense of \$4,674,543 (Division's share \$794,672).

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, 2015, this average was 5.00 years. During the measurement year, there was an experience gain of \$2,233,762 with \$446,752 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$1,787,010 (Division's share \$303,792). Unrecognized experience gains from prior periods were \$1,512,267 of which \$378,067 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of \$1,134,200 (Division's share \$192,814).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of \$2,932,884 with \$586,577 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$2,346,307 (Division's share \$398,872).

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 \$802,197. \$160,439 of that loss 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 \$7,522,599 of which \$1,482,006 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment losses 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, 2016 of \$6,682,351 (Division's share \$1,136,000). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,408,459 (Division's share \$409,438) at June 30, 2017 for employer contributions made between December 31, 2016 and June 30, 2017.

	Deferred Outflows of Resources		 erred Inflows Resources
Differences between expected and actual			
experience	\$	-	\$ 2,921,210
Changes in assumptions		-	2,346,307
Net difference between projected and actual			
earnings on pension plan investments		6,682,351	-
Contributions subsequent to measurement date		2,408,459	 -
Total	\$	9,090,810	\$ 5,267,517
Division's share	\$	1,545,438	\$ 895,478

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

Year ended Ju	ne 30:
2018 \$	2,639,508
2019	231,049
2020	1,825,626
2021	(872,890)
Thereafter	-

For the year ended June 30, 2016, KUB recognized pension expense of \$4,665,035 (Division's share \$793,056).

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, 2014, this average was 5.00 years. During the measurement year, there were no assumption or benefit changes. There was an experience gain of \$1,890,334 with \$378,067 of that recognized in the current year and in each of the next four years.

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 \$15,382,915. \$3,076,583 of that loss was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized investment gains from prior periods were \$6,378,310 of which \$1,594,577 was recognized as a reduction in pension expense in the current year.

Experience gains this year created a deferred inflow of resources of \$1,512,267 (Division's share \$257,085). The combination of unrecognized investment losses this year along with unrecognized net investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2015 of \$7,522,599 (Division's share \$1,278,842). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,834,692 (Division's share \$481,897) at June 30, 2016 for employer contributions made between December 31, 2015 and June 30, 2016.

	Deferred Outflows of Resources		 erred Inflows Resources
Differences between expected and actual			
experience	\$	-	\$ 1,512,267
Changes in assumptions		-	-
Net difference between projected and actual			
earnings on pension plan investments		7,522,599	-
Contributions subsequent to measurement date		2,834,692	 
Total	\$	10,357,291	\$ 1,512,267
Division's share	\$	1,760,739	\$ 257,085

## 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.

There are 689 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There are no inactive employees or retirees currently in the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or reemployed 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.

#### Implementation of GASB 73

In fiscal year 2016, KUB adopted 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, 2017 will be based on the December 31, 2016 measurement date.

## **Notes to Financial Statements**

June 30, 2017 and 2016

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

	2016
Total pension liability	\$ 185,077
Deferred outflows	-
Deferred inflows	-
Net impact on Statement of Net Position	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a % of covered payroll	0.42%

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

	Increas	e (Decrease)
		l Pension iability
Balances at December 31, 2015	\$	-
Changes for the year:		
Service cost		-
Interest		-
Changes of Benefits		185,077
Differences between Expected and Actual Experience		-
Changes of Assumptions		-
Contributions – employer		-
Contributions – rollovers		-
Contributions – member		-
Net investment income		-
Benefit payments		-
Net changes		185,077
Balances at December 31, 2016	\$	185,077
· · · · · · · · · · · · · · · · · · ·		

### Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation as of January 1, 2016 and projected to December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 25 years remaining as of January 1, 2016
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 percent

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The actuarial assumptions used in the January 1, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. The actuarial assumptions for GPB lump sum benefit election and post-disability behavior were adopted effective January 1, 2016 based upon a special experience study completed in early 2016.

#### 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 3.78% at December 31, 2016.

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, 2016, calculated using the discount rate of 3.78 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 (2.78 percent) or one percent higher (4.78 percent) than the current rate:

	1%		Current		1%		
	Decrease		Discount		Increase		
	(2.78%)		Rate (3.78%)		(4.78%)		
QEBA's total pension liability	\$	202,189	\$	185,077	\$	170,430	

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

For the year ended June 30, 2017, KUB recognized pension expense of \$185,077 for the QEBA (Division's share \$31,463). This amount is not expected to be the same as KUB's contribution to the QEBA (\$0), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions.

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, 2015, this average was 5 years. During the measurement year, there were no assumption changes or experience gains or losses. The benefit change of \$0.2 million is due to the implementation of the QEBA. Benefit changes are reflected immediately in the total pension liability of the QEBA.

#### 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 from 3 percent to 6 percent, depending on years of service, whether they contribute or not.

Matching contributions were previously remitted to the KUB Pension Plan (a separate defined benefit plan) in the name of the participant for employees hired prior to January 1, 2011. As of December 9, 2015, these Pension match assets moved from the KUB Pension Plan to the 401(k) Plan. Effective December 9, 2015, all matching contributions are remitted to the 401(k) Plan. The match and nonelective contributions for employees hired on or after January 1, 2011 are paid directly by KUB. KUB funded 401(k) matching contributions and nonelective contributions of \$1,963,541 (Division's share \$333,802) and \$1,739,057 (Division's share \$295,640), respectively, for the years ended June 30, 2017 and 2016.

## 13. Other Post-Employment Benefits (OPEB)

The Governmental Accounting Standards Board (GASB) established standards for the measurement, recognition, and reporting of other post-employment benefits (OPEB). OPEB includes post-employment benefits other than pension, which, for KUB, is presently limited to post-employment health care. GASB Statement No. 45 (Statement No. 45) requires the recognition of the accrued OPEB liability for the respective year, plus the disclosure of the total unfunded liability.

KUB currently provides post-employment health care benefits to 567 former employees and 580 covered dependents. The cost of coverage is shared with retirees and beneficiaries. KUB recognizes its share of the cost of post-employment health care benefits as an expense as claims are paid.

KUB amended its Group Health Plan in 1999, eliminating post-employment health care benefits for all employees hired on or after July 1, 1999. As of June 30, 2017, 334 active employees were eligible for individual and dependent coverage at separation. To qualify, the employee must meet the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and be enrolled in medical coverage on their last day.

In May 2006, the State of Tennessee adopted Tennessee Code Annotated, Title 8, Chapter 50, Part 12 authorizing governmental entities to establish Trusts for the purpose of pre-funding their respective OPEB liabilities.

Although Statement No. 45 does not require pre-funding of the liability, KUB has determined that it is in the long-term economic interest of KUB and its ratepayers to establish a Trust to pre-fund KUB's OPEB liability.

Knoxville Utilities Board Other Post-Employment Benefits Trust (the "Trust") is a single-employer Other Post-Employment Benefits Plan established by the Knoxville Utilities Board (KUB) 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.

KUB makes annual contributions to the Trust at an actuarially determined rate. 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.

An actuarial valuation of KUB's Postretirement Benefit Plan was performed for the Trust as of January 1, 2014 for fiscal year June 30, 2016 and January 1, 2015 for fiscal year June 30, 2017. The following table presents the OPEB cost for the year, the amount contributed to the Trust, and changes in the net OPEB obligation for fiscal year ending June 30:

	2017	2016
a) Net OPEB Obligation/(Asset) at		
beginning of fiscal year	\$ (171,064)	\$ (174,410)
b) Annual Required Contribution (ARC)	620,015	953,221
c) Interest on Net OPEB Obligation/(Asset)	(12,830)	(13,081)
d) Adjustment to ARC	(16,427)	 (16,427)
e) Annual OPEB Cost (b+c-d)	623,612	956,567
f) Employer Contributions	620,015	953,221
g) Net OPEB Obligation/(Asset) at	 	 
end of fiscal year (a+e-f)	\$ (167,467)	\$ (171,064)

KUB's annual OPEB cost, the percentage of annual OPEB cost contributed to the Trust, and the net OPEB obligation for fiscal year 2017 and the two preceding years were as follows:

## **Schedule of Employer Contributions**

oyer Year Requir	ed Actual	Percentage Contribute	
2015 3 497 3	372 3 497 37	2 100.00%	(174,410)
2016 953,22	21 953,221	100.00%	(171,064) (167,467)
	Year Requir Contribu 2015 3,497,3 2016 953,22	Actual Poyer Year         Required Contribution         Actual Contribution           2015         3,497,372         3,497,372           2016         953,221         953,221	Year         Required Contribution         Actual Contribute         Percentage Contribute           2015         3,497,372         3,497,372         100.00%           2016         953,221         953,221         100.00%

Total contributions to the OPEB Trust for the fiscal year ended June 30, 2017 were \$620,015 (Division's share \$105,403). The contribution to the Trust was consistent with the annual required contribution, as determined by the Postretirement Benefit Plan's actuarial valuation as of January 1, 2015, which was \$620,015 (Division's share \$105,403). As of June 30, 2017, the employer's OPEB obligation has been exceeded by \$167,467 (Division's share \$28,469).

The actuarial valuation for the Plan as of January 1, 2017 has been completed. The valuation determined that the Plan's actuarial accrued liability was \$45,473,686 (Division's share \$7,730,527). The actuarial value of the Plan's assets was \$48,934,219 (Division's share \$8,318,817). As a result, the Plan's unfunded actuarial accrued liability was (\$3,460,533) (Division's share (\$588,291)). The Plan's actuarial funded ratio was 108 percent. Due to the future implementation of GASB 75, the contributions made for fiscal year ending June 30, 2018 and 2019 will be the actuarially determined contribution instead of the annual required contribution and the actuarial cost method used to determine the contributions will change from the projected unit credit cost method to the entry age normal cost method. The actuarially determined contribution for fiscal

years ending June 30, 2018 and 2019 will be zero. See Required Supplementary Information for OPEB Schedule of Funding Progress.

The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution and actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The required schedule of funding progress immediately following the notes to the financial statements presents multi-year trend information about whether the actuarial value of Trust assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point.

Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Identification of actuarial methods and significant assumptions used to determine the annual required contribution for the fiscal year ending June 30, 2017:

I. Actuarial cost method	Projected unit credit cost method
II. Actuarial value of assets	Smoothed market value with
	phase-in method using a
	smoothing period of 5 years
III. Investment return	7.5%, based on the expected portfolio return
Projected salary increases	From 2.8% to 5.15%, based on years of service
Healthcare cost Trend:	

Medicare2015 - 2030+, ranging from 4.5% to 7.27%Non-Medicare2015 - 2030+, ranging from 4.5% to 8.48%IV. Amortization methodLevel dollar closed (30-year)

Remaining amortization period 21 years

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.

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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, 2017 and 2016 are summarized as follows:

	2017	2016
City of Knoxville Amounts billed by the Division for utilities and		
related services	\$ 665,091	\$ 590,941
Payments by the Division in lieu of property tax	3,739,824	3,682,642
Payments by the Division for services provided	173,175	94,019
Other divisions of KUB		
Amounts billed to other divisions for utilities		
and related services provided	258,237	246,060
Interdivisional rental expense	542,405	496,916
Amounts billed to the Division by other divisions		
for utilities services provided	302,158	268,957

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

	2017	2016		
Accounts receivable	\$ 11,122	\$ 6,644		

## 15. Natural Gas Supply Contract Commitments

For fiscal year 2017, the Gas Division hedged 59 percent of its total gas purchases via gas supply contracts. As of June 30, 2017, the Gas Division had hedged the price on approximately 9 percent of its anticipated gas purchases for fiscal year 2018.

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

		2018		2019	2020		2021	2022		
Transportation										
Tennessee Gas Pipeline	\$	3,270,828	\$	3,270,828	\$	1,090,276	\$	-	\$	-
East Tennessee Natural Gas		10,066,388		10,066,388		2,748,496		-		-
Storage										
Tennessee Gas Pipeline		1,787,976		1,787,976		595,992		-		-
East Tennessee Natural Gas		757,460		757,460		-		-		-
Saltville Natural Gas	_	1,870,560		1,870,560		1,483,600		1,290,120	_	1,290,120
Demand Total	\$_	17,753,212	\$	17,753,212	\$	5,918,364	\$	1,290,120	\$_	1,290,120

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Firm obligations related to purchased gas - commodity

	2018		2019	2020			2021	2022	
Baseload									
ConocoPhillips	\$	539,120	\$	-	\$	-	\$	-	\$ -
Shell Energy		1,545,810		-		-		-	-
BP Energy Company		7,539,459		7,044,621		1,647,925		-	-
CNX Gas		1,650,458		-		-		-	-
NJR Energy Services	_	960,986	_	892,628		_	_	-	 
Commodity Total	\$_	12,235,833	\$_	7,937,249	\$_	1,647,925	\$_	-	\$ 

The total commodity values presented here are based upon firm supply obligations with each individual natural gas supplier. The firm obligations value for ConocoPhillips, 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, CNX Gas, and NJR Energy Services are based upon firm supply obligations and the applicable NYMEX strip prices on June 30, 2017.

## 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 Funding Progress June 30, 2017 (Unaudited)

## **Other Post-Employment Benefits (OPEB)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
January 1, 2008	\$ -	\$108,329,141	\$108,329,141	0%	\$31,234,509	346.8%
January 1, 2009	14,593,487	100,726,738	86,133,251	14%	31,846,091	270.5%
January 1, 2010	21,275,643	58,475,364	37,199,721	36%	30,069,028	123.7%
January 1, 2011	40,749,815	64,289,254	23,539,439	63%	28,878,791	81.5%
January 1, 2012	37,907,357	61,603,466	23,696,109	62%	28,269,123	83.8%
January 1, 2013	38,571,803	63,341,531	24,769,728	61%	27,566,340	89.9%
January 1, 2014	43,409,955	46,889,808	3,479,853	93%	26,724,154	13.0%
January 1, 2015	47,705,478	47,745,640	40,162	100%	25,816,884	0.2%
* January 1, 2016	48,510,796	45,118,624	(3,392,172)	108%	25,243,127	(13.4%)
* January 1, 2017	48,934,219	45,473,686	(3,460,533)	108%	25,197,854	(13.7%)

<sup>\*</sup> The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

# Required Supplemental Information - Schedule of Changes in Net Pension Liability and Related Ratios

June 30, 2017 (Unaudited)

	*Year ended December 31						
		2016		2015		2014	
Total pension liability							
Service cost	\$	4,226,985	\$	4,157,062	\$	4,092,808	
Interest		14,966,559		14,812,784		14,698,657	
Differences between expected and actual experience		(2,233,762)		(1,890,334)		=	
Changes of assumptions		(2,932,883)		-		=	
Benefit payments, including refunds of member contributions		(14,138,511)		(15,350,926)		(15,533,167)	
Net change in total pension liability		(111,612)		1,728,586		3,258,298	
Total pension liability - beginning		204,502,350		202,773,764		199,515,466	
Total pension liability - ending (a)	\$	204,390,738	\$	204,502,350	\$	202,773,764	
Plan fiduciary net position	•		•		•		
Contributions - employer	\$	5,243,146	\$	5,991,887	\$	5,908,541	
Contributions - participants		555,075		487,546		475,854	
Net investment income		13,788,263		(95,430)		22,292,369	
Other additions		45,848		30,879		29,733	
Benefit payments, including refunds of member contributions		(14,044,511)		(15,274,926)		(15,405,167)	
Administrative expense		(441,332)		(397,160)		(378,085)	
Death benefits		(94,000)		(76,000)		(128,000)	
Net change in plan fiduciary net position**		5,052,489		(9,333,204)		12,795,245	
Plan fiduciary net position - beginning**		199,462,190		208,795,394		196,000,149	
Plan fiduciary net position - ending (b)**	\$	204,514,679	\$	199,462,190	\$	208,795,394	
Plan's net pension liability - ending (a) - (b)	\$	(123,941)	\$	5,040,160	\$	(6,021,630)	
Plan fiduciary net position as a percentage of the total							
pension liability		100.06%		97.54%		102.97%	
Covered payroll	\$	44,437,747	\$	44,446,743	\$	44,076,351	
Plan's net pension liability as a percentage of							
covered payroll		(0.28%)		11.34%		(13.66%)	

#### Notes to Schedule:

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

<sup>\*\*</sup> Excludes amounts related to 401(k) matching contributions.

# Required Supplemental Information - Schedule of Employer Pension Contributions June 30, 2017 (Unaudited)

	*Year ended December 31							
	 2016				2014			
Actuarially determined contribution Contribution in relation to the actuarially	\$ 5,243,146	\$	5,991,887	\$	5,908,541			
determined contribution	 5,243,146		5,991,887		5,908,541			
Contribution deficiency	\$ -	\$	-	\$	-			
Covered payroll	\$ 44,437,747	\$	44,446,743	\$	44,076,351			
Contributions as a percentage of covered payroll	11.80%		13.48%		13.41%			

### Notes to Schedule:

Valuation Dates: January 1, 2013, January 1, 2014 and January 1, 2015

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.

#### 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 closed period with 26 years remaining as of January 1, 2015
Discount rate: 8% at January 1, 2013, 7.5% at January 1, 2014 and January 1, 2015
Salary increases: From 2.58% to 7.92% for January 1, 2013 and from 2.80% to 5.15% for

January 1, 2014 and January 1, 2015, based on years of service

Mortality: Sex distinct RP-2000 Combined Mortality projected to 2018 using Scale AA for the January 1, 2013

valuation. Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA for the

January 1, 2014 and January 1, 2015 valuations.

Inflation: 2.8 percent

<sup>\*</sup> 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.

Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement

Schedule of Changes in Total Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	Year ended December 31 2016
Total pension liability	
Service cost	\$ -
Interest (includes interest on service cost)	-
Changes of benefit terms	185,077
Differences between expected and actual experience	-
Changes of assumptions	-
Benefit payments, including refunds of member contributions	
Net change in total pension liability	185,077
Total pension liability - beginning	-
Total pension liability - ending	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a percentage of	
covered payroll	0.42%

#### Notes to Schedule:

<sup>\*</sup> 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, 2017

(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), and OPEB Trust funds. 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 - \$1,500,000 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 \$450,000 per individual participant.

## Knoxville Utilities Board Gas Division Supplemental Information - Schedule of Debt Maturities by Fiscal Year June 30, 2017 (Unaudited)

44-45 45-46 Schedule 2
Continued on Next Page

		P-2010		Q-2	012	R-2	012	S-20	013
FY	Principal	Interest	Rebate*	Principal	Interest	Principal	Interest	Principal	Interest
17-18	570,000	628,023	219,808	2,125,000	744,598	425,000	270,530	595,000	351,300
18-19	595,000	606,363	212,227	2,190,000	680,848	425,000	257,780	615,000	327,500
19-20	620,000	581,075	203,376	2,260,000	615,148	450,000	240,781	645,000	302,900
20-21	645,000	553,175	193,611	2,350,000	524,748	475,000	222,781	695,000	277,100
21-22	670,000	521,731	182,606	2,445,000	430,748	475,000	203,781	715,000	249,300
22-23	695,000	488,231	170,881	2,540,000	332,948	500,000	184,781	730,000	227,850
23-24	725,000	453,481	158,718	2,645,000	231,348	525,000	169,781	745,000	205,950
24-25	750,000	413,606	144,762	760,000	125,548	550,000	159,281	790,000	183,600
25-26	785,000	372,358	130,325	780,000	102,748	575,000	142,781	800,000	159,900
26-27	815,000	328,200	114,870	800,000	79,348	575,000	130,560	840,000	135,900
27-28	845,000	279,300	97,755	830,000	54,348	600,000	117,625	875,000	110,700
28-29	880,000	228,600	80,010	855,000	27,788	625,000	99,625	905,000	84,450
29-30	915,000	175,800	61,530			650,000	84,000	940,000	57,300
30-31	950,000	120,900	42,315			675,000	64,500	970,000	29,100
31-32	1,000,000	62,000	21,700			725,000	44,250		
32-33						750,000	22,500		
33-34									
34-35									
35-36									
36-37									
37-38									
38-39									
39-40									
40-41									
41-42									
42-43									
43-44									

\$ 11,460,000 \$ 5,812,843 \$ 2,034,494 \$ 20,580,000 \$ 3,950,166 \$ 9,000,000 \$ 2,415,337 \$ 10,860,000 \$ 2,702,850

<sup>\*</sup>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, 2016 these bonds became subject to a 6.9% 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, 2017 (Unaudited)

Schedule 2

## **Continued from Previous Page**

											<b>Grand Total</b>	<b>Grand Total</b>
	T-2	013	U-20	015	V-2	016	W-2	017	Totals		(P + I)	(Less Rebate)
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest		
17-18	500,000	996,825	615,000	395,637	225,000	371,343	675,000	362,925	5,730,000	4,121,181	9,851,181	9,631,373
18-19	500,000	976,825	660,000	377,187	250,000	360,093	670,000	369,500	5,905,000	3,956,096	9,861,096	9,648,869
19-20	500,000	956,825	680,000	357,387	250,000	347,594	705,000	336,000	6,110,000	3,737,710	9,847,710	9,644,334
20-21	500,000	936,825	710,000	323,387	250,000	335,094	735,000	300,750	6,360,000	3,473,860	9,833,860	9,640,249
21-22	500,000	916,825	740,000	287,887	275,000	322,594	780,000	264,000	6,600,000	3,196,866	9,796,866	9,614,260
22-23	500,000	901,825	795,000	250,888	300,000	308,844	815,000	225,000	6,875,000	2,920,367	9,795,367	9,624,486
23-24	500,000	886,200	805,000	233,000	325,000	293,844	850,000	184,250	7,120,000	2,657,854	9,777,854	9,619,136
24-25	1,550,000	869,950	845,000	208,850	325,000	280,844	900,000	141,750	6,470,000	2,383,429	8,853,429	8,708,667
25-26	1,600,000	813,763	880,000	183,500	350,000	267,844	940,000	96,750	6,710,000	2,139,644	8,849,644	8,719,319
26-27	1,650,000	749,763	895,000	154,900	350,000	253,844	995,000	49,750	6,920,000	1,882,265	8,802,265	8,687,395
27-28	1,700,000	683,763	985,000	123,573	375,000	243,344			6,210,000	1,612,653	7,822,653	7,724,898
28-29	1,750,000	615,763	975,000	89,100	375,000	232,094			6,365,000	1,377,420	7,742,420	7,662,410
29-30	1,950,000	543,575	955,000	59,850	375,000	220,844			5,785,000	1,141,369	6,926,369	6,864,839
30-31	2,000,000	460,700	1,040,000	31,200	400,000	212,875			6,035,000	919,275	6,954,275	6,911,960
31-32	2,000,000	373,200			400,000	203,875			4,125,000	683,325	4,808,325	4,786,625
32-33	2,000,000	283,200			425,000	194,375			3,175,000	500,075	3,675,075	3,675,075
33-34	2,100,000	193,200			425,000	183,750			2,525,000	376,950	2,901,950	2,901,950
34-35	2,100,000	96,600			425,000	173,125			2,525,000	269,725	2,794,725	2,794,725
35-36					450,000	162,500			450,000	162,500	612,500	612,500
36-37					450,000	150,686			450,000	150,686	600,686	600,686
37-38					475,000	138,312			475,000	138,312	613,312	613,312
38-39					475,000	125,250			475,000	125,250	600,250	600,250
39-40					500,000	112,188			500,000	112,188	612,188	612,188
40-41					525,000	98,438			525,000	98,438	623,438	623,438
41-42					525,000	84,000			525,000	84,000	609,000	609,000
42-43					550,000	68,250			550,000	68,250	618,250	618,250
43-44					550,000	51,750			550,000	51,750	601,750	601,750
44-45					575,000	35,250			575,000	35,250	610,250	610,250
45-46					600,000	18,000			600,000	18,000	618,000	618,000
Total \$	23,900,000	12,255,627	\$ 11,580,000	3,076,346	11,775,000	5,850,844	8,065,000	2,330,675	107,220,000	\$ 38,394,688	\$ 145,614,688 \$	143,580,194

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 \$8.65  First 30 therms per month at \$1.1118 per therm  Excess over 30 therms per month at \$0.8996 per therm  For the regular monthly billing periods for the months of May to October, inclusive:  Customer charge per month \$8.65  First 50 therms per month \$0.9331 per therm  Excess over 50 therms per month at \$0.8145 per therm	91,556
Commercial (G-4)	Available to any commercial or industrial customer:  Customer charge per month \$19.00  First 250 therms per month at \$1.0438 per therm  Excess over 250 therms per month at \$0.9292 per therm	9,185
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: \$140.00 per month  Demand charge: \$1.90 per therm of demand  Commodity charge: First 30,000 therms per month at \$0.6760 per therm  Excess over 30,000 therms per month at \$0.5839 per therm	252
Industrial (G-7)	<ul> <li>Service under Rate Schedule G-7 shall be available to any customer who meets the following conditions:</li> <li>(a) Customer's annual Interruptible Gas use, on an actual or projected basis, shall not be less than 25,000 dekatherms;</li> <li>(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;</li> <li>(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</li> <li>(d) KUB must determine that its existing distribution system facilities are adequate and available for the requested service.</li> </ul>	13

Schedule 3

Number of Customers

Schedule 3

The net rate is the sum of the following demand and commodity charges:

**Base Charge** 

Rate Class

Customer charge: \$350.00 per month

Demand charge: \$19.00 per month per dekatherm of demand Commodity charge: (a) Firm Gas - \$5.839 per dekatherm

(b) Interruptible Gas - (i) First 3,000 dekatherms per month at \$5.189 per dekatherm; excess of 3,000 to 20,000 dekatherms per month at \$4.602 per dekatherm; plus excess over 20,000 to 50,000 dekatherms per month at \$3.820 per dekatherm; excess over 50,000 dekatherms per month at \$3.555 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: \$2.064 per dekatherm for the first 3,000 dekatherms of gas Redelivered

plus Unauthorized Gas; plus \$1.477 per dekatherm for each dekatherm from

3,000 to and including 20,000 dekatherms of gas Redelivered plus Unauthorized Gas;

plus \$.695 per dekatherm for each dekatherm from 20,000 to and including 50,000 dekatherms of gas Redelivered plus Unauthorized Gas; plus \$.430 per

dekatherm for the excess over 50,000 dekatherms of gas Redelivered plus Unauthorized Gas.

Unauthorized \$15.00 per dekatherm of Unauthorized Gas as a penalty, plus the total of: (a) the Gas charge: 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.

Schedule 3

Rate Class

#### Base Charge

Number of Customers

13

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: \$450.00

Demand charge: \$19.00 per dekatherm of demand

Firm Gas charge: \$5.839 per dekatherm

Transportation charge: \$2.064 per dekatherm for the first 3,000 dekatherms of non-Firm gas

delivered to Customer; plus \$1.477 per dekatherm for each dekatherm from 3,000 to and including 20,000 dekatherms of non-Firm gas delivered to Customer; plus \$.695 per dekatherm for each dekatherm from 20,000 to and including 50,000 dekatherms of non-Firm gas delivered to Customer; plus \$.430 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.

Number of

Customers

4

Schedule 3

Rate Class Base Charge

G-12

Unauthorized \$15.00 per dekatherm of Unauthorized Gas as a penalty, plus (a), the total cost per Gas charge: dekatherm of obtaining such gas on the open market, as defined below, plus (b), the

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.

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.

The net rate is the sum of the following charges:

Customer charge: \$450.00

Demand charge: \$6.30 per dekatherm of demand

Transportation charge: \$2.333 per dekatherm for the first 3,000 dekatherms of gas delivered to Customer;

plus \$1.599 per dekatherm for each dekatherm from 3,000 to and including 20,000 dekatherms of gas delivered to Customer; plus \$.739 per dekatherm for each dekatherm from 20,000 to and including 50,000 dekatherms of gas delivered to Customer; plus \$.575 per dekatherm for the excess over 50,000 dekatherms of

gas delivered to Customer.

Schedule 3

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	\$15.00 per dekatherm of Unauthorized Gas as a penalty, plus (a), the total cost per	
	Gas charge:	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.	



phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

Report of Independent Auditors 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

## **Report on the Financial Statements**

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, 2017, 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 18, 2017.

## **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*.

## **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 18, 2017



## **Water Division**

# Financial Statements and Supplemental Information June 30, 2017 and 2016

## **KUB Board of Commissioners**

Celeste Herbert - Chair

John Worden - Vice Chair

Dr. Jerry W. Askew

Kathy Hamilton

Sara Hedstrom Pinnell

Tyvi Small

Nikitia Thompson

## Management

#### Mintha Roach

President and Chief Executive Officer

#### Mark Walker

Senior Vice President and Chief Financial Officer

#### **Susan Edwards**

Senior Vice President and Chief Administrative Officer

#### **Gabe Bolas**

Senior Vice President and Chief Engineer

### **Eddie Black**

Senior Vice President

## **Derwin Hagood**

Senior Vice President of Operations

#### Mike Bolin

Vice President

### **Julie Childers**

Vice President

## John Gresham

Vice President

### **Dawn Mosteit**

Vice President

## Paul Randolph

Vice President

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June 30, 2017 and 2016

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Report of Independent Auditors 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



phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

## Independent Auditors' 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, 2017 and 2016, 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**

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, 2017 and 2016, and the changes in financial position and cash flows thereof 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 56 through 59 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, 2017 and 2016, the changes in its financial position, or, where applicable, 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 18, 2017, 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 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 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 18, 2017

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, 2017 and 2016, 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, 2017 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 79,442 water system customers over a 186-square mile service area. KUB maintains 1,407 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 2017. The average daily flow for fiscal year 2017 was 34.6 million gallons.

The water system has added approximately 1,106 customers over the past three years representing annual growth of less than one percent. In fiscal year 2017, 462 customers were added. Customer additions included one new wholesale customer which represented a top ten revenue source.

The Division generated \$2 million of additional revenue during the fiscal year as a result of the July 2016 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 \$23.45 as of June 30, 2017 (based on monthly use of 500 cubic feet or 3,740 gallons). The monthly bill increased \$1 compared to the prior fiscal year, the result of the July 2016 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.

The Knoxville News Sentinel recognized KUB as one of Knoxville's Top Workplaces in 2017. KUB was among 30 outstanding companies selected for the award. Companies were measured on several qualities, such as company leadership, career opportunities, workplace flexibility, compensation and benefits, and the impact company policies have on innovation, productivity and morale of its workforce.

## **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 the 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.

KUB's Century II programs were resumed in 2011, after a break due to the economic recession. At that time, the KUB Board formally endorsed a ten-year funding plan for the water system, including a combination of rate increases and debt issues. The Board also approved three years of annual water rate increases for fiscal years 2012 through 2014.

In April 2014, KUB management provided the Board an updated assessment of the overall condition of each utility system and the progress made during the resumption of the Century II program. A revised ten-year funding plan for the water system, including recommendations for annual rate increases and debt issues to fully fund the programs for each division, was included in the assessment.

In June 2014, the Board approved the proposed three annual rate increases for the Water Division. The three rate increases were effective July 2014, July 2015 and July 2016. The July 2014, July 2015, and July 2016 rate increases provided an additional \$3.6 million, \$2 million, and \$2 million of additional annual Water Division revenue, respectively.

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 \$126.5 million in this effort, of which the Water Division's share is \$22.4 million. The deployment is funded in large part by debt issues and incremental rate increases. As of June 30, 2017, the Water Division completed its first-year deployment of advanced meters. KUB replaced approximately 28 percent of water meters, spending \$4.5 million on the deployment.

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 water rate increases are effective July 2017, July 2018, and July 2019 and are expected to provide an additional \$3.1 million, \$3.1 million, and \$3.3 million in annual revenue, respectively, to help fund the Water Division.

KUB remains on track with its Century II water system infrastructure program. In fiscal year 2017, KUB replaced 11.5 miles of galvanized water main and 6.3 miles of cast iron main.

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 \$120 million in various redundant facilities at the site of its existing Mark B. Whitaker Water Treatment Plant over the next 12 years.

## **Financial Highlights**

## Fiscal Year 2017 Compared to Fiscal Year 2016

The Division's net position increased \$6 million in fiscal year 2017, which was consistent with the last fiscal year.

Operating revenue increased \$3.3 million or 7 percent, the result of additional revenue from the water rate increase effective July 2016 and a 5.2 percent increase in billed water sales volumes.

Operating expenses increased \$2.8 million or 7.8 percent. Operating and maintenance expenses (O&M) increased \$1.7 million compared to the prior year. Depreciation expense increased \$0.7 million or 8.1 percent. Taxes and tax equivalents increased \$0.4 million from the prior year.

Interest income was up \$0.1 million from the prior fiscal year. Interest expense was \$0.4 million higher than the prior year due to the interest expense on new bonds sold during the fiscal year.

Capital contributions were \$0.2 million lower than the prior fiscal year, the result of fewer assets contributed by developers.

Total plant assets (net) increased \$17.2 million or 6.1 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 2017, KUB sold \$25 million in water system revenue bonds for the purpose of funding water system capital improvements and also sold a total of \$26.2 million in water system revenue refunding bonds to refinance existing water system bonds at lower interest rates. The refunding produced total debt service savings of \$3.2 million over the life of the bonds (\$2.8 million on a net present value basis).

As part of the rating process for the \$25 million in revenue bonds and \$20.9 million in revenue refunding bonds, Moody's upgraded its rating on KUB's water system bonds to Aa1 from Aa2. Aa1 is the second highest bond credit rating assigned by Moody's Investors Service. In its formal rating report, Moody's stated "the upgrade to Aa1 reflects the well-managed financial operations of the water system that continues to provide for solid debt service coverage and liquidity, a mature service area, and a manageable debt profile." The AAA bond rating from Standard and Poor's was reaffirmed. In its formal rating report on the water bonds, Standard and Poor's noted "based on our financial management assessment we view KUB to be '1' on a scale of 1-6, with '1' being the strongest."

Long-term debt represented 49.3 percent of the Division's capital structure as of June 30, 2017, as compared to 46.9 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 2.35. Maximum debt service coverage was 2.23.

## Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's net position during the year increased \$6 million compared to a \$5 million increase last fiscal year. A restatement to the fiscal year 2014's net position based on a change in method of accounting for pension expense reduced the total net position by \$0.1 million during fiscal year 2015.

Operating revenue increased \$3.3 million or 7.4 percent, the result of additional revenue from the water rate increase effective July 2015 and a 0.8 percent increase in water sales volumes.

Operating expenses increased \$2 million or 5.9 percent. Operating and maintenance expenses (O&M) increased \$0.6 million compared to the prior year. Depreciation expense increased \$1.3 million or 16.2 percent. Taxes and tax equivalents increased \$0.1 million from the prior year.

Interest income was up \$0.1 million from the prior fiscal year. Interest expense was \$0.2 million higher than the prior year due to additional interest expense from bonds sold in the August 2014 and April 2015.

Capital contributions were \$0.1 million higher than the prior fiscal year, the result of increased contributed assets from developers.

Total plant assets (net) increased \$23.2 million or 9 percent due to water main replacement, treatment plant improvements, and upgrades to various information systems.

Long-term debt represented 46.9 percent of the Division's capital structure as of June 30, 2016, as compared to 48.6 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 2.41. Maximum debt service coverage was 2.32.

#### **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)		2017		2016		2015
Current, restricted and other assets	\$	43,213	\$	33,888	\$	55,083
Capital assets, net		298,533		281,258		258,139
Deferred outflows of resources	_	4,607	_	3,273	_	2,459
Total assets and deferred outflows of resources	_	346,353	_	318,419		315,681
Current and other liabilities		11,912		13,097		10,996
Long-term debt outstanding		164,722		142,132		146,857
Deferred inflows of resources		685	_	197	_	829
Total liabilities and deferred inflows of resources	_	177,319	_	155,426		158,682
Net position						
Net investment in capital assets		134,011		138,069		110,579
Restricted		1,732		1,523		1,375
Unrestricted		33,291	_	23,401		45,045
Total net position	\$ _	169,034	\$	162,993	\$	156,999

#### **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 2017 Compared to Fiscal Year 2016

Current, restricted and other assets increased \$9.3 million or 27.5 percent. The increase reflects a \$2.6 million increase in inventories primarily due to Grid Modernization materials, a \$2.5 million increase in the Division's general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments), a \$2.1 million increase in operating contingency reserves, and a \$1.3 million increase in other current assets.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Current, restricted and other assets decreased \$21.2 million or 38.5 percent. The decrease reflects the utilization of \$9.9 million in bond proceeds and an \$11.9 million decrease in the Division's general fund cash (consisting of cash and cash equivalents, short-term investments, and long-term investments). These decreases were offset by a \$0.5 million increase in operating contingency reserves.

#### **Capital Assets**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Capital assets, net of depreciation, increased \$17.2 million or 6.1 percent. Capital expenditures included \$9.2 million for treatment plant and system improvements, \$7.7 million for water main replacement, \$3.9 million for the replacement and relocation of water system assets to accommodate TDOT highway improvement projects, and \$1.5 million for trucks and equipment. \$6.2 million of water system assets were retired during the fiscal year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Capital assets, net of depreciation, increased \$23.2 million or 9 percent. Capital expenditures included \$13.5 million for water main replacement, \$7.5 million for treatment plant and system improvements, \$2.8 million for the replacement and relocation of water system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects, and \$1.1 million for upgrades to various information systems. \$4.9 million of water system assets were retired during the fiscal year.

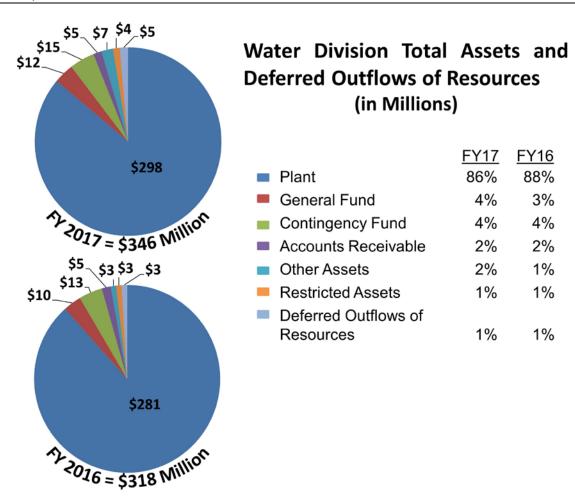
#### **Deferred Outflows of Resources**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred outflows of resources increased \$1.3 million compared to the prior fiscal year. This increase was the net effect of an increase of unamortized bond refunding costs of \$1.5 million offset by a decrease in pension outflow of \$0.2 million.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred outflows of resources increased \$0.8 million compared to the prior fiscal year. This increase was the net effect of an increase in pension outflow of \$0.9 million and a decrease of unamortized bond refunding costs of \$0.1 million.



#### **Current and Other Liabilities**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Current and other liabilities decreased \$1.2 million compared to the prior fiscal year. This decrease reflects a \$1.5 million decline in accounts payable and a decrease of \$0.6 million in the actuarially determined net pension obligation, offset by a \$0.7 million increase in the current portion of revenue bonds.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Current and other liabilities increased \$2.1 million over the prior fiscal year. Accounts payable at year end were \$0.9 million higher and the actuarially determined net pension obligation of \$0.7 million was recognized in fiscal year 2016.

#### **Long-Term Debt**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Long-term debt increased \$22.6 million or 15.9 percent. \$25 million in new revenue bonds were issued in July 2016. In July 2016 and March 2017, revenue refunding bonds of \$20.9 million and \$5.3 million were issued to refinance bonds sold in 2009 and 2005, respectively. The additional issuances offset by the defeased bonds and scheduled debt repayments accounted for the change in long-term debt.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Long-term debt decreased \$4.7 million or 3.2 percent, primarily due to \$4.6 million of long-term bond debt that shifted to current liabilities as payable within the next year.

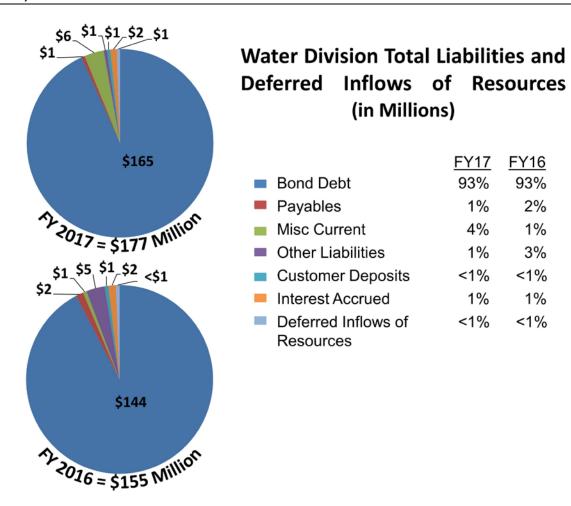
#### **Deferred Inflows of Resources**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred inflows increased \$0.5 million compared to the prior fiscal year due to differences in pension inflows.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred inflows decreased \$0.6 million compared to the prior fiscal year due to differences in pension inflows.



#### **Net Position**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Net position increased \$6 million this fiscal year. Unrestricted net position increased \$9.9 million, primarily due to a \$9 million increase in current and other assets compared to the prior fiscal year. Net investment in capital assets decreased \$4.1 million due to an increase in current portion of revenue bonds and total long-term debt of \$23.3 million offset by an increase to net plant in service of \$17.2 million. Restricted assets increased \$0.2 million due to additional funds restricted for debt service.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Net position increased \$6 million this fiscal year. Net investment in capital assets increased \$27.5 million due to an increase to net plant in service of \$23.2 million. Unrestricted net position decreased \$21.6 million, primarily due to an \$11.9 million decrease in general fund cash and a \$9.9 decrease in unused bond proceeds compared to June of the prior year. Restricted assets increased \$0.1 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)	2017		2016		2015
Operating revenues	\$ 50,770	\$	47,453	\$	44,173
Operating expenses					
Treatment	4,375		4,186		3,789
Distribution	13,986		12,645		13,046
Customer service	1,719		1,666		1,653
Administrative and general	4,956		4,838		4,206
Depreciation	9,793		9,055		7,795
Taxes and tax equivalents	4,087		3,717	_	3,622
Total operating expenses	 38,916		36,107	_	34,111
Operating income	 11,854		11,346	_	10,062
Interest income	308		194		135
Interest expense	(6,022)		(5,612)		(5,421)
Other income/(expense)	(223)	_	(235)	_	(23)
Change in net position before capital contributions	 5,917	_	5,693	_	4,753
Capital Contributions	 124		301	_	233
Change in net position	\$ 6,041	\$_	5,994	\$_	4,986

# 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 2017 Compared to Fiscal Year 2016

The Division's net position during the year increased \$6 million, which is consistent with the prior fiscal year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's net position during the year increased \$6 million compared to a \$5 million increase last fiscal year. A restatement to fiscal year 2014's net position based on a change in method of accounting for the pension reduced the total net position by \$0.1 million.

#### **Margin from Sales**

Residential

Commercial

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Operating revenues increased \$3.3 million or 7 percent, reflecting additional revenue from the July 2016 water rate increase and a 5.2 percent increase in billed water sales volumes. Operating expenses rose \$2.8 million and interest expense increased \$0.4 million.

39%

■ Residential ■ Commercial ■ Industrial ■ Other

FY 2017 Total Water Customers = 79,442 FY 2017 Water Sales = 8.4 Billion Gallons 2%\_ <1% 11% 8% 87% 46%

Other

Residential customers represented 87 percent of water customers and accounted for 39 percent of water sales volumes for the year. Commercial and industrial customers accounted for the largest portion (54 percent) of total sales volumes during the year.

KUB's ten largest water customers accounted for 24 percent of KUB's billed water volumes. Those ten customers represent two industrial and eight commercial customers, including seven governmental customers.

KUB has added 1,106 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.

Fiscal year 2017 water sales volumes were higher than the prior fiscal year, reflecting higher water sales for residential customers and the addition of a wholesale customer.

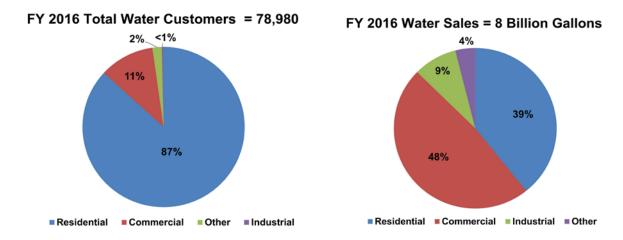
Residential water sales volumes increased 4.4 percent compared to the prior fiscal year. Residential sales were higher due to drought conditions experienced in the Knoxville area during the fiscal year's summer months.

Commercial water sales volumes increased 0.3 percent compared to the prior year. Industrial sales volumes decreased 1.6 percent compared to the prior year.

Other water sales volumes were 87.6 percent higher than the prior year. This increase is associated with the water system gaining a new wholesale customer.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Operating revenues increased \$3.3 million or 7.4 percent, reflecting additional revenue from the July 2015 water rate increase and a one percent increase in sales volumes. Operating expenses rose \$2 million and interest expense increased \$0.2 million.



Residential customers represented 87 percent of water customers and accounted for 39 percent of water sales volumes for the year. Commercial and industrial customers accounted for the largest portion (57 percent) of total sales volumes during the year.

KUB's ten largest water customers accounted for 11.9 percent of KUB's billed water volumes. Those ten customers represent five industrial and five commercial customers, including three governmental customers.

KUB has added 715 water customers over the past three years, representing annual growth of less than one percent. Water system growth has slowed in recent years, in large part due to the slowdown of new housing construction.

Fiscal year 2016 water sales volumes were slightly higher than the prior fiscal year, reflecting higher water sales for commercial and industrial customers. Sales volumes have remained relatively consistent by customer class over the last three years.

Residential water sales volumes were 1.6 percent lower than the prior fiscal year. Residential sales were lower throughout the majority of the year due to higher precipitation levels during the fiscal year.

Commercial sales volumes increased 0.4 percent compared to the prior year. Industrial sales volumes increased 2.8 percent compared to the prior year.

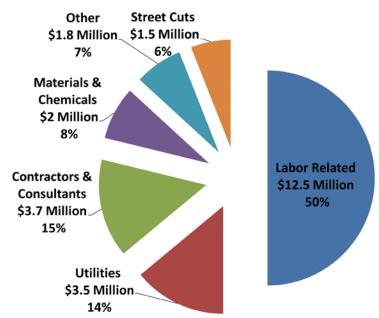
#### **Operating Expenses**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Operating expenses increased \$2.8 million or 7.8 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 increased \$0.2 million or 4.5 percent compared to the prior fiscal year.
- Distribution expenses were \$1.3 million or 10.6 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 higher than the prior fiscal year.
- Administrative and general expenses increased \$0.1 million, primarily due to labor related expenses.

# FY 2017 Water O&M Expense = \$25 Million



- Depreciation expense was up \$0.7 million, primarily due to Century II initiatives to replace mains, upgrades to various information systems, and the accelerated depreciation of existing meters that are to be replaced as part of KUB's Grid Modernization project. In addition, \$6.2 million of assets were retired during fiscal year 2017.
- Taxes and tax equivalents increased \$0.4 million from prior fiscal year due to increased plant in service levels.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Operating expenses increased \$2 million or 5.9 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.

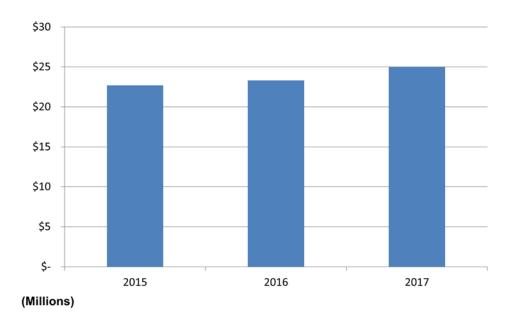
- Treatment expenses increased \$0.4 million or 10.5 percent, primarily reflecting higher labor related expenses.
- Distribution expenses were \$0.4 million or 3.1 percent lower than the prior fiscal year due to a
  decline in outside contractor costs.
- Customer service expenses were consistent with the prior fiscal year.
- Administrative and general expenses increased \$0.6 million due to higher pension expenses.

## Other **Street Cuts** \$1.5 Million \$1.3 Million 6% 6% Materials & Chemicals \$1.9 Million 8% **Labor Related** Contractors & \$12.1 Million **Consultants 52%** \$3.3 Million 14% **Utilities** \$3.2 Million 14%

### FY 2016 Water O&M Expense = \$23.3 Million

- Depreciation expense was up \$1.3 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 Grid Modernization project. In addition, \$4.9 million of assets were retired during fiscal year 2016.
- Taxes and tax equivalents increased \$0.1 million from prior fiscal year due to increased plant in service levels.

# Water Division Operation & Maintenance Expense



### Other Income and Expense

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Interest income increased \$0.1 million from the prior fiscal year.

Interest expense increased \$0.4 million, reflecting interest expense from new revenue bonds sold during the fiscal year.

Other income (net) was consistent with the prior fiscal year.

Capital contributions by developers were \$0.2 million lower than the prior fiscal year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Interest income increased \$0.1 million from the prior fiscal year.

Interest expense increased \$0.2 million, reflecting additional interest expense from revenue bonds sold in fiscal year 2015.

Other income (net) decreased \$0.2 million compared to the prior fiscal year.

Capital contributions by developers were \$0.1 million higher than the prior fiscal year.

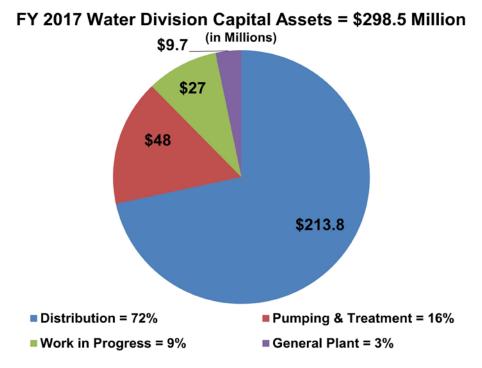
# **Capital Assets**

## Capital Assets As of June 30 (Net of Depreciation)

(in thousands of dollars)	2017		2016		2015
Production Plant Pumping & Treatment Plant	\$ 58 47,968	\$	58 50,067	\$	62 39,411
Distribution Plant	,000		33,33.		33, 111
Distribution Mains	\$ 151,095		141,200		126,124
Transmission Mains	25,013		22,295		19,182
Services & Meters	24,588		19,349		18,541
Other Accounts	13,084		11,620		11,057
<b>Total Distribution Plant</b>	213,780	\$	194,464	\$	174,904
Total General Plant	\$ 9,720	_	9,172	_	8,133
Total Water Plant	271,526	\$	253,761	\$	222,510
Work In Progress	 27,007	_	27,497		35,629
Total Net Plant	\$ 298,533	\$	281,258	\$	258,139

#### Fiscal Year 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$298.5 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 \$17.2 million or 6.1 percent over the end of the last fiscal year.

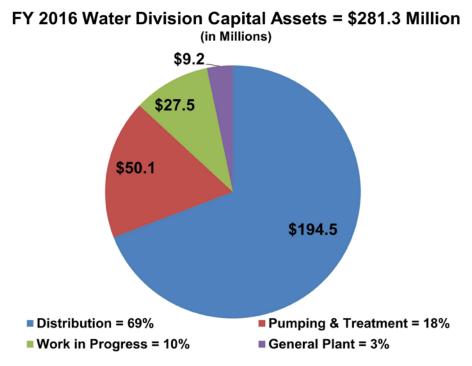


Major capital asset expenditures during the year were as follows:

- \$9.2 million for major plant and system improvements
- \$7.7 million for galvanized and cast iron water main replacement
- \$3.9 million for replacement and relocation of water system assets to accommodate TDOT highway improvement projects
- \$1.5 million for trucks and equipment

#### Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$281.3 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 \$23.2 million or 9 percent over the end of the last fiscal year.



Major capital asset expenditures during the year were as follows:

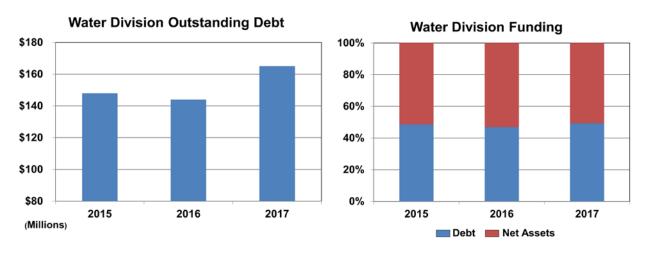
- \$13.5 million for galvanized and cast iron water main replacement
- \$7.5 million for major plant and system improvements
- \$2.8 million for replacement and relocation of water system assets to accommodate TDOT highway improvement projects
- \$1.1 million for upgrades to various information systems

#### **Debt Administration**

As of June 30, 2017, the Water Division had \$164.6 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 49.3 percent in 2017, 46.9 percent in 2016, and 48.6 percent at the end of fiscal year 2015. 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)	2017	2016	2015
Revenue bonds	\$ 164,635	\$ 143,990	\$ 148,400
Total outstanding debt	\$ 164,635	\$ 143,990	\$ 148,400



The Division will pay \$62.7 million in principal payments over the next ten years, representing 38.1 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 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$164.6 million in outstanding debt (including the current portion of revenue bonds), compared to \$144 million last year, an increase of \$20.6 million or 14.3 percent. The increase is attributable to the net effect of new revenue and refunding bond issuances. The Division's weighted average cost of debt as of June 30, 2017 was 3.56 percent.

KUB sold \$25 million in water system revenue bonds in July 2016 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 2.72 percent.

KUB sold \$20.9 million in water system revenue refunding bonds in July 2016 for the purpose of refinancing existing debt at lower interest rates. KUB will realize a total debt service savings of \$2.5 million over the life of the bonds (\$2.2 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.07 percent.

KUB sold \$5.3 million in water system revenue refunding bonds in March 2017 for the purpose of refinancing existing debt at lower interest rates. KUB will realize a total debt service savings of \$0.7 million over the life of the bonds (\$0.6 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 2.14 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2017, 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.

As part of the rating process for the \$25 million in revenue bonds and \$20.9 million in revenue refunding bonds, Moody's upgraded its rating on KUB's water system bonds to Aa1 from Aa2. Aa1 is the second highest bond credit rating assigned by Moody's Investors Service. In its formal rating report, Moody's stated "the upgrade to Aa1 reflects the well-managed financial operations of the water system that continues to provide for solid debt service coverage and liquidity, a mature service area, and a manageable debt profile." The AAA bond rating from Standard and Poor's was reaffirmed. In its formal rating report on the water bonds, Standard and Poor's noted "based on our financial management assessment we view KUB to be '1' on a scale of 1-6, with '1' being the strongest."

#### Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$144 million in outstanding debt (including the current portion of revenue bonds), compared to \$148.4 million last year, a decrease of \$4.4 million or 3 percent. The decrease is attributable to the scheduled repayment of bond debt. The Division's weighted average cost of debt as of June 30, 2016 was 3.82 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2016, the Division's revenue bonds were rated AAA by Standard & Poor's and Aa2 by Moody's Investors Service. The Standard and Poor's water rating represented the highest credit rating available from Standard and Poor's.

#### **Impacts on Future Financial Position**

KUB anticipates adding 200 additional water system customers during fiscal year 2018.

In June 2017, the KUB Board adopted the next three years of rate increases for all four Divisions to help fund the ongoing Century II infrastructure programs for each system. The approved water rate increases are effective July 2017, July 2018, and July 2019 and are expected to provide an additional \$3.1 million, \$3.1 million, and \$3.3 million in annual revenue, respectively, to help fund the Water Division.

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.

GASB No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 83, Certain Asset Retirement Obligations, is effective for fiscal years beginning after June 15, 2018. GASB Statement No. 84, Fiduciary Activities, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 85, Omnibus 2017, and GASB Statement No. 86, Certain Debt Extinguishment Issues, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 87, Leases, is effective for fiscal years beginning after December 15, 2019. 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 2017.

#### **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, 2017 and 2016. 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, 2017 and 2016

		2017		2016
Assets and Deferred Outflows of Resources				
Current assets:	•		•	
Cash and cash equivalents	\$	9,395,231	\$	9,392,817
Short-term investments		2,494,820		<u>-</u>
Short-term contingency fund investments		5,627,026		4,293,789
Other current assets		1,485,669		199,139
Accrued interest receivable		13,117		6,896
Accounts receivable, less allowance of uncollectible accounts				
of \$51,105 in 2017 and \$58,504 in 2016		5,438,545		5,360,089
Inventories		3,785,220		1,221,125
Prepaid expenses		46,506		50,480
Total current assets		28,286,134		20,524,335
Restricted assets:		2.050.700		0.054.400
Water bond fund		3,659,760		3,354,126
Other funds		4,087		2,784
Total restricted assets		3,663,847		3,356,910
Water plant in service		382,878,460		361,343,360
Less accumulated depreciation		(111,352,647)		(107,582,378)
Loss documated depressation		271,525,813		253,760,982
Retirement in progress		164,704		16,582
Construction in progress		26,842,085		27,480,060
Net plant in service		298,532,602		281,257,624
Not plant in solvido		200,002,002		201,201,024
Other assets:				
Long-term contingency fund investments		9,166,236		8,384,342
Other		2,096,704		1,623,210
Total other assets		11,262,940		10,007,552
Total assets		341,745,523		315,146,421
Deferred outflows of resources:				
Pension outflow		1,181,805		1,346,448
Unamortized bond refunding costs		3,425,713		1,926,554
Total deferred outflows of resources		4,607,518		3,273,002
Total assets and deferred outflows of resources	\$	346,353,041	\$	318,419,423

# Knoxville Utilities Board Water Division Statements of Net Position June 30, 2017 and 2016

		2017		2016
Liabilities, Deferred Inflows, and Net Position				
Current liabilities:				
Current portion of revenue bonds	\$	5,270,000	\$	4,560,000
Sales tax collections payable		288,887		284,220
Accounts payable		1,285,146		2,739,011
Accrued expenses		661,618		579,507
Customer deposits plus accrued interest		867,791		804,794
Accrued interest on revenue bonds		1,931,479	_	1,834,026
Total current liabilities		10,304,921	_	10,801,558
Other liabilities:				
Accrued compensated absences		1,578,105		1,601,156
Net pension liability		7,948		655,221
Other		20,742		39,036
Total other liabilities		1,606,795	_	2,295,413
Long-term debt:				
Water revenue bonds		159,365,000		139,430,000
Unamortized premiums/discounts		5,357,304		2,702,182
Total long-term debt	_	164,722,304	-	142,132,182
Total liabilities	_	176,634,020	_	155,229,153
Total liabilities	_	170,034,020	_	100,229,100
Deferred inflows of resources:				
Pension inflow		684,777	_	196,595
Total deferred inflows of resources		684,777	_	196,595
Total liabilities and deferred inflows of resources		177,318,797	_	155,425,748
Net position				
Net investment in capital assets		134,010,490		138,069,365
Restricted for:				, ,
Debt service		1,728,281		1,520,100
Other		4,087		2,784
Unrestricted		33,291,386		23,401,426
Total net position	_	169,034,244	_	162,993,675
Total liabilities, deferred inflows, and net position	\$	346,353,041	\$	318,419,423
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# Knoxville Utilities Board Water Division Statements of Revenues, Expenses and Changes in Net Position Years Ended June 30, 2017 and 2016

		2017		2016
Operating revenues	\$_	50,769,639	\$_	47,453,401
Operating expenses				
Treatment		4,375,320		4,186,197
Distribution		13,986,235		12,644,428
Customer service		1,718,639		1,666,099
Administrative and general		4,956,420		4,838,122
Provision for depreciation		9,792,630		9,055,221
Taxes and tax equivalents	_	4,086,575	_	3,717,163
Total operating expenses	_	38,915,819	_	36,107,230
Operating income	_	11,853,820	_	11,346,171
Non-operating revenues (expenses)				
Contributions in aid of construction		701,334		895,530
Interest and dividend income		307,829		194,146
Interest expense		(6,021,974)		(5,611,878)
Amortization of debt costs		(42,372)		(38,926)
Write-down of plant for costs recovered through contributions		(701,334)		(895,530)
Other	_	(180,574)	_	(196,211)
Total non-operating revenues (expenses)	_	(5,937,091)	_	(5,652,869)
Change in net position before capital contributions		5,916,729		5,693,302
Capital contributions	_	123,840	_	301,196
Change in net position		6,040,569		5,994,498
Net position, beginning of year	_	162,993,675	_	156,999,177
Net position, end of year	\$_	169,034,244	\$_	162,993,675

# Knoxville Utilities Board Water Division Statements of Cash Flows Years Ended June 30, 2017 and 2016

		2017		2016
Cash flows from operating activities:	_		_	
Cash receipts from customers	\$	50,102,809	\$	46,572,780
Cash receipts from other operations		24,129		1,132,220
Cash payments to suppliers of goods or services		(19,103,944)		(13,130,199)
Cash payments to employees for services		(11,024,085)		(10,805,634)
Payment in lieu of taxes	_	(3,294,652)	_	(2,976,406)
Net cash provided by operating activities	_	16,704,257	-	20,792,761
Cash flows from capital and related financing activities:				
Net proceeds from bond issuance		51,831,480		-
Principal paid on revenue bonds and notes payable		(30,540,000)		(4,410,000)
Decrease (increase) in unused bond proceeds		-		9,928,179
Interest paid on revenue bonds and notes payable		(5,924,521)		(5,377,407)
Acquisition and construction of water plant		(27,989,054)		(32,992,061)
Changes in water bond fund, restricted		(305,634)		(384,915)
Proceeds received on disposal of plant		13,469		9,435
Cash received from developers and individuals for capital purposes		701,334		895,530
Net cash used in capital and related financing activities		(12,212,926)		(32,331,239)
Cash flows from investing activities:				
Purchase of investment securities		(8,970,097)		(882,048)
Maturities of investment securities		4,278,641		410,830
Interest received		292,845		193,235
Other property and investments		(90,306)		(95,216)
Net cash used in investing activities	_	(4,488,917)	_	(373,199)
Net insurance (decrease) in each and each arrivalents		2.444	_	(44.044.077)
Net increase (decrease) in cash and cash equivalents		2,414		(11,911,677)
Cash and cash equivalents, beginning of year	_	9,392,817	_	21,304,494
Cash and cash equivalents, end of year	\$ _	9,395,231	\$ _	9,392,817
Reconciliation of operating income to net cash provided by operating activities				
Operating income	\$	11,853,820	\$	11,346,171
Adjustments to reconcile operating income to net cash				
provided by operating activities:				
Depreciation expense		10,123,113		9,331,667
Changes in operating assets and liabilities:				
Accounts receivable		(78,456)		(373,069)
Inventories		(2,564,095)		(183,799)
Prepaid expenses		3,974		(10,500)
Other assets		(1,294,216)		(40,478)
Sales tax collections payable		4,667		18,323
Accounts payable and accrued expenses		(1,389,253)		737,964
Customer deposits plus accrued interest		62,997		37,744
Other liabilities		(18,294)		(71,262)
Net cash provided by operating activities	\$ _	16,704,257	\$	20,792,761
Noncash capital activities:				
Acquisition of plant assets through developer contributions	\$	123,840	\$	301,196

#### 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, 2017 and 2016, 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 March 2016, the GASB issued GASB Statement No. 82 (Statement No. 82), *Pension Issues – An amendment of GASB Statements No. 67, No. 68 and No. 73.* The objective of this Statement is to address certain issues that have been raised with respect to the presentation of payroll-related measures in required supplementary information, the selection of assumptions and treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes

and the classification of payments made by employers to satisfy employee contribution obligations. Statement No. 82 is effective for fiscal years beginning after June 15, 2016.

#### **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 \$330,483 in fiscal year 2017 and \$276,446 in fiscal year 2016. 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 \$117,252 in fiscal year 2017 and \$140,244 in fiscal year 2016.

#### **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.

#### 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, 2017 and 2016 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 and 2016 are based on a December 31, 2016 and 2015 measurement date, respectively. The net pension asset is \$123,941 (Division's share \$16,112) as of June 30, 2017 and the net pension liability is \$5,040,160 (Division's share \$655,221) as of June 30, 2016.

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, 2017 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 will be based on the December 31, 2016 measurement date. The total pension liability of the QEBA is \$185,077 (Division's share \$24,060) as of June 30, 2017.

The total pension liability is \$61,136 (Division's share \$7,948) as of June 30, 2017 and \$5,040,160 (Division's share \$655,221) as of June 30, 2016.

#### 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 differences between expected and actual experience in accordance with Statement No. 68.

#### **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 18, 2017, 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 August 2017 for the purpose of funding water system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.05 percent. Debt service payments including principal and interest range from \$521,651 to \$1,068,056 with maturity in fiscal year 2047.

#### **Recently Issued Accounting Pronouncements**

In June 2015, the GASB issued GASB Statement No. 75 (Statement No. 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Statement addresses reporting by governments that provide OPEB to their employees. Statement No. 75 is effective for fiscal years beginning after June 15, 2017.

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 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 March 2017, the GASB issued GASB Statement No. 85 (Statement No. 85), *Omnibus 2017*. The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. Statement No. 85 is effective for fiscal years beginning after June 15, 2017.

In May 2017, the GASB issued GASB Statement No. 86 (Statement No. 86), *Certain Debt Extinguishment Issues*. The objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt. The Statement provides guidance for transactions in which cash and other monetary assets acquired with existing resources or resources other than the proceeds of refunding debt, are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Statement No. 86 is effective for fiscal years beginning after June 15, 2017.

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.

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 deposit 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:

2017		2016
\$ 9,395,231	\$	9,392,817
2,494,820		-
5,627,026		4,293,789
9,123,258		8,350,127
3,659,760		3,354,126
4,087		2,784
\$ 30,304,182	\$	25,393,643
-	\$ 9,395,231 2,494,820 5,627,026 9,123,258 3,659,760 4,087	\$ 9,395,231 \$ 2,494,820 5,627,026 9,123,258 3,659,760 4,087

The above amounts do not include accrued interest of \$42,978 in fiscal year 2017 and \$34,215 in fiscal year 2016. 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, 2017:

	Deposit and investment maturities (in Years)				
	Fair		Less		
_	Value	_	Than 1	_	1-5
\$	9,691,580	\$	9,691,580	\$	-
	911,943		911,943		-
	16,996,854		7,873,596		9,123,258
_	2,995,967	_	2,995,967	_	
\$ _	30,596,344	\$	21,473,086	\$	9,123,258
	· . <del>-</del>	Fair Value \$ 9,691,580 911,943 16,996,854 2,995,967	Fair Value \$ 9,691,580 \$ 911,943 16,996,854 2,995,967	Fair Less Value Than 1  \$ 9,691,580 \$ 9,691,580 911,943 911,943 16,996,854 7,873,596 2,995,967 2,995,967	Fair Less Value Than 1  \$ 9,691,580 \$ 9,691,580 \$ 911,943 911,943 16,996,854 7,873,596 2,995,967 2,995,967

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, 2017:

• U.S. Agency bonds of \$9,123,258, 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:

	2017	2016
Wholesale and retail customers		
Billed services	\$ 3,519,224	\$ 3,386,932
Unbilled services	1,766,433	1,846,174
Other	203,993	185,487
Allowance for uncollectible accounts	 (51,105)	 (58,504)
	\$ 5,438,545	\$ 5,360,089

# 5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

	2017	2016
Trade accounts	\$ 1,285,146	\$ 2,739,011
Salaries and wages	415,685	350,902
Self-insurance liabilities	 245,933	 228,605
	\$ 1,946,764	\$ 3,318,518

# 6. Long-Term Obligations

Long-term debt consists of the following:

		Balance June 30, 2016	Additions	Payments	Defeased	Balance June 30, 2017	Amounts Due Within One Year
S-2005 - 3.5 - 5.0%	\$	6,295,000	\$ -	\$ 465,000	\$ 5,830,000	\$ -	\$ -
T-2007 - 4.0 - 5.5%		750,000	-	750,000	-	-	-
U-2009 - 3.0 - 4.5%		22,625,000	-	875,000	19,875,000	1,875,000	925,000
W-2011 - 2.0 - 4.0%		22,800,000	-	550,000	-	22,250,000	550,000
X-2012 - 3.0 - 5.0%		8,665,000	-	515,000	=	8,150,000	535,000
Y-2013 - 3.0 - 4.0%		8,970,000	-	280,000	-	8,690,000	300,000
Z-2013 - 2.0 - 5.0%		23,675,000	-	500,000	-	23,175,000	500,000
AA-2014 - 2.0 - 4.0%		7,725,000	-	150,000	-	7,575,000	150,000
BB-2015 - 2.0 - 5.0%		22,835,000	-	100,000	-	22,735,000	865,000
CC-2015 - 2.0 - 4.0%		19,650,000	-	375,000	-	19,275,000	400,000
DD-2016 - 3.0-5.0%		-	25,000,000	275,000	-	24,725,000	475,000
EE-2016 - 2.0-5.0%		-	20,875,000	-	-	20,875,000	100,000
FF-2017 - 3.0-5.0%	_	-	 5,310,000	 -	 -	 5,310,000	 470,000
Total bonds	\$_	143,990,000	\$ 51,185,000	\$ 4,835,000	\$ 25,705,000	\$ 164,635,000	\$ 5,270,000
Unamortized Premium		2,702,182	3,085,193	270,448	159,623	5,357,304	-
Total long term debt	\$	146,692,182	\$ 54,270,193	\$ 5,105,448	\$ 25,864,623	\$ 169,992,304	\$ 5,270,000

		Balance June 30, 2015	Additions	Payments	Defeased	Balance June 30, 2016	Amounts Due Within One Year
S-2005 - 3.5 - 5.0%	\$	6,735,000	\$ -	\$ 440,000	\$ -	\$ 6,295,000	\$ 465,000
T-2007 - 4.0 - 5.5%		1,450,000	-	700,000	-	750,000	750,000
U-2009 - 3.0 - 4.5%		23,450,000	-	825,000	-	22,625,000	875,000
W-2011 - 2.0 - 4.0%		23,350,000	-	550,000	-	22,800,000	550,000
X-2012 - 3.0 - 5.0%		9,150,000	-	485,000	-	8,665,000	515,000
Y-2013 - 3.0 - 4.0%		9,235,000	-	265,000	-	8,970,000	280,000
Z-2013 - 2.0 - 5.0%		24,150,000	-	475,000	-	23,675,000	500,000
AA-2014 - 2.0 - 4.0%		7,875,000	-	150,000	-	7,725,000	150,000
BB-2015 - 2.0 - 5.0%		23,005,000	-	170,000	-	22,835,000	100,000
CC-2015 - 2.0 - 4.0%	_	20,000,000	 -	350,000	 -	 19,650,000	 375,000
Total bonds	\$_	148,400,000	\$ -	\$ 4,410,000	\$ -	\$ 143,990,000	\$ 4,560,000
Unamortized Premium		2,866,890	-	164,708	-	2,702,182	
Total long term debt	\$	151,266,890	\$ -	\$ 4,574,708	\$ -	\$ 146,692,182	\$ 4,560,000

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

Fiscal	To	Total						
Year	Principal		Interest		Total			
2018	\$ 5,270,000	\$	5,836,294	\$	11,106,294			
2019	5,435,000		5,647,674		11,082,674			
2020	5,670,000		5,419,674		11,089,674			
2021	5,885,000		5,209,075		11,094,075			
2022	6,160,000		4,987,525		11,147,525			
2023 - 2027	34,325,000		21,323,346		55,648,346			
2028 - 2032	38,980,000		15,516,770		54,496,770			
2033 - 2037	27,960,000		9,779,426		37,739,426			
2038 - 2042	23,475,000		4,774,655		28,249,655			
2043 - 2046	11,475,000		867,938		12,342,938			
Total	\$ 164,635,000	\$	79,362,377	\$	243,997,377			

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, 2017, these bond covenants had been satisfied.

During fiscal year 2006, KUB's Water Division issued Series S 2005 bonds to retire certain existing debt and fund water system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series P 2001 bonds, as such amounts mature.

During fiscal year 2008, KUB's Water Division issued Series T 2007 bonds to fund water system capital improvements.

During fiscal year 2010, KUB's Water Division issued Series U 2009 bonds to fund water system capital improvements.

During fiscal year 2012, KUB's Water Division issued Series W 2011 bonds to fund water system capital improvements. KUB's Water Division also issued Series X 2012 bonds to retire Series Q 2004 bonds.

During fiscal year 2013, KUB's Water Division issued Series Y 2013 bonds to retire a portion of outstanding Series R 2005 bonds.

During fiscal year 2014, KUB's Water Division issued Series Z 2013 bonds to fund water system capital improvements.

During fiscal year 2015, KUB's Water Division issued Series BB 2015 bonds to retire a portion of outstanding Series T 2007 bonds. KUB's Water Division also issued Series AA 2014 and Series CC 2015 bonds to fund water system capital improvements.

During fiscal year 2017, KUB's Water Division issued Series DD 2016 bonds to fund water system capital improvements. KUB's Water Division also issued Series EE 2016 bonds to retire a portion of outstanding Series U 2009 bonds as follows. On August 5, 2016, \$20.9 million in revenue refunding bonds with an average interest rate of 2.5 percent were issued to advance refund \$19.9 million of outstanding bonds with an average interest rate of 4.18 percent. The net proceeds of \$22 million (after payment of \$0.3 million in issuance costs plus premium of \$1 million and an additional issuer equity contribution of \$0.4 million) were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt

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service payments on the bonds. As a result, the bonds are considered to be defeased and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 16 years by \$2.5 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$2.2 million. KUB's Water Division also issued Series FF 2017 bonds to retire outstanding Series S 2005 bonds as follows. On April 7, 2017, \$5.3 million in revenue refunding bonds with an average interest rate of 4.1 percent were issued to currently refund \$5.8 million of outstanding bonds with an average interest rate of 4.3 percent. The net proceeds of \$5.9 million (after payment of \$0.1 million in issuance costs plus premium of \$0.6 million and an additional issuer equity contribution of \$0.1 million) were used to refund the bonds. As a result, the bonds are considered to be refunded and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 10 years by \$0.7 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$0.6 million.

In the current and prior years, certain revenue bonds were defeased by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the liability for the defeased bonds, \$19.9 million at June 30, 2017, and the trust account assets are not included in the financial statements.

Other liabilities consist of the following:

		Balance June 30, 2016		Increase		Decrease		Balance June 30, 2017
Accrued compensated								
absences	\$	1,601,156	\$	2,230,616	\$	(2,253,667)	\$	1,578,105
Other	_	39,036	_	33,280	_	(51,574)	_	20,742
	\$	1,640,192	\$_	2,263,896	\$	(2,305,241)	\$	1,598,847
		Balance June 30, 2015		Increase		Decrease		Balance June 30, 2016
Accrued compensated		June 30,		Increase		Decrease		June 30,
Accrued compensated absences	\$	June 30,	\$	Increase 2,496,404	\$	<b>Decrease</b> (2,419,737)	\$	June 30,
•	\$	June 30, 2015	\$		\$		\$	June 30, 2016

#### 7. Lease Commitments

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

2018	\$ 80,511
2019	77,444
2020	 56,080
Total operating minimum lease payments	\$ 214,035

# 8. Capital Assets

Capital asset activity was as follows:

		Balance June 30, 2016		Increase		Decrease		Balance June 30, 2017
Production Plant	\$	727,863	\$	_	\$	_	\$	727,863
Pumping & Treatment Plant	Ψ	78,207,281	Ψ	284,448	Ψ	(318,733)	Ψ	78,172,996
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Distribution Plant								
Distribution Mains		172,759,533		12,476,547		(930,661)		184,305,419
Transmission Mains		30,447,826		3,238,070		(294,075)		33,391,821
Services & Meters		29,944,881		7,414,299		(3,560,521)		33,798,659
Other Accounts		23,171,392	_	2,130,215	_	(137,958)		25,163,649
Total Distribution Plant	\$	256,323,632	\$	25,259,131	\$	(4,923,215)	\$	276,659,548
Total General Plant	_	26,084,584	_	2,225,014	_	(991,545)		27,318,053
Total Water Plant	\$	361,343,360	\$	27,768,593	\$	(6,233,493)	\$	382,878,460
Less Accumulated Depreciation		(107,582,378)		_(10,131,159)		6,360,890		(111,352,647)
Net Plant Assets	\$	253,760,982	\$	17,637,434	\$	127,397	\$	271,525,813
Work In Progress		27,496,642		27,559,634		(28,049,487)		27,006,789
Total Net Plant	\$	281,257,624	- \$	45,197,068	- \$	(27,922,090)	\$	298,532,602
101111111111111111111111111111111111111	Ψ.	201,201,021	= <sup> </sup>	10,107,000	= ~	(21,022,000)	Ψ	200,002,002
		Balance						Balance
		Balance June 30, 2015		Increase		Decrease		Balance June 30, 2016
Production Plant		June 30, 2015	\$		\$		•	June 30, 2016
Production Plant Pumping & Treatment Plant	\$	June <b>30, 2015</b> 727,863	\$	-	\$	- \$	;	June 30, 2016 727,863
Production Plant Pumping & Treatment Plant		June 30, 2015	\$		\$		ì	June 30, 2016
		June <b>30, 2015</b> 727,863	\$	-	\$	- \$	•	June 30, 2016 727,863
Pumping & Treatment Plant		June <b>30, 2015</b> 727,863	\$	-	\$	- \$	;	June 30, 2016 727,863
Pumping & Treatment Plant  Distribution Plant		727,863 65,525,607	\$	12,961,992	\$	- \$ (280,318)	,	June 30, 2016 727,863 78,207,281
Pumping & Treatment Plant  Distribution Plant  Distribution Mains		727,863 65,525,607 156,114,567	\$	12,961,992 17,443,111	\$	- \$ (280,318) (798,145)	}	June 30, 2016 727,863 78,207,281 172,759,533
Pumping & Treatment Plant  Distribution Plant  Distribution Mains  Transmission Mains		727,863 65,525,607 156,114,567 27,338,065	\$	12,961,992 17,443,111 3,580,781	\$	- \$ (280,318) (798,145) (471,020)		727,863 78,207,281 172,759,533 30,447,826
Pumping & Treatment Plant  Distribution Plant Distribution Mains Transmission Mains Services & Meters		727,863 65,525,607 156,114,567 27,338,065 29,722,371	\$ \$	12,961,992 17,443,111 3,580,781 2,759,765 1,321,165	\$ -	- \$ (280,318) (798,145) (471,020) (2,537,255)		727,863 78,207,281 172,759,533 30,447,826 29,944,881
Pumping & Treatment Plant  Distribution Plant Distribution Mains Transmission Mains Services & Meters Other Accounts		727,863 65,525,607 156,114,567 27,338,065 29,722,371 22,220,382	· ·	12,961,992 17,443,111 3,580,781 2,759,765 1,321,165	· _	- \$ (280,318)  (798,145) (471,020) (2,537,255) (370,155)		727,863 78,207,281 172,759,533 30,447,826 29,944,881 23,171,392
Pumping & Treatment Plant  Distribution Plant Distribution Mains Transmission Mains Services & Meters Other Accounts Total Distribution Plant		727,863 65,525,607 156,114,567 27,338,065 29,722,371 22,220,382 235,395,385	· ·	12,961,992 17,443,111 3,580,781 2,759,765 1,321,165 25,104,822 2,603,382	· _	(280,318) (798,145) (471,020) (2,537,255) (370,155) (4,176,575) \$	-	727,863 78,207,281 172,759,533 30,447,826 29,944,881 23,171,392 256,323,632
Pumping & Treatment Plant  Distribution Plant Distribution Mains Transmission Mains Services & Meters Other Accounts Total Distribution Plant  Total General Plant		727,863 65,525,607 156,114,567 27,338,065 29,722,371 22,220,382 235,395,385 23,938,079	\$	12,961,992 17,443,111 3,580,781 2,759,765 1,321,165 25,104,822 2,603,382	\$	- \$ (280,318) (798,145) (471,020) (2,537,255) (370,155) (4,176,575) \$	-	727,863 78,207,281 172,759,533 30,447,826 29,944,881 23,171,392 256,323,632
Pumping & Treatment Plant  Distribution Plant    Distribution Mains    Transmission Mains    Services & Meters    Other Accounts    Total Distribution Plant  Total General Plant    Total Water Plant		727,863 65,525,607 156,114,567 27,338,065 29,722,371 22,220,382 235,395,385 23,938,079 325,586,934	\$	12,961,992 17,443,111 3,580,781 2,759,765 1,321,165 25,104,822 2,603,382 40,670,196 (9,373,580)	\$	(280,318) (798,145) (471,020) (2,537,255) (370,155) (4,176,575) (4,176,575) (456,877) (4,913,770)		727,863 78,207,281 172,759,533 30,447,826 29,944,881 23,171,392 256,323,632 26,084,584 361,343,360
Pumping & Treatment Plant  Distribution Plant    Distribution Mains    Transmission Mains    Services & Meters    Other Accounts    Total Distribution Plant  Total General Plant    Total Water Plant    Less Accumulated Depreciation	\$	727,863 65,525,607 156,114,567 27,338,065 29,722,371 22,220,382 235,395,385 23,938,079 325,586,934 (103,077,327)	\$ -	12,961,992 17,443,111 3,580,781 2,759,765 1,321,165 25,104,822 2,603,382 40,670,196 (9,373,580)	\$ _	- \$ (280,318) (798,145) (471,020) (2,537,255) (370,155) (4,176,575) \$ (456,877) (4,913,770) \$ 4,868,529		727,863 78,207,281 172,759,533 30,447,826 29,944,881 23,171,392 256,323,632 26,084,584 361,343,360 (107,582,378)

#### 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, 2017 and June 30, 2016, the amount of these liabilities was \$245,933 and \$228,605, respectively, resulting from the following changes:

	2017		2016
Balance, beginning of year	\$ 228,605	\$	220,793
Current year claims and changes in estimates	2,081,003		1,825,029
Claims payments	 (2,063,675)	_	(1,817,217)
Balance, end of year	\$ 245,933	\$	228,605

#### 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 ("KUB") 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 to accrue benefits under the Plan.

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

	2016	2015
Inactive plan members:		
Terminated vested participants	43	39
Retirees and beneficiaries	605	628
Active plan members	<u>662</u>	<u>692</u>
Total	<u>1,310</u>	<u>1,359</u>

#### **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 address the loss 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, 2016:

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 \$4,816,913 and \$5,669,380 for 2015 and 2014, respectively, were made during KUB's fiscal years ending June 30, 2017 and 2016, respectively. Of these amounts, \$626,199 and \$737,019 are attributable to the Water Division. The fiscal year 2017 contribution was determined as part of the January 1, 2015 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. The actuarial valuation for the Plan year ending December 31, 2016 resulted in an actuarially determined contribution of \$3,756,283 for the fiscal year ending June 30, 2018, based on the Plan's current funding policy. The Water Division's portion of this contribution is \$488,317.

Subsequent to June 30, 2017, the actuarial valuation for the Plan year ending December 31, 2017 was completed. The actuarial valuation resulted in an actuarially determined contribution of \$3,156,661 for the fiscal year ending June 30, 2019, based on the Plan's current funding policy. The Water Division's portion of this contribution is \$410,366. For the Plan year ending December 31, 2017, the Plan's actuarial funded ratio was 105.44 percent.

The actuarial valuations for the Plan years ending December 31, 2016 and 2017, which determine the actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

#### **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, 2017 and 2016 will be based on the December 31, 2016 and 2015 measurement date, respectively. The Division's share of the net pension asset at June 30, 2017 is \$16,112 and the net pension liability at June 30, 2016 is \$655,221.

#### **Notes to Financial Statements**

June 30, 2017 and 2016

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

		2016	2015
Total pension liability	\$	204,390,738 \$	204,502,350
Plan fiduciary net position	_	(204,514,679)	(199,462,190)
Plan's net pension (asset) liability	\$	(123,941) \$	5,040,160

Plan fiduciary net position as a percentage of the

total pension liability 100.06% 97.54%

Changes in Net Pension Liability are as follows:

	Increase					
	(Decrease)					
	Т	otal Pension	Pl	an Fiduciary	1	Net Pension
		Liability	1	Net Position	Lia	ability (Asset)
		(a)		(b)		(a) - (b)
Balances at December 31, 2015	\$	204,502,350	\$	199,462,190	\$	5,040,160
Changes for the year:						
Service cost		4,226,985		-		4,226,985
Interest		14,966,559		-		14,966,559
Differences between Expected						
and Actual Experience		(2,233,762)		-		(2,233,762)
Changes of Assumptions		(2,932,883)		-		(2,932,883)
Contributions - employer		-		5,243,146		(5,243,146)
Contributions - rollovers		-		549,781		(549,781)
Contributions - member		-		5,294		(5,294)
Net investment income		-		13,834,111		(13,834,111)
Benefit payments		(14,138,511)		(14,138,511)		-
Administrative expense		-		(441,332)		441,332
Net changes		(111,612)		5,052,489		(5,164,101)
Balances at December 31, 2016	\$	204,390,738	\$	204,514,679	\$	(123,941)

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 27 years remaining as of January 1, 2014 and 26 years remaining as of January 1, 2015
Discount rate	7.5%
Salary increase	From 2.80% to 5.15% for January 1, 2014 and January 1, 2015, based on years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA
Inflation	2.8 %

45

The actuarial assumptions used in the December 31, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013.

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, 2016 and 2015 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	2016 2015				
Domestic equity	5.6%	7.2%			
Non-U.S. equity	7.2%	7.4%			
Real estate equity	6.3%	6.5%			
Debt securities	1.6%	3.7%			
Cash and deposits	0.6%	2.6%			

#### Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2016 and 2015. 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, 2016, 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%		Current	1%	
	Decrease (6.5%)	Discount Rate (7.5%)		Increase (8.5%)	
Plan's net pension liability	\$ 16,434,925	\$	(123,941) \$	(14,585,088	)

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

For the year ended June 30, 2017, KUB recognized pension expense of \$4,674,543 (Division's share \$607,691).

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, 2015, this average was 5.00 years. During the measurement year, there was an experience gain of \$2,233,762 with \$446,752 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$1,787,010 (Division's share \$232,311. Unrecognized experience gains from prior periods were \$1,512,267 of which \$378,067 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of \$1,134,200 (Division's share \$147,446).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of \$2,932,884 with \$586,577 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$2,346,307 (Division's share \$305,020).

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 \$802,197. \$160,439 of that loss 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 \$7,522,599 of which \$1,482,006 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment losses 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, 2016 of \$6,682,351 (Division's share \$868,705). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,408,459 (Division's share \$313,100) at June 30, 2017 for employer contributions made between December 31, 2016 and June 30, 2017.

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	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual				
experience	\$	-	\$	2,921,210
Changes in assumptions		-		2,346,307
Net difference between projected and actual				
earnings on pension plan investments		6,682,351		-
Contributions subsequent to measurement date		2,408,459		-
Total	\$	9,090,810	\$	5,267,517
Division's share	\$	1,181,805	\$	684,777

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

Year ended June	30:
2018 \$	2,639,508
2019	231,049
2020	1,825,626
2021	(872,890)
Thereafter	-

For the year ended June 30, 2016, KUB recognized pension expense of \$4,665,035 (Division's share \$606,455).

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, 2014, this average was 5.00 years. During the measurement year, there were no assumption or benefit changes. There was an experience gain of \$1,890,334 with \$378,067 of that recognized in the current year and in each of the next four years.

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 \$15,382,915. \$3,076,583 of that loss was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized investment gains from prior periods were \$6,378,310 of which \$1,594,577 was recognized as a reduction in pension expense in the current year.

Experience gains this year created a deferred inflow of resources of \$1,512,267 (Division's share \$196,595). The combination of unrecognized investment losses this year along with unrecognized net investment gains from prior periods results in a net difference between projected and actual earnings on pension plan investments as of December 31, 2015 of \$7,522,599 (Division's share \$977,938). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,834,692 (Division's share \$368,510) at June 30, 2016 for employer contributions made between December 31, 2015 and June 30, 2016.

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences between expected and actual				
experience	\$	-	\$	1,512,267
Changes in assumptions		-		-
Net difference between projected and actual				
earnings on pension plan investments		7,522,599		-
Contributions subsequent to measurement date		2,834,692		
Total	\$	10,357,291	\$	1,512,267
Division's share	\$	1,346,448	\$	196,595

#### 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.

There are 689 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There are no inactive employees or retirees currently in the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or reemployed 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.

#### Implementation of GASB 73

In fiscal year 2016, KUB adopted 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, 2017 will be based on the December 31, 2016 measurement date.

#### **Notes to Financial Statements**

June 30, 2017 and 2016

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

	2016
Total pension liability	\$ 185,077
Deferred outflows	-
Deferred inflows	-
Net impact on Statement of Net Position	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a % of covered payroll	0.42%

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

morodo	e (Decrease)
	ll Pension iability
\$	-
	-
	-
	185,077
	-
	-
	-
	-
	-
	-
	-
	185,077
\$	185,077
	Tota L

#### Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation as of January 1, 2016 and projected to December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 25 years remaining as of January
	1, 2016
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 percent

The actuarial assumptions used in the January 1, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. The actuarial assumptions for GPB lump sum benefit election and post-disability behavior were adopted effective January 1, 2016 based upon a special experience study completed in early 2016.

#### 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 3.78% at December 31, 2016.

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, 2016, calculated using the discount rate of 3.78 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 (2.78 percent) or one percent higher (4.78 percent) than the current rate:

	1%	(	Current		1%
D	ecrease	D	iscount	lı	ncrease
(	2.78%)	Rat	e (3.78%)	(	4.78%)
Φ.	000 400	Φ.	405 077	Φ.	470 400

QEBA's total pension liability \$

202,189 \$

185,077

170,430

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

For the year ended June 30, 2017, KUB recognized pension expense of \$185,077 for the QEBA (Division's share \$24,060). This amount is not expected to be the same as KUB's contribution to the QEBA (\$0), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions.

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, 2015, this average was 5 years. During the measurement year, there were no assumption changes or experience gains or losses. The benefit change of \$0.2 million is due to the implementation of the QEBA. Benefit changes are reflected immediately in the total pension liability of the QEBA.

#### 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 from 3 percent to 6 percent, depending on years of service, whether they contribute or not.

Matching contributions were previously remitted to the KUB Pension Plan (a separate defined benefit plan) in the name of the participant for employees hired prior to January 1, 2011. As of December 9, 2015, these Pension match assets moved from the KUB Pension Plan to the 401(k) Plan. Effective December 9, 2015, all matching contributions are remitted to the 401(k) Plan. The

match and nonelective contributions for employees hired on or after January 1, 2011 are paid directly by KUB. KUB funded 401(k) matching contributions and nonelective contributions of \$1,963,541 (Division's share \$255,260) and \$1,739,057 (Division's share \$226,077), respectively, for the years ended June 30, 2017 and 2016.

#### 13. Other Post-Employment Benefits (OPEB)

The Governmental Accounting Standards Board (GASB) established standards for the measurement, recognition, and reporting of other post-employment benefits (OPEB). OPEB includes post-employment benefits other than pension, which, for KUB, is presently limited to post-employment health care. GASB Statement No. 45 (Statement No. 45) requires the recognition of the accrued OPEB liability for the respective year, plus the disclosure of the total unfunded liability.

KUB currently provides post-employment health care benefits to 567 former employees and 580 covered dependents. The cost of coverage is shared with retirees and beneficiaries. KUB recognizes its share of the cost of post-employment health care benefits as an expense as claims are paid.

KUB amended its Group Health Plan in 1999, eliminating post-employment health care benefits for all employees hired on or after July 1, 1999. As of June 30, 2017, 334 active employees were eligible for individual and dependent coverage at separation. To qualify, the employee must meet the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and be enrolled in medical coverage on their last day.

In May 2006, the State of Tennessee adopted Tennessee Code Annotated, Title 8, Chapter 50, Part 12 authorizing governmental entities to establish Trusts for the purpose of pre-funding their respective OPEB liabilities.

Although Statement No. 45 does not require pre-funding of the liability, KUB has determined that it is in the long-term economic interest of KUB and its ratepayers to establish a Trust to pre-fund KUB's OPEB liability.

Knoxville Utilities Board Other Post-Employment Benefits Trust (the "Trust") is a single-employer Other Post-Employment Benefits Plan established by the Knoxville Utilities Board (KUB) 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.

KUB makes annual contributions to the Trust at an actuarially determined rate. 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.

An actuarial valuation of KUB's Postretirement Benefit Plan was performed for the Trust as of January 1, 2014 for fiscal year June 30, 2016 and January 1, 2015 for fiscal year June 30, 2017. The following table presents the OPEB cost for the year, the amount contributed to the Trust, and changes in the net OPEB obligation for fiscal year ending June 30:

	2017	2016
a) Net OPEB Obligation/(Asset) at		
beginning of fiscal year	\$ (171,064)	\$ (174,410)
b) Annual Required Contribution (ARC)	620,015	953,221
c) Interest on Net OPEB Obligation/(Asset)	(12,830)	(13,081)
d) Adjustment to ARC	 (16,427)	 (16,427)
e) Annual OPEB Cost (b+c-d)	623,612	 956,567
f) Employer Contributions	620,015	953,221
g) Net OPEB Obligation/(Asset) at		
end of fiscal year (a+e-f)	\$ (167,467)	\$ (171,064)

KUB's annual OPEB cost, the percentage of annual OPEB cost contributed to the Trust, and the net OPEB obligation for fiscal year 2017 and the two preceding years were as follows:

#### **Schedule of Employer Contributions**

Actuarial Valuation Date	Employer Annual Fiscal Year Contribution		Fiscal Year Actual Contribution	Percentage Contributed	Net OPEB Obligation	
1/1/2013	6/30/2015	3,497,372	3,497,372	100.00%	(174,410)	
1/1/2014	6/30/2016	953,221	953,221	100.00%	(171,064)	
1/1/2015	6/30/2017	620,015	620,015	100.00%	(167,467)	

Total contributions to the OPEB Trust for the fiscal year ended June 30, 2017 were \$620,015 (Division's share \$80,602). The contribution to the Trust was consistent with the annual required contribution, as determined by the Postretirement Benefit Plan's actuarial valuation as of January 1, 2015, which was \$620,015 (Division's share \$80,602). As of June 30, 2017, the employer's OPEB obligation has been exceeded by \$167,467 (Division's share \$21,771).

The actuarial valuation for the Plan as of January 1, 2017 has been completed. The valuation determined that the Plan's actuarial accrued liability was \$45,473,686 (Division's share \$5,911,579). The actuarial value of the Plan's assets was \$48,934,219 (Division's share \$6,361,448). As a result, the Plan's unfunded actuarial accrued liability was (\$3,460,533) (Division's share (\$449,869)). The Plan's actuarial funded ratio was 108 percent. Due to the future implementation of GASB 75, the contributions made for fiscal year ending June 30, 2018 and 2019 will be the actuarially determined contribution instead of the annual required contribution and the actuarial cost method used to determine the contributions will change from the projected unit credit cost method to the entry age normal cost method. The actuarially determined contribution for fiscal years ending June 30, 2018 and 2019 will be zero. See Required Supplementary Information for OPEB Schedule of Funding Progress.

The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution and actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The required schedule of funding progress immediately following the notes to the financial statements presents multi-year trend information about whether the actuarial value of Trust assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point.

Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Identification of actuarial methods and significant assumptions used to determine the annual required contribution for the fiscal year ending June 30, 2017:

I. Actuarial cost methodII. Actuarial value of assets

III. Investment return
Projected salary increases
Healthcare cost Trend:
Medicare
Non-Medicare

IV. Amortization method

Remaining amortization period

Projected unit credit cost method
Smoothed market value with
phase-in method using a
smoothing period of 5 years
7.5%, based on the expected portfolio return

From 2.8% to 5.15%, based on years of service 2015 - 2030+, ranging from 4.5% to 7.27%

2015 - 2030+, ranging from 4.5% to 8.48%

Level dollar closed (30-year)

21 years

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.

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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, 2017 and 2016 are summarized as follows:

	2017	2016
City of Knoxville		
Amounts billed by the Division for utilities and		
related services	\$ 4,192,452	\$ 4,005,989
Payments by the Division in lieu of property tax	3,294,652	2,976,406
Payments by the Division for services provided	621,164	607,858
Other divisions of KUB		
Amounts billed to other divisions for utilities		
and related services provided	392,769	397,610
Interdivisional rental expense	214,270	207,433
Interdivisional rental income	142,866	127,304
Amounts billed to the Division by other divisions		
for utilities services provided	3,294,969	2,811,375

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

	2017	2016
Accounts receivable	\$ 348,381	\$ 325,488

#### 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 Funding Progress June 30, 2017 (Unaudited)

#### **Other Post-Employment Benefits (OPEB)**

Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
\$ -	\$108,329,141	\$108,329,141	0%	\$31,234,509	346.8%
14,593,487	100,726,738	86,133,251	14%	31,846,091	270.5%
21,275,643	58,475,364	37,199,721	36%	30,069,028	123.7%
40,749,815	64,289,254	23,539,439	63%	28,878,791	81.5%
37,907,357	61,603,466	23,696,109	62%	28,269,123	83.8%
38,571,803	63,341,531	24,769,728	61%	27,566,340	89.9%
43,409,955	46,889,808	3,479,853	93%	26,724,154	13.0%
47,705,478	47,745,640	40,162	100%	25,816,884	0.2%
48,510,796	45,118,624	(3,392,172)	108%	25,243,127	(13.4%)
48,934,219	45,473,686	(3,460,533)	108%	25,197,854	(13.7%)
	Value of Assets (a)  \$ - 14,593,487 21,275,643 40,749,815 37,907,357 38,571,803 43,409,955 47,705,478 48,510,796	Actuarial Value of Liability Assets (AAL) (a) (b)  \$ - \$108,329,141 14,593,487 100,726,738 21,275,643 58,475,364 40,749,815 64,289,254 37,907,357 61,603,466 38,571,803 63,341,531 43,409,955 46,889,808 47,705,478 47,745,640 48,510,796 45,118,624	Actuarial Actuarial Value of Vassets (a)Actuarial Liability (b)Actuarial Liability (UAAL) (b)\$ - 14,593,487\$108,329,141 100,726,738 58,475,364 40,749,815 37,907,357 37,907,357 38,571,803 43,409,955 46,889,808 47,705,478 47,745,640 48,510,796\$Actuarial Actuarial (UAAL) (b) \$108,329,141 \$108,329,141 \$108,329,141 \$108,329,141 \$21,283,251 \$23,539,439 \$23,539,439 \$23,696,109 \$38,571,803 46,889,808 47,745,640 47,745,640 48,510,796\$Actuarial 	Actuarial Value of Assets (a)Actuarial Liability (b)Accrued Liability (b-a)Funded Ratio (a)/(b)\$ - 14,593,487 21,275,643 37,907,357 38,571,803 43,409,955 48,510,796\$108,329,141 40,745,640 45,118,624\$108,329,141 \$108,329,142 \$108,339,143 \$108,339,143 \$	Actuarial Value of Assets (a)Actuarial Liability (b)Accrued Liability (b-a)Funded Ratio (a)/(b)Covered Payroll (a)/(b)\$ - 14,593,487\$108,329,141 100,726,738 58,475,364 40,749,815 37,907,357 37,907,357 38,571,803 43,409,955 46,889,808 47,745,640 47,705,478\$108,329,141 40,162 40,162 40,162 40,162 40,162 40,162 40,162 40,162 40,162 40,162 40,162 40,168\$20,000 40,162 40,162 40,162 40,162 40,162 40,162 40,162

<sup>\*</sup> The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

Required Supplementary Information – Schedule of Changes in Net Pension Liability and Related Ratios
June 30, 2017

(Unaudited)

		*Ye	ar ei	nded December	r 31	
		2016		2015		2014
Total pension liability						
Service cost	\$	4,226,985	\$	4,157,062	\$	4,092,808
Interest		14,966,559		14,812,784		14,698,657
Differences between expected and actual experience		(2,233,762)		(1,890,334)		-
Changes of assumptions		(2,932,883)		-		-
Benefit payments, including refunds of member contributions		(14,138,511)		(15,350,926)		(15,533,167)
Net change in total pension liability		(111,612)		1,728,586		3,258,298
Total pension liability - beginning		204,502,350		202,773,764		199,515,466
Total pension liability - ending (a)	\$	204,390,738	\$	204,502,350	\$	202,773,764
Plan fiduciary net position						
Contributions - employer	\$	5,243,146	\$	5,991,887	\$	5,908,541
Contributions - participants	•	555,075	*	487,546	*	475,854
Net investment income		13,788,263		(95,430)		22,292,369
Other additions		45,848		30,879		29,733
Benefit payments, including refunds of member contributions		(14,044,511)		(15,274,926)		(15,405,167)
Administrative expense		(441,332)		(397,160)		(378,085)
Death benefits		(94,000)		(76,000)		(128,000)
Net change in plan fiduciary net position**		5,052,489		(9,333,204)		12,795,245
Plan fiduciary net position - beginning**		199,462,190		208,795,394		196,000,149
Plan fiduciary net position - ending (b)**	\$	204,514,679	\$	199,462,190	\$	208,795,394
Plan's net pension liability - ending (a) - (b)	\$	(123,941)	\$	5,040,160	\$	(6,021,630)
Plan fiduciary net position as a percentage of the total						
pension liability		100.06%		97.54%		102.97%
Covered payroll	\$	44,437,747	\$	44,446,743	\$	44,076,351
Plan's net pension liability as a percentage of						
covered payroll		(0.28%)		11.34%		(13.66%)

#### Notes to Schedule:

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

<sup>\*\*</sup> Excludes amounts related to 401(k) matching contributions.

### Required Supplementary Information – Schedule of Employer Pension Contributions June 30, 2017 (Unaudited)

	*Year ended December 31						
		2016		2015		2014	
Actuarially determined contribution  Contribution in relation to the actuarially	\$	5,243,146	\$	5,991,887	\$	5,908,541	
determined contribution		5,243,146		5,991,887		5,908,541	
Contribution deficiency	\$	-	\$	-	\$	-	
Covered payroll Contributions as a percentage of	\$	44,437,747	\$	44,446,743	\$	44,076,351	
covered payroll		11.80%		13.48%		13.41%	

#### Notes to Schedule:

Valuation Dates: January 1, 2013, January 1, 2014 and January 1, 2015

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.

#### 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 closed period with 26 years remaining as of January 1, 2015
Discount rate: 8% at January 1, 2013, 7.5% at January 1, 2014 and January 1, 2015
Salary increases: From 2.58% to 7.92% for January 1, 2013 and from 2.80% to 5.15% for

January 1, 2014 and January 1, 2015, based on years of service

Mortality: Sex distinct RP-2000 Combined Mortality projected to 2018 using Scale AA for the January 1, 2013

valuation. Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA for the

January 1, 2014 and January 1, 2015 valuations.

Inflation: 2.8 percent

<sup>\*</sup> 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.

Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement

Schedule of Changes in Total Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	Year ended December 31 2016					
Total panaian liability						
Total pension liability						
Service cost	\$ -					
Interest (includes interest on service cost)	-					
Changes of benefit terms	185,077					
Differences between expected and actual experience	-					
Changes of assumptions	-					
Benefit payments, including refunds of member contributions	-					
Net change in total pension liability	185,077					
Total pension liability - beginning						
Total pension liability - ending	\$ 185,077					
Covered payroll	\$44,437,747					
Total pension liability as a percentage of						
covered payroll	0.42%					

#### Notes to Schedule:

<sup>\*</sup> 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, 2017

(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), and OPEB Trust funds. 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 - \$1,500,000 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 \$450,000 per individual participant.

# Knoxville Utilities Board Water Division Supplemental Information - Schedule of Debt Maturities by Fiscal Year June 30, 2017 (Unaudited)

Schedule 2
Continued on Next Page

	U-	2009	w	-2011	X-2	012	Y-2	013	Z-2013		AA-	2014
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
17-18	925,000	75,000	550,000	844,250	535,000	320,000	300,000	273,800	500,000	989,625	150,000	257,250
18-19	950,000	38,000	550,000	827,750	565,000	293,250	320,000	261,800	525,000	979,625	150,000	252,750
19-20			550,000	805,750	590,000	265,000	340,000	249,000	550,000	963,875	175,000	246,750
20-21			550,000	789,250	625,000	235,500	350,000	235,400	575,000	947,375	175,000	243,250
21-22			550,000	772,750	655,000	204,250	375,000	221,400	600,000	930,125	175,000	238,000
22-23			500,000	756,250	670,000	184,600	400,000	210,150	625,000	912,125	200,000	231,000
23-24			500,000	741,250	690,000	164,500	415,000	198,150	625,000	893,375	200,000	223,000
24-25			500,000	726,250	710,000	143,800	435,000	185,700	650,000	874,625	200,000	215,000
25-26			500,000	710,625	735,000	120,725	450,000	172,650	675,000	852,688	225,000	209,000
26-27			500,000	693,125	765,000	95,000	470,000	159,150	700,000	828,219	225,000	202,250
27-28			500,000	673,125	790,000	64,400	1,250,000	145,050	750,000	800,219	225,000	195,500
28-29			500,000	655,625	820,000	32,800	1,300,000	107,550	775,000	770,219	250,000	188,750
29-30			500,000	635,625			2,285,000	68,550	800,000	738,250	250,000	181,250
30-31			500,000	617,500					825,000	704,250	275,000	173,438
31-32			500,000	598,750					850,000	669,188	275,000	164,844
32-33			500,000	580,000					900,000	632,000	300,000	155,906
33-34			2,000,000	560,000					925,000	591,500	300,000	146,156
34-35			2,000,000	480,000					950,000	549,875	325,000	136,032
35-36			2,000,000	400,000					1,000,000	507,125	325,000	124,656
36-37			2,000,000	320,000					1,025,000	460,875	350,000	113,282
37-38			2,000,000	240,000					1,075,000	413,469	350,000	101,031
38-39			2,000,000	160,000					1,100,000	363,750	375,000	88,781
39-40			2,000,000	80,000					1,150,000	308,750	375,000	75,656
40-41									1,200,000	251,250	400,000	62,531
41-42									1,225,000	191,250	425,000	48,031
42-43									1,275,000	130,000	450,000	32,625
43-44									1,325,000	66,250	450,000	16,313
44-45												
45-46												
;	\$_1,875,000	\$_113,000	\$_22,250,000 \$	13,667,875	\$ 8,150,000	\$_2,123,825	\$ 8,690,000	\$ 2,488,350	23,175,000	17,319,877	\$ <u>7,575,000</u> \$	\$ 4,323,032

#### Knoxville Utilities Board Water Division Supplemental Information - Schedule of Debt Maturities by Fiscal Year June 30, 2017 (Unaudited)

Schedule 2

#### **Continued from Previous Page**

	BB-2	015	CC-	-2015	DD-	2016	EE-2	2016	FF-2	.017	т	OTAL	Grand
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	 Total
17-18	865,000	786,700	400,000	696,406	475,000	819,750	100,000	585,143	470,000	188,370	5,270,000	5,836,294	11,106,294
18-19	885,000	743,450	425,000	684,406	500,000	796,000	100,000	580,143	465,000	190,500	5,435,000	5,647,674	11,082,674
19-20	950,000	699,200	425,000	667,406	525,000	771,000	1,090,000	575,143	475,000	176,550	5,670,000	5,419,674	11,089,674
20-21	960,000	680,200	450,000	650,406	550,000	744,750	1,155,000	520,644	495,000	162,300	5,885,000	5,209,075	11,094,075
21-22	1,000,000	661,000	475,000	632,406	575,000	717,250	1,245,000	462,894	510,000	147,450	6,160,000	4,987,525	11,147,525
22-23	1,050,000	611,000	475,000	613,406	625,000	688,500	1,315,000	400,644	530,000	127,050	6,390,000	4,734,725	11,124,725
23-24	1,110,000	558,500	500,000	599,156	650,000	657,250	1,380,000	334,894	550,000	105,850	6,620,000	4,475,925	11,095,925
24-25	1,170,000	503,000	525,000	587,906	675,000	624,750	1,435,000	307,294	575,000	78,350	6,875,000	4,246,675	11,121,675
25-26	1,210,000	467,900	550,000	574,782	700,000	604,500	1,460,000	278,594	605,000	49,600	7,110,000	4,041,064	11,151,064
26-27	1,245,000	428,575	550,000	560,344	725,000	583,500	1,515,000	249,394	635,000	25,400	7,330,000	3,824,957	11,154,957
27-28	1,260,000	385,000	575,000	543,844	750,000	561,750	1,560,000	219,094			7,660,000	3,587,982	11,247,982
28-29	1,275,000	340,900	600,000	526,594	775,000	539,250	1,605,000	187,894			7,900,000	3,349,582	11,249,582
29-30	1,315,000	296,275	625,000	508,594	800,000	516,000	1,645,000	155,794			8,220,000	3,100,338	11,320,338
30-31	2,740,000	256,825	650,000	489,060	825,000	492,000	1,710,000	120,838			7,525,000	2,853,911	10,378,911
31-32	2,800,000	174,625	675,000	467,938	825,000	467,250	1,750,000	82,362			7,675,000	2,624,957	10,299,957
32-33	2,900,000	90,625	700,000	446,000	850,000	442,500	1,810,000	42,988			7,960,000	2,390,019	10,350,019
33-34			725,000	418,000	900,000	417,000					4,850,000	2,132,656	6,982,656
34-35			750,000	389,000	925,000	390,000					4,950,000	1,944,907	6,894,907
35-36			775,000	359,000	950,000	362,250					5,050,000	1,753,031	6,803,031
36-37			800,000	330,906	975,000	333,750					5,150,000	1,558,813	6,708,813
37-38			825,000	301,906	1,000,000	304,500					5,250,000	1,360,906	6,610,906
38-39			875,000	272,000	1,025,000	274,500					5,375,000	1,159,031	6,534,031
39-40			900,000	237,000	1,050,000	243,750					5,475,000	945,156	6,420,156
40-41			925,000	201,000	1,100,000	212,250					3,625,000	727,031	4,352,031
41-42			975,000	164,000	1,125,000	179,250					3,750,000	582,531	4,332,531
42-43			1,000,000	125,000	1,150,000	145,500					3,875,000	433,125	4,308,125
43-44			1,050,000	85,000	1,200,000	111,000					4,025,000	278,563	4,303,563
44-45			1,075,000	43,000	1,225,000	75,000					2,300,000	118,000	2,418,000
45-46					1,275,000	38,250					1,275,000	38,250	1,313,250
	\$ 22,735,000	\$ 7,683,775	\$ 19,275,000	\$ 12,174,466	\$ 24,725,000	\$ 13,113,000	\$ 20,875,000	\$5,103,757_\$	5,310,000	1,251,420	\$ 164,635,000	\$ 79,362,377	\$ 243,997,377

# Knoxville Utilities Board Water Division Supplemental Information - Schedule of Current Rates in Force June 30, 2017

(Unaudited) Schedule 3

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:					
			Commodity Cha	rge		
	First	2	100 Cubic Feet F	et		
	Over	2	2 100 Cubic Feet Per Month at \$2.65 Per 100 Cubic Fee			et
		Additiona	al Monthly Custo	mer Cha	rge	
	F	or	5/8" meter	\$	15.00	
	F	or	1" meter		29.10	
	F	or	1 1/2" meter		41.00	
	F	or	2" meter		57.00	
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:					
Outside Oity fate	the corporate infints o	i the Oity o	T TO A WITE.			
			Commodity Cha	rge		
	First	2	100 Cubic Feet F	er Mont	h at \$0.30 Per 100 Cubic Fee	et
	Over	2	100 Cubic Feet F	Per Mont	h at \$3.20 Per 100 Cubic Fee	et
		Additio	onal Monthly Cus	stomer C	charge	
	F	or	5/8" meter	\$	16.40	
	F	or	1" meter		33.40	
	F	or	1 1/2" meter		47.40	
	F	or	2" meter		66.40	

# Knoxville Utilities Board Water Division Supplemental Information - Schedule of Current Rates in Force June 30, 2017

(Unaudited) Schedule 3

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:				
	Commodity Charge				
	First 2 100 Cubic Feet Per Month at \$1.70 Per 100 Cubic Feet Next 8 100 Cubic Feet Per Month at \$3.65 Per 100 Cubic Feet Next 90 100 Cubic Feet Per Month at \$4.50 Per 100 Cubic Feet Next 300 100 Cubic Feet Per Month at \$3.25 Per 100 Cubic Feet Next 4,600 100 Cubic Feet Per Month at \$2.10 Per 100 Cubic Feet Next 5,000 100 Cubic Feet Per Month at \$1.00 Per 100 Cubic Feet Next 5,000 100 Cubic Feet Per Month at \$1.00 Per 100 Cubic Feet Next 5,000 100 Cubic Feet Next	et et et			
	Additional Monthly Customer Charge				
Non-Residential Outside City rate	For 5/8" meter \$ 15.00  For 1" meter 29.10  For 1 1/2" meter 41.00  For 2" meter 57.00  For 3" meter 133.00  For 4" meter 221.00  For 6" meter 483.00  For 8" meter 849.00  For 10" meter 1,294.00  For 12" meter 1,914.00  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:	737			
	Commodity Charge				
	First 2 100 Cubic Feet Per Month at \$2.00 Per 100 Cubic Feet Next 8 100 Cubic Feet Per Month at \$4.25 Per 100 Cubic Feet Next 90 100 Cubic Feet Per Month at \$5.40 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 \$2.50 Per 100 Cubic Feet Next 5,000 100 Cubic Feet Per Month at \$1.20 Per 100 Cubic Feet Next 5,000 100 Cubic Feet Per Month at \$1.20 Per 100 Cubic Feet Next 5,000 100 Cubic Feet Per Month at \$1.20 Per 100 Cubic Feet Next 5,000 1	et et et et			
	Additional Monthly Customer Charge				
	For 5/8" meter \$ 16.40  For 1" meter 33.40  For 1 1/2" meter 47.40  For 2" meter 66.40  For 3" meter 159.00  For 4" meter 266.00  For 6" meter 580.00  For 8" meter 1,019.00  For 10" meter 1,551.00  For 12" meter 2,298.00				

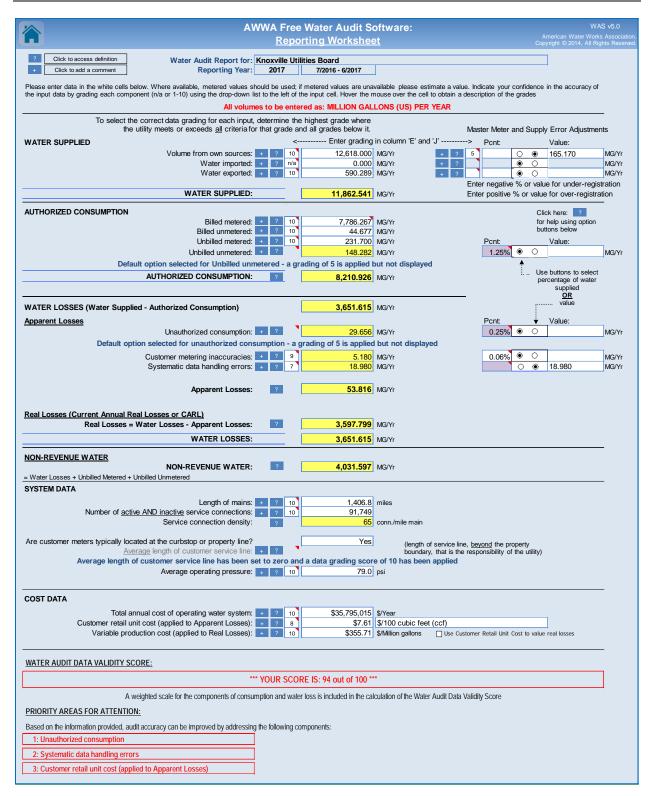
# Knoxville Utilities Board Water Division Supplemental Information - Schedule of Unaccounted for Water June 30, 2017 (Unaudited)

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 2017, 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 2016, water utilities are required to have a Validity Score greater than 70 and maintain non-revenue water as a percent by cost of operating system of less than 25%. For fiscal year 2017, KUB reported a Validity Score of 94 and non-revenue water as a percent by cost of operating system of 5.5%. For fiscal year 2016, KUB reported a Validity Score of 94 and non-revenue water as a percent by cost of operating system of 7.2%. See Supplemental Information Schedule 4 for the AWWA Reporting Worksheet.

Schedule 4

#### Knoxville Utilities Board Water Division Supplemental Information - Schedule of Unaccounted for Water June 30, 2017

(Unaudited) Schedule 4



## **Knoxville Utilities Board Water Division Supplemental Information - Schedule of Unaccounted for Water June 30, 2017**

(Unaudited) Schedule 4

	AWWA Free Water Audit Software:  System Attributes and Performance Indicators  WAS v5.0  American Water Works Association. Copyright © 2014, All Rights Reserved.					
	Water Audit Report for: Knoxville Utilities Board Reporting Year: 2017 7/2016 - 6/2017					
	*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 94 out of 100 ***					
System Attributes:	Apparent Losses: 53.816 MG/Yr					
	+ Real Losses: 3,597.799 MG/Yr					
	= Water Losses: 3,651.615 MG/Yr					
	2 Unavoidable Annual Real Losses (UARL): 616.29 MG/Yr					
	Annual cost of Apparent Losses: \$547,478					
	Annual cost of Real Losses: \$1,279,773 Valued at Variable Production Cost					
Performance Indicators:	Return to Reporting Worksheet to change this assumption					
	Non-revenue water as percent by volume of Water Supplied: 34.0%					
Financial:	Non-revenue water as percent by volume of Water Supplied: 34.0%  Non-revenue water as percent by cost of operating system: 5.5% Real Losses valued at Variable Production Cost					
	Apparent Losses per service connection per day: 1.61 gallons/connection/day					
Operational Efficiency:	Real Losses per service connection per day: 107.43 gallons/connection/day					
	Real Losses per length of main per day*: N/A					
L	Real Losses per service connection per day per psi pressure: 1.36 gallons/connection/day/psi					
	From Above, Real Losses = Current Annual Real Losses (CARL): 3,597.80 million qallons/year					
	2 Infrastructure Leakage Index (ILI) [CARL/UARL]: 5.84					
* This performance indicator applies f	or systems with a low service connection density of less than 32 service connections/mile of pipeline					



phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

Report of Independent Auditors 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

#### **Report on the Financial Statements**

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, 2017, 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 18, 2017.

#### **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 18, 2017



### **Wastewater Division**

### Financial Statements and Supplemental Information June 30, 2017 and 2016

#### **KUB Board of Commissioners**

Celeste Herbert - Chair

John Worden - Vice Chair

Dr. Jerry W. Askew

Kathy Hamilton

Sara Hedstrom Pinnell

Tyvi Small

Nikitia Thompson

#### Management

Mintha Roach

President and Chief Executive Officer

**Mark Walker** 

Senior Vice President and Chief Financial Officer

**Susan Edwards** 

Senior Vice President and Chief Administrative Officer

Gabe Bolas

Senior Vice President and Chief Engineer

**Eddie Black** 

Senior Vice President

**Derwin Hagood** 

Senior Vice President of Operations

Mike Bolin

Vice President

**Julie Childers** 

Vice President

John Gresham

Vice President

**Dawn Mosteit** 

Vice President

**Paul Randolph** 

Vice President

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June 30, 2017 and 2016

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Report of Independent Auditors 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



phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

#### Independent Auditors' 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, 2017 and 2016, 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

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, 2017 and 2016, and the changes in financial position and cash flows thereof 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 58 through 61 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, 2017 and 2016, the changes in its financial position, or, where applicable, 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 18, 2017, 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 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 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 18, 2017

## Knoxville Utilities Board Wastewater Division Management's Discussion and Analysis June 30, 2017 and 2016

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, 2017 and 2016, 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, 2017 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 70,751 wastewater customers. KUB maintains 1,306 miles of services mains, 75 pump stations, and 4 treatment plants to treat 12.6 billion gallons of wastewater on an annual basis. The average daily flow is 34.5 million gallons.

KUB has added approximately 1,138 wastewater system customers over the past three years, representing annual growth of less than one percent. In fiscal year 2017, 486 customers were added.

The typical residential wastewater customer's average monthly wastewater bill was \$56.50 as of June 30, 2017, representing an increase of \$3 compared to June 30, 2016. The increase in the monthly bill reflects a rate increase effective October 2016.

KUB's treatment plants continue to meet high standards of operation. KUB's Kuwahee, Eastbridge, Loves Creek, and Fourth Creek wastewater treatment plants were awarded Operational Excellence awards from the Tennessee Kentucky Water Environment Association for having zero permit violations within the 2016 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. The Eastbridge wastewater treatment plant achieved a Platinum award for continued outstanding compliance performance over multiple years. Kuwahee, Loves Creek, and Fourth Creek wastewater treatment plants won Gold Awards for having no permit violations in 2016.

KUB continued to maintain certification with the National Biosolids Partnership following a rigorous review process and independent audit that was conducted in December 2016. (Biosolids are nutrient-rich organic matter produced by wastewater treatment and is a registered fertilizer with the Tennessee Department of Agriculture).

## Knoxville Utilities Board Wastewater Division Management's Discussion and Analysis June 30, 2017 and 2016

The Knoxville News Sentinel recognized KUB as one of Knoxville's Top Workplaces in 2017. KUB was among 30 outstanding companies selected for the award. Companies were measured on several qualities, such as company leadership, career opportunities, workplace flexibility, compensation and benefits, and the impact company policies have on innovation, productivity and morale of its workforce.

#### **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 the 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 2013, the Board extended the funding approach for Century II to include the wastewater system, although the Wastewater Division had maintained a ten-year funding plan since the inception of the federal Consent Decree (see below). The Board formally endorsed and adopted by resolution, a ten-year funding plan for the Wastewater Division, which includes a combination of rate increases and debt issues to fully fund the wastewater system's Century II program.

In April 2014, KUB management provided the Board an updated assessment of the overall condition of each utility system, including a recommendation for annual rate increases for each division for the next three fiscal years.

In June 2014, the Board approved the three annual rate increases for the Wastewater Division. The three rate increases went into effect in October 2014, October 2015, and October 2016. Each rate increase provided an additional \$4.7 million of annual sales revenue.

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 wastewater rate increases are effective July 2017, July 2018, and July 2019 and are expected to provide an additional \$4.3 million, \$4.2 million, and \$4.5 million in annual revenue, respectively, to help fund the Wastewater Division.

In fiscal year 2017, KUB rehabilitated or replaced 17.4 miles of wastewater system main, exceeding the target level of 16 miles, 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

## Knoxville Utilities Board Wastewater Division Management's Discussion and Analysis June 30, 2017 and 2016

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. The total cost of such improvements is estimated to be approximately \$120 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, 2017, the Wastewater Division had issued \$505 million in bonds to fund 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 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 99.5% of manholes and gravity mains, smoke testing 99.9% of 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 352.3 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 83 percent reduction in SSOs.

As of June 30, 2017, the Wastewater Division had completed its thirteenth full year under the Consent Decree, spending \$531.7 million on capital investments to meet Consent Decree requirements.

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#### Knoxville Utilities Board Wastewater Division Management's Discussion and Analysis June 30, 2017 and 2016

#### **Financial Highlights**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

The Division's net position during the year increased \$13.3 million compared to a \$9.5 million increase last fiscal year.

Operating revenue increased \$4.9 million or 5.8 percent, the result of additional revenue generated during the fiscal year from the rate increase effective October 2016 offset by a 0.3 percent decrease in customer billable flows.

Operating expenses increased \$0.9 million or 1.6 percent. Operating and maintenance (O&M) expenditures increased \$0.4 million or 1.3 percent. Depreciation expense rose \$0.2 million or 0.9 percent. Taxes and tax equivalents increased \$0.3 million or 5.7 percent.

Interest income was \$0.2 million higher than the prior fiscal year. Interest expense was \$0.1 million higher than the prior fiscal year. Other income (net) was \$0.2 million lower.

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 \$19.7 million or 2.9 percent since the end of last fiscal year.

During fiscal year 2017, KUB sold \$20 million in wastewater system revenue bonds for the purpose of funding wastewater system capital improvements and also sold \$12 million in wastewater system revenue refunding bonds to refinance existing wastewater system bonds at lower interest rates. The refunding produced total debt service savings of \$1.4 million over the life of the bonds (\$1.3 million on a net present value basis).

Long-term debt represented 63.7 percent of the Division's capital structure as of June 30, 2017, as compared to 64.5 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 1.79. Maximum debt service coverage was 1.78.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's net position during the year increased \$9.5 million compared to a \$7.8 million increase last fiscal year. A restatement to the fiscal year 2014's net position based on a change in method of accounting for pension expense reduced the total net position by \$0.2 million during fiscal year 2015. This change resulted in a net increase of \$7.6 million or 3 percent in the Division's net position in fiscal year 2015.

Operating revenue increased \$4.4 million or 5.6 percent, the result of additional revenue generated during the fiscal year from the rate increase effective October 2015, along with a 1.1 percent increase in wastewater sales volumes.

Operating expenses increased \$2.1 million or 4 percent. Operating and maintenance (O&M) expenditures increased \$0.6 million or 2 percent. Depreciation expense rose \$1.2 million or 7.1 percent. Taxes and tax equivalents increased \$0.2 million or 5.5 percent.

Interest income was \$0.2 million higher than the prior fiscal year. Interest expense increased \$0.8 million or 4.2 percent, reflecting additional interest expense on revenue bonds sold in fiscal year 2015. Other income (net) was \$0.3 million lower.

Capital contributions increased \$0.3 million, the result of an increase in donated assets from developers compared to the previous fiscal year.

Total plant assets (net) increased \$22.9 million or 3.4 percent since the end of last fiscal year.

Long-term debt represented 64.5 percent of the Division's capital structure as of June 30, 2016, as compared to 65.8 percent last year. The decrease is the result of 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 1.85. Maximum debt service coverage was 1.68.

#### 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)		2017		2016		2015
Current, restricted and other assets	\$	82,033	\$	80,075	\$	104,099
Capital assets, net		706,752		687,056		664,178
Deferred outflows of resources		18,332		19,413		18,593
Total assets and deferred outflows of resources		807,117		786,544	_	786,870
Current and other liabilities		21,361		22,630		19,981
Long-term debt outstanding		500,207		492,466		503,955
Deferred inflows of resources	_	1,159		333	_	1,339
Total liabilities and deferred inflows of resources		522,727		515,429	_	525,275
Net position						
Net investment in capital assets		216,334		205,784		172,144
Restricted		3,010		2,737		2,624
Unrestricted	_	65,046	_	62,594	_	86,827
Total net position	\$_	284,390	\$_	271,115	\$_	261,595

#### **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 2017 Compared to Fiscal Year 2016

Current, restricted and other assets increased \$2 million or 2.4 percent, primarily due to a \$0.8 million increase in accounts receivable, a \$0.7 million increase in other current assets, and a \$0.2 million increase in general fund cash (including cash and cash equivalents, short-term investments, and long-term investments) during the fiscal year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Current, restricted and other assets decreased \$24 million or 23.1 percent, reflecting the utilization of \$15.6 million in bond proceeds and a \$9.1 million decrease in general fund cash for the primary purpose of funding wastewater capital improvements. Operating contingency reserves increased \$1.1 million and accounts receivable increased \$0.3 million.

#### **Capital Assets**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Capital assets increased \$19.7 million or 2.9 percent, the result of capital expenditures, net of depreciation. Major capital expenditures during the year included \$30.9 million for major system improvements related to Century II.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Capital assets increased \$22.9 million or 3.4 percent, the result of capital expenditures, net of depreciation. Major capital expenditures during the year included \$32.6 million for major system improvements related to Century II (previously reported as PACE 10 expenditures), \$1.8 million for upgrades to various information systems, and \$1.3 million for the replacement and relocation of wastewater system assets to accommodate Tennessee Department of Transportation (TDOT) highway improvement projects.

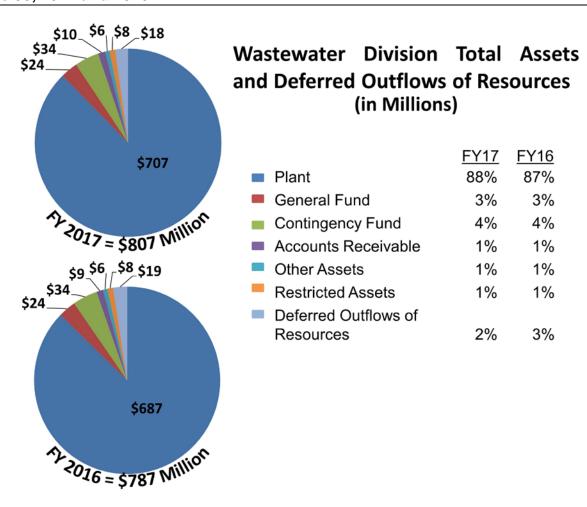
#### **Deferred Outflows of Resources**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred outflows decreased \$1.1 million compared to the prior year, reflecting a \$0.8 million decrease in unamortized bond refunding costs and a \$0.3 million decrease in pension outflow.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred outflows increased \$0.8 million compared to the prior year, reflecting a \$1.6 million increase in pension outflow and a \$0.8 million decrease in unamortized bond refunding costs.



#### **Current and Other Liabilities**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Current and other liabilities were \$1.3 million less than the prior fiscal year. This decrease was the net result of an increase of \$0.8 million in the current portion of revenue bonds offset by a \$1.1 million decrease in the actuarially determined net pension obligation and a \$0.8 million decrease in accounts payable.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Current and other liabilities were \$2.6 million more than the prior fiscal year. This increase was primarily due to a \$1.4 million increase in accounts payable and an actuarially determined net pension obligation of \$1.1 million recognized in fiscal year 2016.

#### **Long-Term Debt**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

The Division's outstanding long-term debt increased \$7.7 million or 1.6 percent. Wastewater system revenue bonds of \$20 million, sold in July 2016, added to KUB's outstanding debt. In March 2017, revenue refunding bonds of \$12 million were issued to refinance bonds sold in 2005. The additional issuances offset by the defeased bonds and scheduled debt repayments accounted for the change in long-term debt.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

The Division's outstanding long-term debt decreased \$11.5 million or 2.3 percent, primarily due to \$10.9 million of long-term bond debt that shifted to current liabilities as payable within the next year.

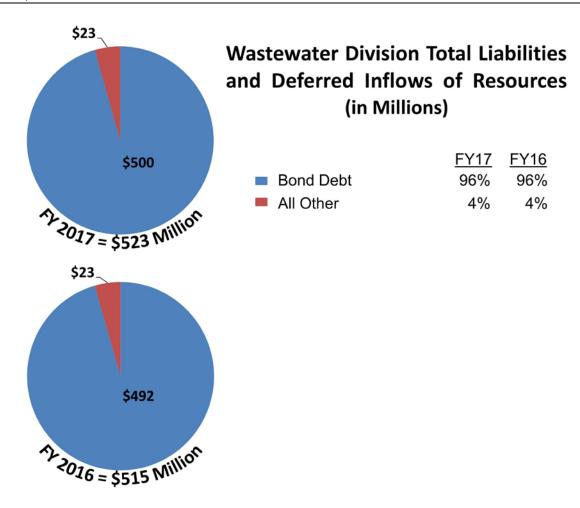
#### **Deferred Inflows of Resources**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Deferred inflows of resources were \$0.8 million higher than the prior fiscal year due to differences in pension inflows.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Deferred inflows of resources were \$1 million lower than the prior fiscal year due to differences in pension inflows.



#### **Net Position**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Net investment in capital assets increased \$10.6 million or 5.1 percent. The increase was the result of \$19.7 million in net plant additions offset by an increase in current portion of revenue bonds and total long-term debt of \$8.5 million. Unrestricted assets increased \$2.5 million, primarily due to the \$1.7 million increase in current and other assets compared to the prior year. Restricted net position was \$0.3 million higher than the previous fiscal year, primarily due to increases in bond fund reserves.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Net investment in capital assets increased \$33.6 million or 19.5 percent. The increase was the result of \$22.9 million in net plant additions and a decrease in current and long-term debt of \$11 million, reflecting the scheduled repayment of bonds. Unrestricted assets decreased \$24.2 million, primarily due to the \$24 million decrease in current and other assets compared to the prior year. Restricted net position was \$0.1 million higher than the previous 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 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)		2017		2016	2015
Operating revenues	\$	88,517	\$	83,646	\$ 79,206
Operating expenses					
Treatment		11,914		12,516	11,597
Collection		7,686		7,462	8,609
Customer service		3,073		2,962	2,837
Administrative and general		9,257		8,572	7,846
Depreciation		18,517		18,343	17,131
Taxes and tax equivalents		4,796	_	4,537	4,301
Total operating expenses		55,243		54,392	52,321
Operating income		33,274	_	29,254	26,885
Interest income		642		462	301
Interest expense		(20,233)		(20, 169)	(19,355)
Other income/(expense)	_	(872)	_	(717)	(433)
Change in net position before capital contributions	_	12,811	_	8,830	7,398
Capital contributions	_	464	_	690	358
Change in net position	\$	13,275	\$	9,520	\$ 7,756

## 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 2017 Compared to Fiscal Year 2016

The Division's net position during the year increased \$13.3 million compared to a \$9.5 million increase last fiscal year.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

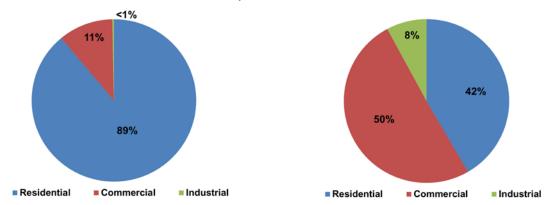
The Division's net position during the year increased \$9.5 million compared to a \$7.8 million increase last fiscal year. A restatement to fiscal year 2014's net position based on a change in method of accounting for pension expense reduced the total net position by \$0.2 million during fiscal year 2015.

#### **Margin from Sales**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Operating revenue increased \$4.9 million or 5.8 percent for the fiscal year ending June 30, 2017, the result of additional revenue generated during the fiscal year from the October 2016 rate increase offset by a 0.3 percent decrease in customer billable 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 2017.

FY 2017 Total Wastewater Customers = 70,751 FY 2017 Wastewater Sales = 6.5 Billion Gallons



Residential customers accounted for 89 percent of wastewater customers and 42 percent of total billed sales volumes for the year. Commercial customers accounted for the largest portion of total sales volumes for the year with 50 percent.

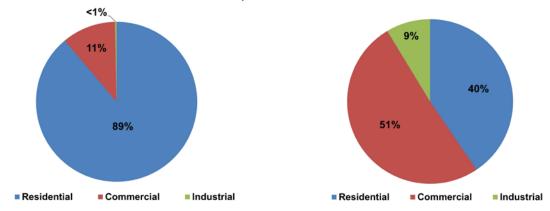
KUB's ten largest wastewater customers accounted for 18 percent of KUB's billed wastewater volumes. Those ten customers represent four industrial and six commercial customers, including four governmental customers.

KUB has added 1,138 wastewater customers over the past three years, representing annual growth of less than one percent.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Operating revenue increased \$4.4 million or 5.6 percent for the fiscal year ending June 30, 2016, the result of additional revenue generated during the fiscal year from the October 2015 rate increase as well as a 1.1 percent increase in wastewater sales volumes. 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 2016.

FY 2016 Total Wastewater Customers = 70,265 FY 2016 Wastewater Sales = 6.5 Billion Gallons



Residential customers accounted for 89 percent of wastewater customers and 40 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 11.1 percent of KUB's billed wastewater volumes. Those ten customers represent five industrial and five commercial customers, including four governmental customers.

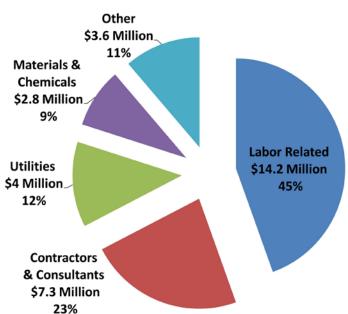
KUB has added 737 wastewater customers over the past three years, representing annual growth of less than one percent.

#### **Operating Expenses**

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Operating expenses increased \$0.9 million or 1.6 percent compared to fiscal year 2016. 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 \$0.6 million, primarily due to lower outside consultant and contractor expenses.
- Collection system expenses increased \$0.2 million, reflecting higher outside contractor expenses for Century II initiatives.
- Customer service expenses increased \$0.1 million.
- Administrative and general expenses increased \$0.7 million, primarily due to an increase in labor related expenses.



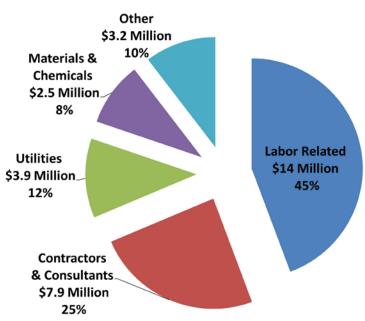
FY 2017 Wastewater O&M Expense = \$31.9 Million

- Depreciation expense increased \$0.2 million or 0.9 percent, the result of a full year of depreciation on \$53.6 million of wastewater system assets placed in service during fiscal year 2016 and a partial year of depreciation of \$51.7 million of wastewater system assets placed in service during fiscal year 2017. \$11 million of wastewater system assets 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 2016 Compared to Fiscal Year 2015

Operating expenses increased \$2.1 million or 4 percent compared to fiscal year 2015. 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.

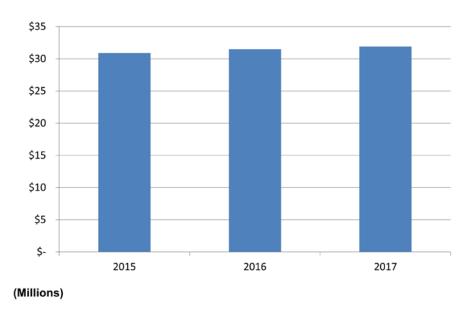
- Treatment expenses were up \$0.9 million, primarily due to higher outside contractor expenses.
- Collection system expenses decreased \$1.1 million, reflecting lower outside contractor expenses for Century II initiatives.
- Customer service expenses increased \$0.1 million.
- Administrative and general expenses increased \$0.7 million, primarily due to an increase in pension expense.



### FY 2016 Wastewater O&M Expense = \$31.5 Million

- Depreciation expense increased \$1.2 million or 7.1 percent, the result of a full year of depreciation on \$16.2 million of wastewater system assets placed in service during fiscal year 2015 and a partial year of depreciation of \$53.6 million of wastewater system assets placed in service during fiscal year 2016. \$12.1 million of wastewater system assets 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.

### **Wastewater Division Operation & Maintenance Expense**



#### Other Income and Expense

#### Fiscal Year 2017 Compared to Fiscal Year 2016

Interest income was \$0.2 million higher than the prior fiscal year.

Interest expense was \$0.1 million higher than the prior fiscal year.

Other income (net) was \$0.2 million lower, primarily due to an increase in miscellaneous income deductions.

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.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

Interest income was \$0.2 million higher than the prior fiscal year.

Interest expense increased \$0.8 million or 4.2 percent, the net effect of interest expense associated with bonds issued in fiscal year 2015 offset by debt interest savings from refinancing outstanding bonds at lower interest rates.

Other income (net) was \$0.3 million lower, primarily due to a loss on disposition of wastewater system assets.

Capital contributions increased \$0.3 million compared to last fiscal year as a result of additional assets received from developers and other governmental entities.

## **Capital Assets**

### Capital Assets As of June 30 (Net of Depreciation)

(in thousands of dollars)		2017		2016		2015
Pumping & Treatment Plant Collection Plant	\$	148,916	\$	144,383	\$	135,248
Mains and Metering		445,740		416,102		390,454
Other Accounts		68,745		70,145	_	71,708
Total Collection Plant		514,485		486,247		462,162
Total General Plant		8,660	_	8,480	_	8,101
<b>Total Wastewater Plant</b>	\$	672,061	\$	639,110	\$	605,511
Work In Progress		34,691		47,946	_	58,667
Total Net Plant	\$_	706,752	\$	687,056	\$	664,178

#### Fiscal Year 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$706.8 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 \$19.7 million or 2.9 percent over the end of the last fiscal year.

FY 2017 Wastewater Division Capital Assets = \$706.8 Million (in Millions)
\$34.7 \$8.7

\$148.9

\$514.5

Collection System = 73%

Work in Progress = 5%

Pumping & Treatment = 21%

General Plant = 1%

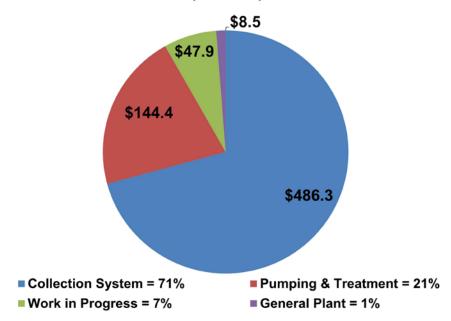
Major capital asset expenditures during the year were as follows:

- \$30.9 million related to Century II projects
  - \$12.4 million for wastewater treatment plant upgrades
  - \$10.6 million for sewer trunk line rehabilitation and replacement
  - \$5.3 million for sewer mini-basin rehabilitation and replacement
  - \$2.6 million for pump station construction and improvements

#### Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$687.1 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 \$22.9 million or 3.4 percent over the end of the last fiscal year.

FY 2016 Wastewater Division Capital Assets = \$687.1 Million (in Millions)



Major capital asset expenditures during the year were as follows:

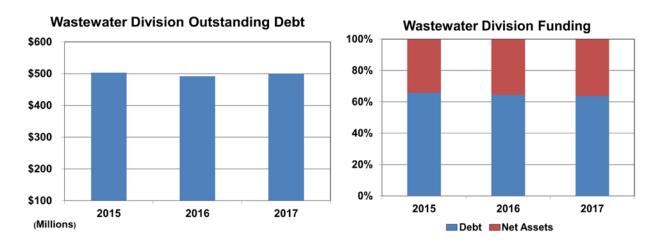
- \$32.6 million related to Century II projects
  - \$15.8 million for sewer mini-basin rehabilitation and replacement
  - \$7.7 million for sewer trunk line rehabilitation and replacement
  - \$5.3 million for pump station design and construction
  - \$3.8 million for wastewater treatment plant upgrades
- \$1.8 million for upgrades to various information systems
- \$1.3 million for replacement and relocation of wastewater system assets to accommodate TDOT highway improvement projects

#### **Debt Administration**

As of June 30, 2017, the Wastewater Division had \$499.9 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 63.7 percent in 2017, 64.5 percent in 2016, and 65.8 percent at the end of fiscal year 2015. 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)		2017		017 2016		2015
Revenue bonds Total outstanding debt	\$_	499,850	\$_	492,330	\$	503,260
	\$_	499,850	\$_	492,330	\$	503,260



The Division will pay \$137 million in principal payments over the next ten years, representing 27.4 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 2017 Compared to Fiscal Year 2016

As of June 30, 2017, the Division had \$499.9 million in outstanding debt (including the current portion of revenue bonds), representing an increase of \$7.5 million or 1.5 percent. The increase is attributable to the net effect of new revenue and refunding bond issues. The Division's weighted average cost of debt as of June 30, 2017 was 3.99 percent (3.64 percent including the impact of Build America Bonds rebates).

KUB sold \$20 million in wastewater system revenue bonds in July 2016 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 2.72 percent.

KUB sold \$12 million in wastewater system revenue refunding bonds in March 2017 for the purpose of refinancing existing wastewater system bonds at lower interest rates. KUB will realize a total debt service

savings of \$1.4 million over the life of the bonds (\$1.3 million on a net present value basis). The true interest cost of the bonds, which were sold through a competitive bidding process, was 1.95 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2017, the Division's revenue bonds were rated AA+ by Standard & Poor's and Aa2 by Moody's Investors Service.

#### Fiscal Year 2016 Compared to Fiscal Year 2015

As of June 30, 2016, the Division had \$492.3 million in outstanding debt (including the current portion of revenue bonds), representing a decrease of \$11 million or 2.2 percent. The decrease is attributable to the scheduled repayments of bond debt. The Division's weighted average cost of debt as of June 30, 2016 was 4.03 percent.

The Division's outstanding debt is rated by Standard & Poor's and Moody's Investors Service. As of June 30, 2016, 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 200 wastewater customers in fiscal year 2018.

In June 2017, the KUB Board adopted the next three years of rate increases for all four Divisions to help fund the ongoing Century II infrastructure programs for each system. The approved wastewater rate increases are effective July 2017, July 2018, and July 2019 and are expected to provide an additional \$4.3 million, \$4.2 million, and \$4.5 million, respectively, in annual revenue to help fund the Wastewater Division.

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 long-term debt includes \$93.1 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 6.9 percent. Any future actions by Congress may also affect the anticipated rebates for future fiscal years.

GASB No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 83, Certain Asset Retirement Obligations, is effective for fiscal years beginning after June 15, 2018. GASB Statement No. 84, Fiduciary Activities, is effective for fiscal years beginning after December 15, 2018. GASB Statement No. 85, Omnibus 2017, and GASB Statement No. 86, Certain Debt Extinguishment Issues, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 87, Leases, is effective for fiscal years beginning after December 15, 2019. 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 2017.

#### **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, 2017 and 2016. 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, 2017 and 2016

		2017		2016
Assets and Deferred Outflows of Resources				
Current assets:				
Cash and cash equivalents	\$	18,973,860	\$	23,725,645
Short-term investments		4,982,900		-
Short-term contingency fund investments		14,559,854		10,857,109
Other current assets		699,213		45,463
Accrued interest receivable		20,406		10,171
Accounts receivable, less allowance of uncollectible accounts				
of \$82,667 in 2017 and \$106,528 in 2016		9,933,764		9,176,445
Inventories		336,145		314,034
Prepaid expenses		78,703		85,397
Total current assets		49,584,845		44,214,264
Post of Lorent				
Restricted assets:		7 000 040		7 000 004
Wastewater bond fund		7,909,840		7,696,384
Other funds		6,915		4,712
TVA contract proceeds		74,619		<u>-</u>
Total restricted assets		7,991,374		7,701,096
Wastewater plant in service		853,154,323		812,426,671
Less accumulated depreciation		(181,093,401)		(173,316,844)
Less accumulated depreciation	-	672,060,922	•	639,109,827
Retirement in progress		185,548		185,012
Construction in progress		34,505,477		47,761,132
Net plant in service		706,751,947	•	687,055,971
Net plant in service	-	700,751,947	•	007,000,971
Other assets:				
Long-term contingency fund investments		19,229,072		23,110,075
Other		5,227,545		5,049,594
Total other assets	-	24,456,617	•	28,159,669
Total assets	•	788,784,783	•	767,131,000
	•	· · · · · · · · · · · · · · · · · · ·	•	<del></del> -
Deferred outflows of resources:				
Pension outflow		1,999,978		2,278,604
Unamortized bond refunding costs		16,331,740		17,134,459
Total deferred outflows of resources	-	18,331,718		19,413,063
Total assets and deferred outflows of resources	\$	807,116,501	\$	786,544,063

## Knoxville Utilities Board Wastewater Division Statements of Net Position June 30, 2017 and 2016

	2017		2016
Liabilities, Deferred Inflows, and Net Position			
Current liabilities:			
Current portion of revenue bonds	\$ 11,710	,000 \$	10,930,000
Accounts payable	1,522	,921	2,340,915
Accrued expenses	764	,678	716,125
Customer deposits plus accrued interest		,927	917,734
Accrued interest on revenue bonds	4,982		4,963,784
Total current liabilities	19,799		19,868,558
Other liabilities:			
Accrued compensated absences	1,507	,005	1,584,302
Net pension liability		,450	1,108,835
Other	40	,081	67,881
Total other liabilities	1,560	,536	2,761,018
Long-term debt:			
Wastewater revenue bonds	488,140	,000	481,400,000
Unamortized premiums/discounts	12,067	,331_	11,066,224
Total long-term debt	500,207	,331	492,466,224
Total liabilities	521,567	,633	515,095,800
Deferred inflows of resources:			
Pension inflow	1,158	,854_	332,699
Total deferred inflows of resources	1,158	,854	332,699
Total liabilities and deferred inflows of resources	522,726	,487	515,428,499
Net position			
Net investment in capital assets	216,334	,381	205,783,783
Restricted for:			
Debt service	2,927	,600	2,732,600
Other		,534	4,712
Unrestricted	65,046	,499	62,594,469
Total net position	284,390	,014	271,115,564
Total liabilities, deferred inflows, and net position	\$ 807,116	<u>,501</u> \$	786,544,063

## Knoxville Utilities Board Wastewater Division Statements of Revenues, Expenses and Changes in Net Position Years Ended June 30, 2017 and 2016

		2017		2016
Operating revenues	\$_	88,517,210	\$_	83,645,509
Operating expenses				
Treatment		11,914,383		12,515,728
Collection		7,686,373		7,462,333
Customer service		3,072,606		2,961,518
Administrative and general		9,257,078		8,571,620
Provision for depreciation		18,517,403		18,342,674
Taxes and tax equivalents	_	4,795,532	_	4,537,378
Total operating expenses	_	55,243,375	_	54,391,251
Operating income	_	33,273,835	_	29,254,258
Non-operating revenues (expenses)				
Contributions in aid of construction		723,825		652,525
Interest and dividend income		641,747		461,544
Interest expense		(20,232,835)		(20,168,993)
Amortization of debt costs		(443,847)		(473,327)
Write-down of plant for costs recovered through contributions		(723,825)		(652,525)
Other	_	(428,234)	_	(243,304)
Total non-operating revenues (expenses)	_	(20,463,169)	_	(20,424,080)
Change in net position before capital contributions		12,810,666		8,830,178
Capital contributions	_	463,784	_	690,682
Change in net position		13,274,450		9,520,860
Net position, beginning of year	_	271,115,564	-	261,594,704
Net position, end of year	\$_	284,390,014	\$_	271,115,564

## Knoxville Utilities Board Wastewater Division Statements of Cash Flows Years Ended June 30, 2017 and 2016

		2017		2016
Cash flows from operating activities:	Ф	05 400 054	ф	00 057 704
Cash receipts from customers	\$	85,189,254	\$	80,657,704
Cash (payments to suppliers of goods or contact		1,434,648		2,243,560
Cash payments to suppliers of goods or services		(21,876,100)		(19,375,607)
Cash payments to employees for services		(11,144,919)		(11,216,903)
Payment in lieu of taxes	-	(4,017,388)		(3,789,989)
Net cash provided by operating activities	-	49,585,495		48,518,765
Cash flows from capital and related financing activities:				
Net proceeds from bond issuance		33,146,531		-
Principal paid on revenue bonds and notes payable		(24,445,000)		(10,930,000)
(Increase) decrease in unused bond proceeds		-		15,605,921
Interest paid on revenue bonds and notes payable		(20,214,379)		(19,687,582)
Acquisition and construction of wastewater plant		(38,745,442)		(41,981,738)
Changes in wastewater bond fund, restricted		(213,456)		(599,366)
Proceeds received on disposal of plant		12,004		17,546
Cash received from developers and individuals for capital purposes		723,825		652,525
Net cash used in capital and related financing activities		(49,735,917)		(56,922,694)
Cook flows from in water and ities.				
Cash flows from investing activities:		(45.007.007)		(4.450.050)
Purchase of investment securities		(15,807,997)		(1,458,958)
Maturities of investment securities		10,832,597		455,690
Interest received		595,577		458,527
Other property and investments	-	(221,540)		(178,955)
Net cash used in investing activities	-	(4,601,363)		(723,696)
Net increase (decrease) in cash and cash equivalents		(4,751,785)		(9,127,625)
Cash and cash equivalents, beginning of year	-	23,725,645		32,853,270
Cash and cash equivalents, end of year	\$	18,973,860	\$	23,725,645
Reconciliation of operating income to net cash provided by operating activities				
Operating income	\$	33,273,835	\$	29,254,258
Adjustments to reconcile operating income to net cash				
provided by operating activities:				
Depreciation expense		18,777,420		18,592,426
Changes in operating assets and liabilities:		-, , -		-,,
Accounts receivable		(757,319)		(327,909)
Inventories		(22,111)		(65,202)
Prepaid expenses		6,694		(20,805)
Other assets		(730,075)		(57,354)
Accounts payable and accrued expenses		(837,342)		1,280,061
Customer deposits plus accrued interest		(97,807)		(119,522)
Other liabilities		(27,800)		(17,188)
Net cash provided by operating activities	\$	49,585,495	\$	48,518,765
Noncash capital activities:				
Acquisition of plant assets through developer contributions	\$	463,784	\$	690,682

#### 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, 2017 and 2016, 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 March 2016, the GASB issued GASB Statement No. 82 (Statement No. 82), *Pension Issues – An amendment of GASB Statements No. 67, No. 68 and No. 73.* The objective of this Statement is to address certain issues that have been raised with respect to the presentation of payroll-related measures in required supplementary information, the selection of assumptions and

treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes and the classification of payments made by employers to satisfy employee contribution obligations. Statement No. 82 is effective for fiscal years beginning after June 15, 2016.

#### **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 \$260,017 in fiscal year 2017 and \$249,752 in fiscal year 2016. 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 \$183,561 in fiscal year 2017 and \$249,369 in fiscal year 2016.

#### **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.

#### 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, 2017 and 2016 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 and 2016 are based on a December 31, 2016 and 2015 measurement date, respectively. The net pension asset is \$123,941 (Division's share \$27,267) as of June 30, 2017 and the net pension liability is \$5,040,160 (Division's share \$1,108,835) as of June 30, 2016.

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, 2017 must be based upon a plan measurement date within the prior twelve months. Therefore, KUB's measurements as of June 30, 2017 will be based on the December 31, 2016 measurement date. The total pension liability of the QEBA is \$185,077 (Division's share \$40,717) as of June 30, 2017.

The total pension liability is \$61,136 (Division's share \$13,450) as of June 30, 2017 and \$5,040,160 (Division's share \$1,108,835) as of June 30, 2016.

#### Investments

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

## Knoxville Utilities Board Wastewater Division Notes to Financial Statements

June 30, 2017 and 2016

#### **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 differences between expected and actual experience in accordance with Statement No. 68.

#### **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 18, 2017, the date these financial statements were issued, for items that should potentially be recognized or disclosed. KUB sold \$25 million in wastewater system revenue bonds in August 2017 for the purpose of funding wastewater system capital improvements in fiscal year 2018. The true interest cost of the bonds, which were sold through a competitive bidding process, was 3.08 percent. Debt service payments including principal and interest range from \$704,046 to \$1,315,803 with maturity in fiscal year 2047.

#### **Recently Issued Accounting Pronouncements**

In June 2015, the GASB issued GASB Statement No. 75 (Statement No. 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.* The Statement addresses reporting by governments that provide OPEB to their employees. Statement No. 75 is effective for fiscal years beginning after June 15, 2017.

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 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 March 2017, the GASB issued GASB Statement No. 85 (Statement No. 85), *Omnibus 2017*. The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. Statement No. 85 is effective for fiscal years beginning after June 15, 2017.

In May 2017, the GASB issued GASB Statement No. 86 (Statement No. 86), *Certain Debt Extinguishment Issues*. The objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt. The Statement provides guidance for transactions in which cash and other monetary assets acquired with existing resources or resources other than the proceeds of refunding debt, are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Statement No. 86 is effective for fiscal years beginning after June 15, 2017.

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.

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:

		2017		2016
Current assets				
Cash and cash equivalents	\$	18,973,860	\$	23,725,645
Short-term investments		4,982,900		-
Short-term contingency fund investments		14,559,854		10,857,109
Other assets				
Long-term contingency fund investments		19,090,029		23,006,967
Restricted assets				
Wastewater bond fund		7,909,840		7,696,384
Other funds	_	6,915	_	4,712
	\$	65,523,398	\$	65,290,817

The above amounts do not include accrued interest of \$139,043 in fiscal year 2017 and \$103,108 in fiscal year 2016. 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, 2017:

		Deposit and Fair	Inve	stment Matur Less	itie	es (in Years)
		Value		Than 1		1-5
Supersweep NOW and Other Deposits	\$ _	16,997,966	\$	16,997,966	\$	-
State Treasurer's Investment Pool		-		-		-
Agency Bonds		40,047,683		18,460,379		21,587,304
Certificates of Deposits		8,992,115	_	8,992,115	_	-
:	\$_	66,037,764	\$	44,450,460	\$	21,587,304

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, 2017:

U.S. Agency bonds of \$21,587,304, 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:

	2017	2016
Wholesale and retail customers		
Billed services	\$ 5,733,191	\$ 5,053,928
Unbilled services	3,595,200	3,529,053
Other	688,040	699,992
Allowance for uncollectible accounts	(82,667)	(106,528)
	\$ 9,933,764	\$ 9,176,445

### 5. Accounts Payable and Accruals

Accounts payable and accruals were composed of the following:

2017		2016
\$ 1,522,921	\$	2,340,915
348,485		330,469
 416,193		385,656
\$ 2,287,599	\$	3,057,040
·	\$ 1,522,921 348,485 416,193	\$ 1,522,921 \$ 348,485 416,193

## 6. Long-Term Obligations

Long-term debt consists of the following:

	Balance June 30, 2016		Additions	Payments	Defeased	Balance June 30, 2017		Amounts Due Within One Year
2005B - 3.0 - 5.0% \$	14,635,000	\$	-	\$ 1,470,000	\$ 13,165,000	\$ -	\$	-
2008 - 4.0 - 6.0%	6,550,000		=	4,600,000	-	1,950,000		1,950,000
2010 - 6.3 - 6.5%	30,000,000		-	-	-	30,000,000		-
2010C - 1.18 - 6.1%	64,500,000		=	1,400,000	-	63,100,000		1,500,000
2012A - 2.0 - 4.0%	14,595,000		=	840,000	-	13,755,000		985,000
2012B - 1.25 - 5.0%	62,350,000		=	975,000	-	61,375,000		1,000,000
2013A - 2.0 - 4.0%	111,715,000		-	620,000	-	111,095,000		635,000
2014A - 2.0 - 4.0%	29,200,000		-	450,000	-	28,750,000		475,000
2015A - 3.0 - 5.0%	129,360,000		-	125,000	-	129,235,000		2,835,000
2015B - 3.0 - 5.0%	29,425,000		=	450,000	-	28,975,000		475,000
2016 - 2.0 - 5.0%	-		20,000,000	350,000	-	19,650,000		450,000
2017A - 3.0 - 5.0%		_	11,965,000	 -	 -	 11,965,000	_	1,405,000
Total bonds \$	492,330,000	\$	31,965,000	\$ 11,280,000	\$ 13,165,000	\$ 499,850,000	\$	11,710,000
Unamortized Premium	11,066,224		1,684,616	600,100	 83,409	 12,067,331	_	-
Total long term debt \$	503,396,224	\$	33,649,616	\$ 11,880,100	\$ 13,248,409	\$ 511,917,331	\$	11,710,000

	Balance June 30, 2015	Additions	Payments	Defeased	Balance June 30, 2016	Amounts Due Within One Year
2005B - 3.0 - 5.0% \$	16,045,000	\$ -	\$ 1,410,000	\$ -	\$ 14,635,000	\$ 1,470,000
2008 - 4.0 - 6.0%	11,000,000	-	4,450,000	-	6,550,000	4,600,000
2010 - 6.3 - 6.5%	30,000,000	-	=	-	30,000,000	-
2010C - 1.18 - 6.1%	65,750,000	-	1,250,000	-	64,500,000	1,400,000
2012A - 2.0 - 4.0%	15,415,000	-	820,000	-	14,595,000	840,000
2012B - 1.25 - 5.0%	63,275,000	-	925,000	-	62,350,000	975,000
2013A - 2.0 - 4.0%	112,325,000	-	610,000	-	111,715,000	620,000
2014A - 2.0 - 4.0%	29,625,000	-	425,000	-	29,200,000	450,000
2015A - 3.0 - 5.0%	129,825,000	-	465,000	-	129,360,000	125,000
2015B - 3.0 - 5.0%	30,000,000		575,000	-	29,425,000	450,000
Total bonds \$	503,260,000	\$ -	\$ 10,930,000	\$ -	\$ 492,330,000	\$ 10,930,000
Unamortized Premium	11,625,190		 558,966	 -	 11,066,224	-
Total long term debt \$	514,885,190	\$	\$ 11,488,966	\$ =	\$ 503,396,224	\$ 10,930,000

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

Fiscal			T	ota	I	Grand
Year			Principal		Interest	Total
2018		\$	11,710,000	\$	19,956,308	\$ 31,666,308
2019			12,125,000		19,491,971	31,616,971
2020			12,665,000		18,979,790	31,644,790
2021			13,185,000		18,449,170	31,634,170
2022			13,775,000		17,832,065	31,607,065
2023-2027			73,575,000		80,108,451	153,683,451
2028-2032			82,225,000		66,228,309	148,453,309
2033-2037			98,590,000		50,047,251	148,637,251
2038-2042			110,350,000		29,588,670	139,938,670
2043-2047			63,825,000		8,740,825	72,565,825
2048-2050		_	7,825,000		552,150	8,377,150
	Total	\$_	499,850,000	\$	329,974,960	\$ 829,824,960

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, 2017, those bond covenants had been satisfied.

During fiscal year 2006, KUB's Wastewater Division issued Series 2005B bonds in part to retire certain existing debt and fund wastewater system capital improvements. Concurrent with the issuance of these bonds, KUB transferred funds to an irrevocable trust to pay a portion of the Series 1998 bonds and Series 2001A bonds, as such amounts mature.

During fiscal year 2009, KUB's Wastewater Division issued Series 2008 bonds to fund wastewater system capital improvements.

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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. Effective October 1, 2016 these bonds became subject to a 6.9 percent 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.

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. Effective October 1, 2016 these bonds became subject to a 6.9 percent 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.

During fiscal year 2012, KUB's Wastewater Division issued Series 2012A bonds to retire Series 2004A bonds.

During fiscal year 2013, KUB's Wastewater Division issued Series 2012B bonds to fund wastewater system capital improvements. KUB's Wastewater Division also issued Series 2013A bonds to retire a portion of outstanding Series 2005A bonds.

During fiscal year 2015, KUB's Wastewater Division issued Series 2015A bonds to retire a portion of outstanding Series 2005A, Series 2007, and Series 2008 bonds. KUB's Wastewater Division also issued Series 2014A and Series 2015B bonds to fund wastewater system capital improvements.

During fiscal year 2017, KUB's Wastewater Division issued Series 2016 bonds to fund wastewater system capital improvements. KUB's Wastewater Division also issued Series 2017A bonds to retire outstanding Series 2005B bonds as follows. On April 7, 2017, \$12 million in revenue refunding bonds with an average interest rate of 4.4 percent were issued to currently refund \$13.2 million of outstanding bonds with an average interest rate of 4.3 percent. The net proceeds of \$13.2 million (after payment of \$0.1 million in issuance costs plus premium of \$1.3 million) were used to refund the bonds. As a result, the bonds are considered to be refunded and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments over the next 10 years by \$1.4 million resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$1.3 million.

In current and prior years, certain revenue bonds were defeased by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the liability for the defeased bonds, \$15.7 million at June 30, 2017, and the trust account assets are not included in the financial statements.

Other liabilities consist of the following:

		Balance June 30,						Balance June 30,
		2016		Increase		Decrease		2017
Accrued compensated								
absences	\$	1,584,302	\$	2,802,419	\$	(2,879,716)	\$	1,507,005
Other		67,881		75,785		(103,585)		40,081
	\$	1,652,183	\$_	2,878,204	\$_	(2,983,301)	\$_	1,547,086
		Balance June 30, 2015		Increase		Decrease		Balance June 30, 2016
Accrued compensated								
absences	\$	1,661,822	\$	3,192,415	\$	(3,269,935)	\$	1,584,302
Customer advances for construction		306,000		-		(306,000)		-
Other		85,069		143,427		(160,615)	_	67,881
	-							

### 7. Lease Commitments

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

2018	\$ 12,754
2019	7,565
2020	 2,282
Total operating minimum lease payments	\$ 22,601

#### 8. Capital Assets

Capital asset activity was as follows:

		Balance June 30, 2016		Increase	Decrease	Balance June 30, 2017
Pumping & Treatment Plant Collection Plant	\$	219,766,603	\$	9,868,174	\$ (2,605,238)	\$ 227,029,539
Mains and Metering		483,684,427		39,595,263	(6,833,516)	516,446,174
Other Accounts		80,385,881		31,266	(62,431)	80,354,716
Total Collection Plant	\$	564,070,308	\$	39,626,529	\$ (6,895,947)	\$ 596,800,890
Total General Plant		28,589,760		2,244,371	(1,510,237)	29,323,894
Total Wastewater Plant	\$	812,426,671	\$	51,739,074	\$ (11,011,422)	\$ 853,154,323
Less accumulated depreciation		(173,316,844)		(18,784,879)	11,008,322	(181,093,401)
Net Plant Assets	\$	639,109,827	\$	32,954,195	\$ (3,100)	\$ 672,060,922
Work In Progress		47,946,144		38,244,076	(51,499,195)	34,691,025
Total Net Plant	\$	687,055,971	\$	71,198,271	\$ (51,502,295)	\$ 706,751,947
		Balance				Balance
		Balance June 30, 2015		Increase	Decrease	Balance June 30, 2016
Pumping & Treatment Plant Collection Plant	\$		\$	Increase 14,986,965	\$ <b>Decrease</b> (1,850,766)	\$ 
. •	\$	June 30, 2015	\$		\$	\$ June 30, 2016
Collection Plant	\$	June 30, 2015 206,630,404	\$	14,986,965	\$ (1,850,766)	\$ June 30, 2016 219,766,603
Collection Plant Mains and Metering	\$	June 30, 2015 206,630,404 457,776,419	\$	14,986,965 35,573,089	\$ (1,850,766) (9,665,081)	June 30, 2016 219,766,603 483,684,427
Collection Plant Mains and Metering Other Accounts	,	June 30, 2015 206,630,404 457,776,419 80,547,995 538,324,414	•	14,986,965 35,573,089 3,357 35,576,446	(1,850,766) (9,665,081) (165,471) (9,830,552)	June 30, 2016 219,766,603 483,684,427 80,385,881 564,070,308
Collection Plant Mains and Metering Other Accounts Total Collection Plant	,	June 30, 2015 206,630,404 457,776,419 80,547,995	•	14,986,965 35,573,089 3,357	(1,850,766) (9,665,081) (165,471)	June 30, 2016 219,766,603 483,684,427 80,385,881
Collection Plant Mains and Metering Other Accounts Total Collection Plant  Total General Plant	\$	June 30, 2015  206,630,404  457,776,419 80,547,995 538,324,414  25,947,889 770,902,707  (165,391,520)	\$	14,986,965 35,573,089 3,357 35,576,446 2,975,604 53,539,015 (18,624,856)	\$ (1,850,766) (9,665,081) (165,471) (9,830,552) (333,733) (12,015,051) 10,699,532	\$ June 30, 2016 219,766,603 483,684,427 80,385,881 564,070,308 28,589,760 812,426,671 (173,316,844)
Collection Plant Mains and Metering Other Accounts Total Collection Plant  Total General Plant Total Wastewater Plant	\$	June 30, 2015  206,630,404  457,776,419  80,547,995  538,324,414  25,947,889  770,902,707	\$	14,986,965 35,573,089 3,357 35,576,446 2,975,604 53,539,015	\$ (1,850,766) (9,665,081) (165,471) (9,830,552) (333,733) (12,015,051)	\$ June 30, 2016 219,766,603 483,684,427 80,385,881 564,070,308 28,589,760 812,426,671
Collection Plant Mains and Metering Other Accounts Total Collection Plant  Total General Plant Total Wastewater Plant Less accumulated depreciation	\$	June 30, 2015  206,630,404  457,776,419 80,547,995 538,324,414  25,947,889 770,902,707  (165,391,520)	\$	14,986,965 35,573,089 3,357 35,576,446 2,975,604 53,539,015 (18,624,856)	\$ (1,850,766) (9,665,081) (165,471) (9,830,552) (333,733) (12,015,051) 10,699,532	\$ June 30, 2016 219,766,603 483,684,427 80,385,881 564,070,308 28,589,760 812,426,671 (173,316,844)

#### 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, 2017 and June 30, 2016, the

amount of these liabilities was \$416,193 and \$385,656, respectively, resulting from the following changes:

	2017		2016
Balance, beginning of year	\$ 385,656	\$	356,666
Current year claims and changes in estimates	3,522,910		3,104,281
Claims payments	 (3,492,373)	_	(3,075,291)
Balance, end of year	\$ 416,193	\$_	385,656

## 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 The Plan is a single-employer contributory, defined benefit pension plan established by Knoxville Utilities Board ("KUB") 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 to accrue benefits under the Plan.

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

	2016	2015
Inactive plan members:		
Terminated vested participants	43	39
Retirees and beneficiaries	605	628
Active plan members	<u>662</u>	<u>692</u>
Total	<u>1,310</u>	<u>1,359</u>

#### **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 address the loss 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, 2016:

Asset Class	Target Allocation
Domestic equity – large cap	20% - 50%
Domestic equity – mid cap	0% - 15%
Domestic equity – small cap	0% - 15%

## **Knoxville Utilities Board Wastewater Division Notes to Financial Statements**

## June 30, 2017 and 2016

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 \$4,816,913 and \$5,669,380 for 2015 and 2014, respectively, were made during KUB's fiscal years ending June 30, 2017 and 2016, respectively. Of these amounts, \$1,059,721 and \$1,247,264 are attributable to the Wastewater Division. The fiscal year 2017 contribution was determined as part of the January 1, 2015 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. The actuarial valuation for the Plan year ending December 31, 2016 resulted in an actuarially determined contribution of \$3,756,283 for the fiscal year ending June 30, 2018, based on the Plan's current funding policy. The Wastewater Division's portion of this contribution is \$826,382.

Subsequent to June 30, 2017, the actuarial valuation for the Plan year ending December 31, 2017 was completed. The actuarial valuation resulted in an actuarially determined contribution of \$3,156,661 for the fiscal year ending June 30, 2019, based on the Plan's current funding policy. The Wastewater Division's portion of this contribution is \$694,465. For the Plan year ending December 31, 2017, the Plan's actuarial funded ratio was 105.44 percent.

The actuarial valuations for the Plan years ending December 31, 2016 and 2017, which determine the actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

#### **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, 2017 and 2016 will be based on the December 31, 2016 and 2015 measurement date, respectively. The division's share of the net pension asset at June 30, 2017 is \$27,267 and the net pension liability at June 30, 2016 is \$1,108,835.

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

	2016	2015
Total pension liability	\$ 204,390,738 \$	204,502,350
Plan fiduciary net position	(204,514,679)	(199,462,190)
Plan's net pension (asset) liability	\$ (123,941) \$	5,040,160
Plan fiduciary net position as a percentage of the		
total pension liability	100.06%	97.54%

Changes in Net Pension Liability are as follows:

	Increase					
	(Decrease)					
	Т	otal Pension	Ρ	lan Fiduciary	1	Net Pension
		Liability		Net Position	Lia	ability (Asset)
		(a)		(b)		(a) - (b)
Balances at December 31, 2015	\$	204,502,350	\$	199,462,190	\$	5,040,160
Changes for the year:						
Service cost		4,226,985		-		4,226,985
Interest		14,966,559		-		14,966,559
Differences between Expected						
and Actual Experience		(2,233,762)		-		(2,233,762)
Changes of Assumptions		(2,932,883)		-		(2,932,883)
Contributions - employer		-		5,243,146		(5,243,146)
Contributions - rollovers		-		549,781		(549,781)
Contributions - member		-		5,294		(5,294)
Net investment income		-		13,834,111		(13,834,111)
Benefit payments		(14,138,511)		(14,138,511)		-
Administrative expense		-		(441,332)		441,332
Net changes		(111,612)		5,052,489		(5,164,101)
Balances at December 31, 2016	\$	204,390,738	\$	204,514,679	\$	(123,941)

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 27 years remaining as of January 1, 2014 and 26 years remaining as of January 1, 2015
Discount rate	7.5%
Salary increase	From 2.80% to 5.15% for January 1, 2014 and January 1, 2015, 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 December 31, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013.

The long-term expected rate of return on Plan investments was determined using a buildingblock 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, 2016 and 2015 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	2016	2015			
Domestic equity	5.6%	7.2%			
Non-U.S. equity	7.2%	7.4%			
Real estate equity	6.3%	6.5%			
Debt securities	1.6%	3.7%			
Cash and deposits	0.6%	2.6%			

#### Discount rate

The discount rate used to measure the total pension liability was 7.5 percent as of January 1, 2016 and 2015. 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, 2016, 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				1% Increase (8.5%)	
Plan's net pension liability	\$	16,434,925	\$	(123,941) \$	(14,585,088)	

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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, 2017, KUB recognized pension expense of \$4,674,543 (Division's share \$1,028,399).

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, 2015, this average was 5.00 years. During the measurement year, there was an experience gain of \$2,233,762 with \$446,752 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$1,787,010 (Division's share \$393,142). Unrecognized experience gains from prior periods were \$1,512,267 of which \$378,067 was recognized as a reduction in pension expense in the current year and resulted in a deferred inflow of \$1,134,200 (Division's share \$249,524).

During the measurement year, there were no benefit changes. There was a gain due to assumption changes of \$2,932,884 with \$586,577 of that recognized in the current year and in each of the next four years, resulting in a deferred inflow of \$2,346,307 (Division's share \$516,188).

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 \$802,197. \$160,439 of that loss 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 \$7,522,599 of which \$1,482,006 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment losses this year along with the net unrecognized investment losses from prior periods results in a deferred outflow of resources as of December 31, 2016 of \$6,682,351 (Division's share \$1,470,117). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,408,459 (Division's share \$529,861) at June 30, 2017 for employer contributions made between December 31, 2016 and June 30, 2017.

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	Deferred Outflows of Resources		 erred Inflows Resources
Differences between expected and actual			
experience	\$	-	\$ 2,921,210
Changes in assumptions		-	2,346,307
Net difference between projected and actual			
earnings on pension plan investments		6,682,351	-
Contributions subsequent to measurement date		2,408,459	 
Total	\$	9,090,810	\$ 5,267,517
Division's share	\$	1,999,978	\$ 1,158,854

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

Year ended June	30:
2018 \$	2,639,508
2019	231,049
2020	1,825,626
2021	(872,890)
Thereafter	-

For the year ended June 30, 2016, KUB recognized pension expense of \$4,665,035 (Division's share \$1,026,308).

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, 2014, this average was 5.00 years. During the measurement year, there were no assumption or benefit changes. There was an experience gain of \$1,890,334 with \$378,067 of that recognized in the current year and in each of the next four years.

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 \$15,382,915. \$3,076,583 of that loss was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized investment gains from prior periods were \$6,378,310 of which \$1,594,577 was recognized as a reduction in pension expense in the current year.

Experience gains this year created a deferred inflow of resources of \$1,512,267 (Division's share \$332,699). The combination of unrecognized investment losses this year along with unrecognized net investment gains from prior periods results in a deferred outflow of resources as of December 31, 2015 of \$7,522,599 (Division's share \$1,654,972). The table below summarizes the current balances of deferred outflows and deferred inflows of resources along with the net recognition over future years. In addition, KUB recorded a deferred outflow of resources of \$2,834,692 (Division's share \$623,632) at June 30, 2016 for employer contributions made between December 31, 2015 and June 30, 2016.

	Deferred Outflows of Resources		 erred Inflows Resources
Differences between expected and actual			
experience	\$	-	\$ 1,512,267
Changes in assumptions		-	-
Net difference between projected and actual			
earnings on pension plan investments		7,522,599	-
Contributions subsequent to measurement date		2,834,692	 <u> </u>
Total	\$	10,357,291	\$ 1,512,267
Division's share	\$	2,278,604	\$ 332,699

## 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.

There are 689 active employees eligible for the KUB Pension Plan who are potentially eligible to receive QEBA benefits. There are no inactive employees or retirees currently in the QEBA. The KUB Pension Plan was closed effective January 1, 2011, such that persons employed or reemployed 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.

#### Implementation of GASB 73

In fiscal year 2016, KUB adopted 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, 2017 will be based on the December 31, 2016 measurement date.

## **Notes to Financial Statements**

June 30, 2017 and 2016

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

	2016
Total pension liability	\$ 185,077
Deferred outflows	-
Deferred inflows	-
Net impact on Statement of Net Position	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a % of covered payroll	0.42%

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

	Increase (Decrease)		
		l Pension iability	
Balances at December 31, 2015	\$	-	
Changes for the year:			
Service cost		-	
Interest		-	
Changes of Benefits		185,077	
Differences between Expected and Actual Experience		-	
Changes of Assumptions		-	
Contributions – employer		-	
Contributions – rollovers		-	
Contributions – member		-	
Net investment income		-	
Benefit payments		-	
Net changes		185,077	
Balances at December 31, 2016	\$	185,077	

## Actuarial Assumptions

The total pension liability of the QEBA was determined by an actuarial valuation as of January 1, 2016 and projected to December 31, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Individual entry age
Asset valuation method	5-year smoothed market
Amortization method	Level dollar closed period with 25 years remaining as of January 1, 2016
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 percent

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The actuarial assumptions used in the January 1, 2016 valuation were based on the results of an actuarial experience study for the period January 1, 2009 through December 31, 2013. The actuarial assumptions for GPB lump sum benefit election and post-disability behavior were adopted effective January 1, 2016 based upon a special experience study completed in early 2016.

#### 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 3.78% at December 31, 2016.

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, 2016, calculated using the discount rate of 3.78 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 (2.78 percent) or one percent higher (4.78 percent) than the current rate:

	1%	(	Current		1%
	Decrease Discount Incr		Discount		Increase
	(2.78%)	Rate (3.78%)		(4.78%)	
QEBA's total pension liability	\$ 202,189	\$	185,077	\$	170,430

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

For the year ended June 30, 2017, KUB recognized pension expense of \$185,077 for the QEBA (Division's share \$40,717). This amount is not expected to be the same as KUB's contribution to the QEBA (\$0), but instead represents the change in the net impact on KUB's Statement of Net Position plus employer contributions.

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, 2015, this average was 5 years. During the measurement year, there were no assumption changes or experience gains or losses. The benefit change of \$0.2 million is due to the implementation of the QEBA. Benefit changes are reflected immediately in the total pension liability of the QEBA.

## 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 from 3 percent to 6 percent, depending on years of service, whether they contribute or not.

Matching contributions were previously remitted to the KUB Pension Plan (a separate defined benefit plan) in the name of the participant for employees hired prior to January 1, 2011. As of December 9, 2015, these Pension match assets moved from the KUB Pension Plan to the 401(k) Plan. Effective December 9, 2015, all matching contributions are remitted to the 401(k) Plan. The match and nonelective contributions for employees hired on or after January 1, 2011 are paid directly by KUB. KUB funded 401(k) matching contributions and nonelective contributions of \$1,963,541 (Division's share \$431,979) and \$1,739,057 (Division's share \$382,593), respectively, for the years ended June 30, 2017 and 2016.

## 13. Other Post-Employment Benefits (OPEB)

The Governmental Accounting Standards Board (GASB) established standards for the measurement, recognition, and reporting of other post-employment benefits (OPEB). OPEB includes post-employment benefits other than pension, which, for KUB, is presently limited to post-employment health care. GASB Statement No. 45 (Statement No. 45) requires the recognition of the accrued OPEB liability for the respective year, plus the disclosure of the total unfunded liability.

KUB currently provides post-employment health care benefits to 567 former employees and 580 covered dependents. The cost of coverage is shared with retirees and beneficiaries. KUB recognizes its share of the cost of post-employment health care benefits as an expense as claims are paid.

KUB amended its Group Health Plan in 1999, eliminating post-employment health care benefits for all employees hired on or after July 1, 1999. As of June 30, 2017, 334 active employees were eligible for individual and dependent coverage at separation. To qualify, the employee must meet the Rule of 80 (age plus years of service) with a minimum of 20 years of service, and be enrolled in medical coverage on their last day.

In May 2006, the State of Tennessee adopted Tennessee Code Annotated, Title 8, Chapter 50, Part 12 authorizing governmental entities to establish Trusts for the purpose of pre-funding their respective OPEB liabilities.

Although Statement No. 45 does not require pre-funding of the liability, KUB has determined that it is in the long-term economic interest of KUB and its ratepayers to establish a Trust to pre-fund KUB's OPEB liability.

Knoxville Utilities Board Other Post-Employment Benefits Trust (the "Trust") is a single-employer Other Post-Employment Benefits Plan established by the Knoxville Utilities Board (KUB) 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.

KUB makes annual contributions to the Trust at an actuarially determined rate. 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.

An actuarial valuation of KUB's Postretirement Benefit Plan was performed for the Trust as of January 1, 2014 for fiscal year June 30, 2016 and January 1, 2015 for fiscal year June 30, 2017. The following table presents the OPEB cost for the year, the amount contributed to the Trust, and changes in the net OPEB obligation for fiscal year ending June 30:

	2017	2016
a) Net OPEB Obligation/(Asset) at		
beginning of fiscal year	\$ (171,064)	\$ (174,410)
b) Annual Required Contribution (ARC)	620,015	953,221
c) Interest on Net OPEB Obligation/(Asset)	(12,830)	(13,081)
d) Adjustment to ARC	 (16,427)	 (16,427)
e) Annual OPEB Cost (b+c-d)	623,612	956,567
f) Employer Contributions	620,015	953,221
g) Net OPEB Obligation/(Asset) at	 	 
end of fiscal year (a+e-f)	\$ (167,467)	\$ (171,064)

KUB's annual OPEB cost, the percentage of annual OPEB cost contributed to the Trust, and the net OPEB obligation for fiscal year 2017 and the two preceding years were as follows:

### **Schedule of Employer Contributions**

Actuarial Valuation Date	Employer Fiscal Year	Annual Required Contribution	Fiscal Year Actual Contribution	Percentage Contributed	Net OPEB Obligation
1/1/2013	6/30/2015	3,497,372	3,497,372	100.00%	(174,410)
1/1/2014	6/30/2016	953,221	953,221	100.00%	(171,064)
1/1/2015	6/30/2017	620,015	620,015	100.00%	(167,467)

Total contributions to the OPEB Trust for the fiscal year ended June 30, 2017 were \$620,015 (Division's share \$136,403). The contribution to the Trust was consistent with the annual required contribution, as determined by the Postretirement Benefit Plan's actuarial valuation as of January 1, 2015, which was \$620,015 (Division's share \$136,403). As of June 30, 2017, the employer's OPEB obligation has been exceeded by \$167,467 (Division's share \$36,843).

The actuarial valuation for the Plan as of January 1, 2017 has been completed. The valuation determined that the Plan's actuarial accrued liability was \$45,473,686 (Division's share \$10,004,211). The actuarial value of the Plan's assets was \$48,934,219 (Division's share \$10,765,528). As a result, the Plan's unfunded actuarial accrued liability was (\$3,460,533) (Division's share (\$761,317)). The Plan's actuarial funded ratio was 108 percent. Due to the future implementation of GASB 75, the contributions made for fiscal year ending June 30, 2018 and 2019 will be the actuarially determined contribution instead of the annual required contribution and the actuarial cost method used to determine the contributions will change from the projected unit credit cost method to the entry age normal cost method. The actuarially

determined contribution for fiscal year ending June 30, 2018 and 2019 will be zero. See Required Supplementary Information for OPEB Schedule of Funding Progress.

The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution and actuarially determined contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The required schedule of funding progress immediately following the notes to the financial statements presents multi-year trend information about whether the actuarial value of Trust assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point.

Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Identification of actuarial methods and significant assumptions used to determine the annual required contribution for the fiscal year ending June 30, 2017:

I. Actuarial cost method
II. Actuarial value of assets

III. Investment return
Projected salary increases
Healthcare cost Trend:
Medicare

Non-Medicare IV. Amortization method

Remaining amortization period

Projected unit credit cost method Smoothed market value with phase-in method using a smoothing period of 5 years 7.5%, based on the expected portfolio return From 2.8% to 5.15%, based on years of service

2015 - 2030+, ranging from 4.5% to 7.27% 2015 - 2030+, ranging from 4.5% to 8.48%

Level dollar closed (30-year)

21 years

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.

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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, 2017 and 2016 are summarized as follows:

	2017	2016
City of Knoxville		
Amounts billed by the Division for utilities and		
related services	\$ 965,919	\$ 1,111,067
Payments by the Division in lieu of property tax	4,017,388	3,789,989
Payments by the Division for services provided	1,700,079	1,466,961
Other divisions of KUB		
Amounts billed to other divisions for utilities		
and related services provided	312,380	290,250
Interdivisional rental expense	313,517	306,304
Interdivisional rental income	122,211	114,197
Amounts billed to the Division by other divisions		
for utilities services provided	3,148,117	2,911,300

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

		2016		
Accounts receivable	\$	49,812	\$ 28,514	

### 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. The total cost of such improvements is estimated to be approximately \$120 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, 2017, the Wastewater Division had issued \$505 million in bonds to fund 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 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 99.5% of manholes and gravity mains, smoke testing 99.9% of 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 352.3 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 83 percent reduction in SSOs.

As of June 30, 2017, the Wastewater Division had completed its thirteenth full year under the Consent Decree, spending \$531.7 million on capital investments to meet Consent Decree requirements.

## Knoxville Utilities Board Wastewater Division Required Supplementary Information – Schedule of Funding Progress June 30, 2017 (Unaudited)

## **Other Post-Employment Benefits (OPEB)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
January 1, 2008	\$ -	\$108,329,141	\$108,329,141	0%	\$31,234,509	346.8%
January 1, 2009	14,593,487	100,726,738	86,133,251	14%	31,846,091	270.5%
January 1, 2010	21,275,643	58,475,364	37,199,721	36%	30,069,028	123.7%
January 1, 2011	40,749,815	64,289,254	23,539,439	63%	28,878,791	81.5%
January 1, 2012	37,907,357	61,603,466	23,696,109	62%	28,269,123	83.8%
January 1, 2013	38,571,803	63,341,531	24,769,728	61%	27,566,340	89.9%
January 1, 2014	43,409,955	46,889,808	3,479,853	93%	26,724,154	13.0%
January 1, 2015	47,705,478	47,745,640	40,162	100%	25,816,884	0.2%
* January 1, 2016	48,510,796	45,118,624	(3,392,172)	108%	25,243,127	(13.4%)
* January 1, 2017	48,934,219	45,473,686	(3,460,533)	108%	25,197,854	(13.7%)

<sup>\*</sup> The actuarial valuations dated January 1, 2016 and 2017, which determine the annual required contribution for future fiscal years ending June 30, 2018 and 2019, have not been audited.

## Required Supplementary Information – Schedule of Changes in Net Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	*Year ended December 31					
		2016		2015		2014
Total pension liability						
Service cost	\$	4,226,985	\$	4,157,062	\$	4,092,808
Interest		14,966,559		14,812,784		14,698,657
Differences between expected and actual experience		(2,233,762)		(1,890,334)		-
Changes of assumptions		(2,932,883)		-		-
Benefit payments, including refunds of member contributions		(14,138,511)		(15,350,926)		(15,533,167)
Net change in total pension liability		(111,612)		1,728,586		3,258,298
Total pension liability - beginning		204,502,350		202,773,764		199,515,466
Total pension liability - ending (a)	\$	204,390,738	\$	204,502,350	\$	202,773,764
Plan fiduciary net position	•		•		•	
Contributions - employer	\$	5,243,146	\$	5,991,887	\$	5,908,541
Contributions - participants		555,075		487,546		475,854
Net investment income		13,788,263		(95,430)		22,292,369
Other additions		45,848		30,879		29,733
Benefit payments, including refunds of member contributions		(14,044,511)		(15,274,926)		(15,405,167)
Administrative expense		(441,332)		(397,160)		(378,085)
Death benefits		(94,000)		(76,000)		(128,000)
Net change in plan fiduciary net position**		5,052,489		(9,333,204)		12,795,245
Plan fiduciary net position - beginning**		199,462,190		208,795,394		196,000,149
Plan fiduciary net position - ending (b)**	\$	204,514,679	\$	199,462,190	\$	208,795,394
Plan's net pension liability - ending (a) - (b)	\$	(123,941)	\$	5,040,160	\$	(6,021,630)
Plan fiduciary net position as a percentage of the total						
pension liability		100.06%		97.54%		102.97%
Covered payroll	\$	44,437,747	\$	44,446,743	\$	44,076,351
Plan's net pension liability as a percentage of						
covered payroll		(0.28%)		11.34%		(13.66%)

#### Notes to Schedule:

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

<sup>\*\*</sup> Excludes amounts related to 401(k) matching contributions.

Required Supplementary Information – Schedule of Employer Pension Contributions
June 30, 2017
(Unaudited)

	*Year ended December 31					
		2016		2015		2014
Actuarially determined contribution Contribution in relation to the actuarially	\$	5,243,146	\$	5,991,887	\$	5,908,541
determined contribution		5,243,146		5,991,887		5,908,541
Contribution deficiency	\$	-	\$	-	\$	-
Covered payroll Contributions as a percentage of	\$	44,437,747	\$	44,446,743	\$	44,076,351
covered payroll		11.80%		13.48%		13.41%

#### Notes to Schedule:

Valuation Dates: January 1, 2013, January 1, 2014 and January 1, 2015

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.

#### 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 closed period with 26 years remaining as of January 1, 2015

Balary increases: Salary increases: Level dollar closed period with 26 years remaining as of January 1, 2015

8% at January 1, 2013, 7.5% at January 1, 2014 and January 1, 2015

From 2.58% to 7.92% for January 1, 2013 and from 2.80% to 5.15% for

January 1, 2014 and January 1, 2015, based on years of service

Mortality: Sex distinct RP-2000 Combined Mortality projected to 2018 using Scale AA for the January 1, 2013

valuation. Sex distinct RP-2000 Combined Mortality projected to 2024 using Scale AA for the

January 1, 2014 and January 1, 2015 valuations.

Inflation: 2.8 percent

<sup>\*</sup> 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.

Required Supplementary Information – Qualified Governmental Excess Benefit Arrangement

Schedule of Changes in Total Pension Liability and Related Ratios June 30, 2017

(Unaudited)

	Year ended December 31
	2016
Total pension liability	
Service cost	\$ -
Interest (includes interest on service cost)	-
Changes of benefit terms	185,077
Differences between expected and actual experience	-
Changes of assumptions	-
Benefit payments, including refunds of member contributions	-
Net change in total pension liability	185,077
Total pension liability - beginning	-
Total pension liability - ending	\$ 185,077
Covered payroll	\$44,437,747
Total pension liability as a percentage of	
covered payroll	0.42%

#### Notes to Schedule:

<sup>\*</sup> 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, 2017

(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), and OPEB Trust funds. 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 - \$1,500,000 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 \$450,000 per individual participant.

# Knoxville Utilities Board Wastewater Division Supplemental Information – Schedule of Debt Maturities by Fiscal Year June 30, 2017 (Unaudited)

Schedule 2
Continued on Next Page

	2008		2010		2010C			2012A		201	2012B		2013A	
FY	Principal	Interest	Principal	Interest	Rebate*	Principal	Interest	Rebate*	Principal	Interest	Principal	Interest	Principal	Interest
17-18	1,950,000	97,500		1,910,000	668,500	1,500,000	3,584,425	1,254,548	985,000	528,325	1,000,000	1,904,375	635,000	3,538,700
18-19	1,930,000	97,300		1,910,000	668,500	1,550,000	3,525,625	1,233,968	970,000	498,775	1,050,000	1,891,871	660,000	3,513,300
19-20				1,910,000	668,500	1,600,000	3,460,990	1,233,966	950,000	496,775	1,100,000	1,878,750	685,000	3,486,900
20-21				1,910,000	668,500	1,650,000	3,394,270	1,211,346	1,085,000	434,000	1,150,000	1,862,250	710,000	3,459,500
21-22				1,910,000	668,500	1,700,000	3,325,465	1,167,994	1,175,000	390,600	1,130,000	1,804,750	740,000	3,431,100
22-23														
22-23				1,910,000 1,910,000	668,500 668,500	1,750,000 1,850,000	3,246,925 3,162,575	1,136,424 1,106,902	1,165,000 1,250,000	343,600 297,000	1,250,000 1,300,000	1,744,750 1,694,750	770,000 4,600,000	3,401,500 3,370,700
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	4,900,000	3,232,700
24-25 25-26				1,910,000	668,500	2,375,000	2,961,125	1,072,906	1,190,000	201,400	1,425,000	1,587,750	5,040,000	3,085,700
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		2,934,500
20-27 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	5,200,000	2,778,500
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	6,305,000	2,573,588
29-30				1,910,000	668,500	2,850,000	2,376,975	831,942	1,330,000	55,200	1,700,000	1,374,750	6,535,000 8,315,000	2,377,538
30-31				1,910,000	,			773,588			1,775,000			2,128,088
31-32				1,910,000	668,500 668,500	2,975,000 3,100,000	2,210,250 2,031,750	773,566 711,112			1,775,000	1,323,750 1,270,500	8,550,000	1,871,588
31-32							1,845,750						8,840,000	
32-33 33-34				1,910,000	668,500	3,250,000		646,012			1,950,000	1,214,250	9,120,000	1,606,388
				1,910,000	668,500	3,375,000	1,650,750	577,762			2,025,000	1,155,750	9,390,000	1,332,788
34-35				1,910,000	668,500	3,550,000	1,448,250	506,882			2,125,000	1,095,000	9,705,000	1,015,875
35-36 36-37				1,910,000	668,500	3,700,000	1,235,250	432,338			2,225,000	1,031,250	10,025,000	688,331
				1,910,000	668,500	3,875,000	1,009,550	353,342			2,325,000	964,500	10,370,000	349,988
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			40 000 000	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	1.050.000	¢ 07.500 6	20,000,000	F1 FF0 000 #	10.040.500	62 100 000	F2.450.600	10.605.534	12.755.000	2740.250	64.275.000	25 100 100	111 005 000	E0 477 070
Total S	1,950,000	Ф <u>97,500</u> 3	30,000,000	\$ <u>01,000,000</u> \$	10,042,500 \$	53,100,000	33,138,689	10,000,534	13,755,000	3,7 19,350	01,3/5,000	35,108,496	111,095,000	50,177,272

\*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, 2016 these bonds became subject to a 6.9% 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, 2017 (Unaudited)

Schedule 2

## **Continued from Previous Page**

													Grand Total	Grand Total
	2014A		2015A		2015B		2016		2017A		TOTALS		(P + I)	(Less Rebates)
FY	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest		
17-18	475,000	1,077,119	2,835,000	5,109,512	475,000	1,128,438	450,000	540,031	1,405,000	537,883	11,710,000	19,956,308	31,666,308	29,743,260
18-19	475,000	1,058,119	5,010,000	4,967,762	500,000	1,104,688	450,000	531,031	1,460,000	490,800	12,125,000	19,491,971	31,616,971	29,714,503
19-20	500,000	1,039,119	5,305,000	4,717,262	525,000	1,079,688	475,000	522,031	1,525,000	417,800	12,665,000	18,979,790	31,644,790	29,764,944
20-21	525,000	1,019,119	5,460,000	4,452,012	525,000	1,063,938	475,000	512,531	1,605,000	341,550	13,185,000	18,449,170	31,634,170	29,777,676
21-22	550,000	998,119	5,675,000	4,179,012	550,000	1,042,938	500,000	488,781	1,685,000	261,300	13,775,000	17,832,065	31,607,065	29,774,653
22-23	575,000	981,619	6,005,000	3,895,262	575,000	1,020,936	525,000	463,781	1,775,000	177,050	14,390,000	17,185,423	31,575,423	29,770,499
23-24	600,000	964,369	3,720,000	3,595,012	600,000	997,938	550,000	437,531	595,000	88,300	15,065,000	16,518,175	31,583,175	29,807,773
24-25	625,000	946,369	3,785,000	3,483,412	625,000	973,938	575,000	421,031	615,000	70,450	15,590,000	15,993,100	31,583,100	29,841,692
25-26	650,000	927,619	1,425,000	3,369,864	650,000	955,188	575,000	409,531	640,000	52,000	13,970,000	15,460,177	29,430,177	27,725,283
26-27	700,000	908,119	1,490,000	3,323,550	675,000	935,688	600,000	398,031	660,000	26,400	14,560,000	14,951,576	29,511,576	27,852,318
27-28	725,000	880,119	1,405,000	3,271,400	700,000	915,438	600,000	386,032			15,190,000	14,405,127	29,595,127	27,985,657
28-29	750,000	851,119	1,450,000	3,222,226	725,000	887,438	625,000	374,032			15,765,000	13,831,491	29,596,491	28,040,255
29-30	775,000	821,119	1,455,000	3,178,726	775,000	858,438	625,000	361,532			16,495,000	13,259,078	29,754,078	28,253,636
30-31	825,000	790,119	1,515,000	3,135,076	800,000	827,436	650,000	348,250			17,090,000	12,672,969	29,762,969	28,320,881
31-32	850,000	757,119	1,520,000	3,089,626	825,000	795,436	675,000	333,625			17,685,000	12,059,644	29,744,644	28,365,032
32-33	900,000	723,119	1,580,000	3,042,125	850,000	762,436	675,000	318,438			18,325,000	11,422,506	29,747,506	28,432,994
33-34	925,000	687,119	1,635,000	2,992,750	900,000	733,750	700,000	302,406			18,950,000	10,765,313	29,715,313	28,469,051
34-35	975,000	650,119	1,690,000	2,939,612	925,000	703,375	700,000	284,906			19,670,000	10,047,137	29,717,137	28,541,755
35-36	1,025,000	611,119	1,750,000	2,884,688	975,000	671,000	725,000	267,406			20,425,000	9,299,044	29,724,044	28,623,206
36-37	1,075,000	570,119	1,825,000	2,827,812	1,000,000	632,000	750,000	249,282			21,220,000	8,513,251	29,733,251	28,711,409
37-38	500,000	527,119	13,420,000	2,768,500	500,000	592,000	775,000	229,594			21,670,000	7,695,138	29,365,138	28,426,026
38-39	500,000	507,119	13,895,000	2,298,800	500,000	572,000	775,000	209,250			22,445,000	6,845,294	29,290,294	28,437,650
39-40	500,000	488,994	14,480,000	1,743,000	500,000	552,000	800,000	186,000			23,330,000	5,893,894	29,223,894	28,461,454
40-41	1,175,000	470,869	15,130,000	1,236,200	1,100,000	532,000	825,000	162,000			21,005,000	4,977,069	25,982,069	25,313,569
41-42	1,225,000	428,275	15,775,000	631,000	1,150,000	488,000	850,000	137,250			21,900,000	4,177,275	26,077,275	25,408,775
42-43	1,300,000	382,950			1,200,000	442,000	875,000	111,750			16,400,000	3,342,450	19,742,450	19,073,950
43-44	1,350,000	334,850			1,250,000	394,000	900,000	85,500			16,650,000	2,479,350	19,129,350	18,688,350
44-45	1,400,000	284,900			1,300,000	344,000	950,000	58,500			16,950,000	1,627,900	18,577,900	18,357,400
45-46	1,475,000	233,100			1,350,000	292,000	1,000,000	30,000			7,275,000	766,600	8,041,600	8,041,600
46-47	1,550,000	178,525			1,400,000	238,000					6,550,000	524,525	7,074,525	7,074,525
47-48	1,600,000	121,175			1,450,000	182,000					3,050,000	303,175	3,353,175	3,353,175
48-49	1,675,000	61,975			1,525,000	124,000					3,200,000	185,975	3,385,975	3,385,975
49-50					1,575,000	63,000					1,575,000	63,000	1,638,000	1,638,000
Total	\$ <u>28,750,000</u> \$	21,280,731	\$ <u>129,235,000</u>	80,354,201	\$ <u>28,975,000</u> \$	22,905,125	\$ <u>19,650,000</u>	9,160,063	\$ <u>11,965,000</u> \$	2,463,533	\$ <u>499,850,000</u> \$	329,974,960	829,824,960 \$	793,176,926

<sup>\*</sup>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, 2016 these bonds became subject to a 6.9% 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 Current Rates in Force June 30, 2017 (Unaudited)

Rate Class	Base Charg	е						Number of Customers			
Residential Inside City rate	For wastewater service furnished to premises entirely within the corporate limits of the City of Knoxville:										
,	Commodity Charge										
	First 2 100 Cubic Feet Per Month at \$0.70 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 \$ 1" meter 1 1/2" meter 2" meter		29.00 44.00 56.00 76.00						
Non-Residential Inside City rate	For wastewa		7,516								
		C	ommodity Cha								
	First Next Next Next Next Next	2 8 90 300 4,600 5,000	100 Cubic 100 Cubic 100 Cubic 100 Cubic	Feet Per Feet Per Feet Per Feet Per	Month at S Month at S Month at S Month at S	50.85 Per 100 Cubic Feet 511.10 Per 100 Cubic Feet 59.90 Per 100 Cubic Feet 58.50 Per 100 Cubic Feet 56.90 Per 100 Cubic Feet 54.30 Per 100 Cubic Feet					
Additional Monthly Customer Charge											
			5/8" meter 1" meter 1/2" meter 2" meter 3" meter 4" meter 6" meter 8" meter 10" meter	\$	29.00 44.00 56.00 76.00 138.00 225.00 480.00 834.00 1,265.00 1,862.00						

Schedule 3

See accompanying Report of Independent Auditors on Supplemental Information.

# Knoxville Utilities Board Wastewater Division Supplemental Information – Schedule of Current Rates in Force June 30, 2017 (Unaudited)

Rate Class	Base Charge					Number of Customers	
Residential		y or partly outside the corporate limits	7,828				
Outside City rate	of the City of Ki		mmodity Cha				
	First 2 100 Cubic Feet Per Month at \$0.85 Per 100 Cubic Feet						
	er Month at \$9.30 Per 100 Cubic Feet						
		Additional	Charge				
		5/8	8" meter	\$	33.00		
			1" meter		47.00		
		1 1/3	2" meter		64.00		
		:	2" meter		84.00		
Non-Residential	For wastewater	senice furnish	ned to premise	e entirel	ly or partly outside the corporate limits	330	
Outside City rate	of the City of Kı		ica to premise.	3 CHILICI,	y or partly outside the corporate limits	550	
Outoido Oity fato	or the only of the						
	First	2	100 Cubic	Feet Pe	er Month at \$1.00 Per 100 Cubic Feet		
	Next	8	100 Cubic	Feet Pe	er Month at \$12.25 Per 100 Cubic Feet		
	Next	90	100 Cubic	Feet Pe	er Month at \$10.85 Per 100 Cubic Feet		
	Next	300	100 Cubic	Feet Pe	er Month at \$9.30 Per 100 Cubic Feet		
	Next	4,600	100 Cubic	Feet Pe	er Month at \$7.75 Per 100 Cubic Feet		
	er Month at \$4.80 Per 100 Cubic Feet						

## Knoxville Utilities Board Wastewater Division Supplemental Information – Schedule of Current Rates in Force June 30, 2017

(Unaudited) Schedule 3

#### **Additional Monthly Customer Charge**

5/8" meter	\$ 33.00
1" meter	47.00
1 1/2" meter	64.00
2" meter	84.00
3" meter	156.00
4" meter	249.00
6" meter	527.00
8" meter	918.00
10" meter	1,386.00
12" meter	2,046.00



phone: (865) 637-4161 fax: (865) 524-2952 web: cj-pc.com

Report of Independent Auditors 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

### **Report on the Financial Statements**

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, 2017, 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 18, 2017.

#### **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*.

### **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 18, 2017