2018 Annual Report

Memphis Light, Gas and Water Division

Focused To Serve

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About MLGW

The responsibility to provide excellent service to the citizens of Memphis and Shelby County inspires us every day, infusing our purpose, principles and direction. Founded in 1939, Memphis Light, Gas and Water Division is the nation's largest full-service municipal utility company; our services of Electric, Gas and Water are the foundation to the quality of life that more than 431,000 customers enjoy. Each day, we strive to exceed expectations because "Serving You Is What We Do."

Our Suppliers

The Tennessee Valley Authority provides MLGW with wholesale electricity. MLGW is TVA's largest customer, representing about 11 percent of TVA's total load. MLGW buys its natural gas from a variety of suppliers. It is transported by three pipeline companies – Texas Gas Transmission Corp., Trunkline Gas Co. and ANR Pipeline Co. Memphis receives its water from the Memphis Sand and Fort Pillow aquifers which is one of the largest artesian water systems in the world.

Our Leaders

The president and a seven-member Board of Commissioners leads MLGW. Board members serve staggered terms. Two board members, who live outside of Memphis but within Shelby County, serve in an advisory, non-voting capacity. The Memphis Mayor appoints the President and the Board members with the approval of the Memphis City Council.

Board of Commissioners

Michael E. Pohlmann
Leon Dickson Sr.
Carlee McCullough, *Vice Chair*
Steven Wishnia, *Chair*
Mitch Graves

Advisory Board Members

Kevin Young
Dwain Kicklighter

Senior Leadership Council

Jarl "J.T." Young, *President and CEO*
Dana Jeanes, *SVP, CFO & CAO Secretary - Treasurer*
Alonzo Weaver, *SVP & COO*
Christopher Bieber, *VP of Innovation and Analytics*
Gale Jones Carson, *VP of Community and External Affairs*
Cliff DeBerry Jr., *VP of Design, Construction and Delivery*
Von Goodloe, *VP of Shared Services*
Nick Newman, *VP of Engineering and Operations*
Cheryl Patterson, *VP and General Counsel*
Lashell Vaughn, *VP and CIO*
Lesa Walton, *Chief Internal Auditing Officer*
Jim West, *Chief Customer Officer*
Roland McElrath, *Controller*

President's Letter

In 2018, I accepted the call to become the 11th President and CEO of Memphis Light, Gas and Water Division. As a servant leader, it is my responsibility to make sure MLGW employees have the resources needed to safely deliver services that create and sustain superior customer experiences. It is our mission, the very reason MLGW exists.

We spent much of the year reconfiguring our departments within the Division in order to improve efficiencies and the speed of service delivery. With no layoffs, we made adjustments to elevate the visibility of safety and wellness, emphasize the importance of innovation and create greater value for our customers, among other goals.

I've said this often: when we care for each other, we can better serve our customers. MLGW employees are thoroughly embracing an enhanced culture of safety through regular safety conferences and departmental meetings. Safety is caring and it is working as evidenced by a trend of fewer on-the-job safety incidents as compared to 2017.

MLGW focused on the customer service experience in 2018. For example, we installed a new interactive voice response (IVR) system that makes it easier for customers to reach a live advisor. Smart meters not only saved customers more than $4.6 million in 2018 but they also allowed us to restore disconnected service much more quickly and efficiently and they allowed us to offer a pay-as-you-go option known as "PrePay" to our customers.

In 2018, MLGW continued to increase value for our customers with timely responses to restore services lost during powerful storms. In addition to our commitment to provide reliable service, our employees were active participants in the community, visiting schools, participating in parades and boosting interest in STEM careers. More households were able to receive assistance to reduce their energy burden by tapping into the resources raised by the Share the Pennies program.

Finally, MLGW framed and presented an infrastructure improvement plan designed to deliver more value for our customers in the future by deploying technology and additional resources to improve reliability measures for all our services. Although the plan was not fully approved, we are confident that as we move forward, our customers will soon enjoy the full range of value from our initiatives.

"Serving You is What We Do" is part of our ongoing commitment to be the trusted provider of exceptional customer value in the communities that we are privileged to serve in 2019 and beyond.

Jarl "J.T." Young
President and CEO

MLGW Focused On Organizational Structure

Under the direction of MLGW President and CEO J.T. Young and the senior management team, Memphis Light, Gas and Water Division successfully underwent a reorganization in 2018. The reorganizational changes were effective September 9. The objectives for the changes were:

1) Elevating the visibility of safety
2) Improving efficiency and speed of customer service and accountabilities
3) People development opportunities
4) Re-alignment of several areas to help create and maintain a culture of integrity, accountability, efficiency and people development

MLGW Among The Best In Rates And Charges

Since 2013, Memphis has earned the top spot for having the lowest combined typical winter residential bill among selected cities across the country.

The largest three-service municipal utility system in the nation, MLGW delivers electricity, natural gas and water throughout Memphis and Shelby County. Each year we strive to not only deliver the best possible price, but also the highest quality service. One way we measure our performance is to examine how Memphis' typical winter bills compare to other cities in the U.S and Europe.

We surveyed 41 cities, including many that are geographically close to Memphis, as well as utilities that are similar in size. All costs covered in this survey are based on published rates effective January 2018.

MLGW started collecting data on rates in the early 1990s. Memphis continues to outperform many cities in terms of what customers pay for electricity, natural gas and water services. In 2017, a typical winter residential bill was $253.09; the bill decreased to $244.10, a difference of $8.99, in 2018. MLGW's financial management remains a driving force in keeping utility bills as low as possible.

Focused On Improving Infrastructure

In 2018, small rate increases for electric and gas went into effect with the July billing periods. The increases for electric and gas averaged about two percent. The revenues raised helped fund capital improvement projects such as:

- New electric Substation 89 completion and other substation and transmission upgrades and replacements
- New customer interactive voice response and crew mobile dispatch systems along with other information systems projects
- New distribution system circuit ties
- New and replacement transmission natural gas pipelines
- Continued work on the Cast Iron Replacement project.

FOCUSED ON SAFETY

President Young Stresses Safety Culture

Are you ready to care about people? The question sets the foundation for how President J.T. Young plans to cultivate a strong culture of safety at Memphis Light, Gas and Water Division. "At the end of the day, you need to care about people," Young told a roomful of MLGW leadership who gathered for the 2018 MLGW Safety Conference, held Sept. 26 at the Teaching and Learning Academy on Union Ave. "Without caring, you really can't be a leader." Caring is critical. Nothing we do is more important than safety, Young stressed.

In the utility industry, there is little room for error. "I've seen people get injured, break bones in their body, and all they did was walk down the hall," said Young. "The culture is important when it comes to safety," said Young, adding that zero safety accidents can be achieved throughout a company if the culture recognizes safety as a core value.

"It's not about the numbers as much as it is about caring for people," he said, noting how co-workers, holding one another accountable, can save lives because everyone has a role when it comes to work culture and safety. "When you get the culture in your work environment to a place where safety is a given… then you are really on your way to having a great safety culture."

MLGW Earns Top Power Reliability/ Safety Designation

Memphis Light, Gas and Water Division earned a Diamond Level designation in the American Public Power Association's Reliable Public Power Provider Program (RP3), which recognizes utilities that demonstrate high proficiency in reliability, safety, workforce development and system improvements. The Reliable Public Power Provider program has been ongoing since 2005.

In 2018, 118 utilities earned the designation and, in total, 254 of the more than 2,000 public power utilities nation-wide hold the RP3 designation. The 2018 designation marked the sixth time that MLGW has earned APPA RP3 recognition.

FOCUSED ON INNOVATION

MLGW Improved Customer Service Experience

Memphis Light, Gas and Water Division improved the customer service experience by streamlining the new Interactive Voice Response (IVR) system on the customer service line, 544-6549, and enacting an additional safeguard for customers who pay online. Those who use the customer service line can reach a live advisor by using the key words “representative,” “help,” “agent” or “operator” from the general information menu or any sub-menu after accessing their account. That was a significant change from the previous outdated IVR system. To further assist customers who pay online, customers making a one-time payment must select if their funds are being processed from either a personal checking or savings account or business checking or saving account. A payment won’t be processed without a selection.

Focused On New Payment Options

MLGW expanded a new service made possible by smart meters, PrePay. It offers many benefits including eliminating deposits, reconnection fees and customer fees. The new option affords more control over their utilities and avoids those end-of-the-month bill surprises.

Now customers have the option to make smaller, more frequent payments, making it easier to set a household energy budget that makes sense for their lifestyle. For example, customers who get paid on a weekly basis, can choose to make payments when they get paid instead of once a month. New customers can start their PrePay account with just $100. Customers can choose text, phone or email for low balance alerts so they'll always know how much money is on their account. In the event services are disconnected, they can be restored in about an hour after payment is made.

Innovative LNG Sales Exceed Goals

MLGW surpassed its goal of $5 million in liquefied natural gas sales revenue in 2018. The final 2018 LNG sales revenue was $6.2 million. On average, MLGW sells about 800,000 gallons of LNG per month.

"MLGW's LNG sales is a great source of revenue for MLGW that benefits all of our customers," said Jeff Sissom, Supervisor of MLGW's Gas Portfolio Management. "Since 2012, MLGW's LNG sales have benefited our customers by more than $35.1 million."

FOCUSED ON GREATER CUSTOMER VALUE

Family Grateful For MLGW's Help

MLGW Credit Operations often receives calls for assistance. One from the St. Anne Conference of the Society of St. Vincent de Paul in mid-January spurred MLGW employees into action: Ms. Pearl, a grandmother who is responsible for five grandchildren, ages six to 13.

Immediately, a few employees, who asked to remain anonymous, found a coat for the 9-year-old boy; however, the six-year-old twin boys needed underwear and the 12- and 13-year-old girls needed shoes and more. Not to mention, their utility bill was high. In short order, more than $400 was collected toward the utility bill and other needs were met.

"I wish that I could convey how truly grateful they are for your love and generosity. The smiles on the children's faces and the tears in the grandmother's eyes say more than words could ever express," reads the "Thank You" card from St. Vincent de Paul, a Memphis organization that offers personal services to the needy.

MLGW Employees Give To The Less Fortunate

In December, the "family" of employees in Purchasing, Contract Management and Supplier Diversity decided to do something different. Instead of gifting each other, they gifted the less fortunate for the holiday. What began with passing out 50 hygiene kits to the homeless last year expanded to over 150 kits—plus free food—this year. "It's grown," said Demetria D. Bowers-Adair, Purchasing, about the service project.

Bowers-Adair said last year they walked from the Administration Building to the Memphis Union Mission handing out kits along the way; this year, they passed out flyers in advance to attract people to a tent stationed on High Street directly behind the mission. It worked.

Dozens of homeless recently lined up for the hygiene kits, which included toothpaste, a tooth brush, mouthwash, bath soap, wash cloth, gloves, hand warmers, socks, shampoo and more. Cedric and Patrice Roby, owners of the Memphis food truck franchise of Oink and Moo BBQ, donated meals of chicken, pork chops and more as part of its ministry to serve the community, Mr. Roby said.

MLGW Crews Completed Restoration

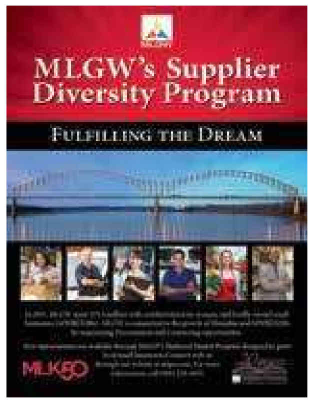
In the summer of 2018, Memphis Light, Gas and Water Division crews worked to restore service after storms knocked out power to about 35,000 customers, causing extensive damage to many poles and wires, particularly in Whitehaven, Hickory Hill, Germantown, Collierville and South Memphis. President and CEO J.T. Young thanked crews and employees for their service: "Thank you to all employees for serving our customers and community. I share the gratitude of our customers for the efficient and safe work by our crews and the outside assistance that also came to our aid."

"Angels" After The Hurricane

In October, Florida Panhandle residents Randy and Marsha Chandler were without electrical power for over two weeks due to Hurricane Michael. Without a generator, the couple spent most nights heating up cans of soup on the barbecue grill and listening to their transistor radio in the dark. The Category 4 hurricane made landfall on October 10 near Mexico Beach, about 80 miles to the south of Chandlers' home in Two Egg, Florida. When Randy finally saw utility trucks —MLGW crews — driving to his rural home on October 27, he told his wife, "Looks like angels from heaven driving to rescue us." Two MLGW crews worked in Florida from October 12 to November 3. The Chandlers, who are West Florida Electric customers, called MLGW to give a shout-out to those crews who not only restored their power but gave them a boost of confidence in humanity.

Focused On Supplier Diversity

IIn 2018, MLGW's supplier diversity program celebrated its 20th anniversary. The program has had a stellar track record when it comes to encouraging women, minority and local small business participation. Renise Holliday, MLGW Supplier Diversity Coordinator said, "We continue to be very, very excited about our sheltered market program, which is our local small business program because it has done very well since its existence. We have outstanding numbers for 2018."



MLGW's Supplier Diversity Program

FULFILLING THE DREAM

2018 Supplier Diversity Procurement Spend Impact

Classification	Amount	Percent of Total
Minority Business Enterprise	$33,968,941.03	18%
Locally-Owned Small Business	$22,364,599.73	12%
Women's Business Enterprise	$10,002,156.65	5%
Total Diversity Spend	**$66,335,697.41**	**35%**

Total Procurement Spend: $192M

Share The Pennies' Impact Grows

In 2018, the Tennessee Valley Authority (TVA) announced plans to invest in the Share the Pennies home weatherization program for low income residents in Memphis and Shelby County. The program is sponsored by Memphis Light, Gas and Water and Metropolitan Inter-Faith Association (MIFA). Share the Pennies rounds MLGW customers' utility bills to the next full dollar amount. The additional amount, no matter how small, is then added to a fund managed by MIFA. These funds are then awarded to qualifying homeowners to assist with energy efficiency repairs to their homes. TVA's extra funding provided money to weatherize the homes of more customers who can't afford that themselves. For more information, please visit *mifa.org/sharethepennies.*

Letter of Transmittal

MEMPHIS LIGHT, GAS AND WATER DIVISION

To the Board of Commissioners and Valued Stakeholders:

We are pleased to submit the Annual Report of Memphis Light, Gas and Water Division (MLGW) for the fiscal year ending on December 31, 2018, as required by the Charter Provisions of the City of Memphis (City) creating Memphis Light, Gas and Water Division. This report has been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) for proprietary funds of governmental entities.

Responsibility for the accuracy and presentation of the information provided is the full responsibility of the management of MLGW. Disclosures necessary to assist the reader in understanding of the financial statements have been included.

MLGW's financial statements have been audited by Mayer Hoffman McCann P.C., licensed certified public accountants. The goal of the independent audit was to provide reasonable assurance that the financial statements of MLGW for the fiscal year ending on December 31, 2018 are free from material misstatement. The audit involved performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements; evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management; and evaluating the overall financial statement presentation.

The independent auditors concluded, based upon the audit, that there was a reasonable basis for rendering an unmodified opinion that MLGW's financial statements for the fiscal year ending on December 31, 2018 are fairly presented in conformity with GAAP. The independent auditor's report is presented as the first component of the financial section of the report.

GAAP requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of a Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. MLGW's MD&A can be found immediately following the auditor's report.

Profile of the Government – MLGW was created by an amendment to the City Charter by Chapter 381 of the Private Acts of the General Assembly of Tennessee, adopted March 9, 1939, as amended (the "Private Act"). MLGW operates three separate utilities, as divisions, providing electricity and gas in the City and Shelby County. Water service is provided by MLGW in the City, and together with other municipal systems, in Shelby County.

Each division operates as a separate entity for accounting and financial purposes in accordance with the Private Act. For economic reasons, activities common to all three divisions are administered jointly and costs are prorated monthly among the divisions. A 1981 amendment to the City Charter permits forming additional divisions to provide other energy services.

MLGW controls the administration of its activities and business affairs. It operates independently, manages its own finances and is responsible for obligations incurred in such operations, including indebtedness payable from operations of the Division. MLGW must have the City Council's approval for its annual budget and also before incurring certain obligations, including purchasing real estate and exercising the right of eminent domain.

MLGW is managed by a Board of Commissioners, which consists of five members nominated by the Mayor and approved by the City Council and two advisory, non-voting members which were added in 2017. The Board is responsible for supplying the Division's service areas with electricity, gas and water. Board members serve staggered terms of three years each. Every two years, the Board elects a Chairman and a Vice Chair, whose terms begin January 1. Board members continue to serve until a new board member is appointed by the Mayor and confirmed by the City Council.

The daily operations of MLGW are managed by the President and Chief Executive Officer, who is nominated for a five-year term by the Mayor and approved by the City Council. Under the Private Act, the President generally supervises MLGW's operations and its officers and employees.

Local Economy – Memphis sits on the banks of the Mississippi River in the southwestern corner of Tennessee. The Bluff City ranks as the second largest city in the state and the 25th largest in the nation with a population of 668,228. In Greater Memphis today, there is more than $15 billion in recent, current and future development. According to the city, Union Row is poised to remake a key Downtown stretch, Indigo Ag just located its North American headquarters and 700 new jobs to the city, and ServiceMaster affirmed its commitment by moving its headquarters to Downtown. The city's unemployment rate remains at historical lows, and about 18,000 more people are working today when compared to just a few years ago.

Three Fortune 500 world headquarters – FedEx, International Paper and AutoZone – call Memphis home. In addition, Nike, Hilton, Coca-Cola and Medtronic have major offices or distribution facilities in Memphis. Memphis was recently named as the Number 1 city in America for black businesses.

MLGW has a major impact on the local economy. Of the $192 million the Division spent in 2018 for goods, supplies and services, 35 percent – or $66.3 million – went to companies owned by minorities and women or local small businesses. For the sixth consecutive year, MLGW has the lowest combined residential rates for electric, gas and water among 25 major metropolitan cities. All three Divisions hold excellent credit ratings from Standard and Poor's and Moody's. The rating agencies view MLGW as a reliable and stable financial investment.

National Economy – According to the Bureau of Economic Analysis, a division of the U.S. Department of Commerce, real gross domestic product (GDP), a key indicator of economic growth, increased 2.9 percent for all of 2018. Increases in healthy consumer spending levels, including significant spending on light trucks, as well as strong business investment in equipment, software and intellectual research and development, contributed to the GDP's growth in 2018.

Financial Policies and Major Initiatives – MLGW maintains a comprehensive cash flow model which assesses the growth of the separate divisions and determines future rate increase and debt issuance requirements. MLGW also incorporates a five-year capital plan in its budgeting process. MLGW's Electric, Gas and Water Engineering Departments develop detail technical master plans for their respective systems which are then correlated with the financial plan.

In 2018 MLGW invested over $164 million in capital assets and system infrastructure.The smart meter project is a major continuing initiative which is moving ahead of the 2020 schedule. All residential electric smart meters have been installed, and the commercial and industrial meters will be completed by the end of 2019. As a part of the smart meter program, MLGW began to offer prepayment options for customers which provides an alternative to receive and pay for utility services.

Electric infrastructure investment is moving ahead for a new substation in the southern part of Shelby County and for additional substation capacity to an existing station in the central part of the county.

The Gas Division maintained progress on its 30-year cast iron pipe replacement program. Additionally, four critical transmission pipeline integrity projects were completed. Gas smart meter deployment continues to be a primary focus. The residential smart meter installations for the Gas Division are planned to be completed by the end of 2020.

For the Water Division, work included major rehabilitation to the Mallory pumping stations, and several new wells were constructed and brought online at various pumping stations. MLGW is committed to removing lead service lines from the distribution system. The installation of residential water smart meters is scheduled to be completed by the end of 2020.

Acknowledgements – The preparation of this report was made possible by the overall dedication of MLGW's Finance Division. We would like to express our appreciation to all Finance Division members who helped prepare this report. Special thanks must also be given to Mayer Hoffman McCann P.C. and Jones & Tuggle PLLC for their efficient and timely completion of this year's audit.

Respectfully submitted,

Dana J J

J.T. Young
President and CEO

Dana J. Jeanes
SVP, CFO & CAO (Secretary - Treasurer)

OUR MISSION

To safely deliver services that create and sustain superior customer experiences.

OUR VISION

To be the trusted provider of exceptional customer value in the communities we are privileged to serve.

OUR VALUES

Safety – We make working safely paramount… it is the most important thing we do. We seek to create and maintain a safe work environment for our people.

Integrity – We seek to do the right things for the right reasons. We build trust among our people and with all of our stakeholders through honesty and ethical behavior.

Ownership – We care about the MLGW enterprise and we act like owners. We treat the MLGW enterprise as we would our own and we operate with MLGW's long-term success in mind. We pursue excellence and innovation and we are accountable for our decisions and behaviors.

Inclusion – We serve customers who represent a variety of backgrounds. We are committed to including and developing a similar diversity among our teams and among those from whom we purchase products and services.

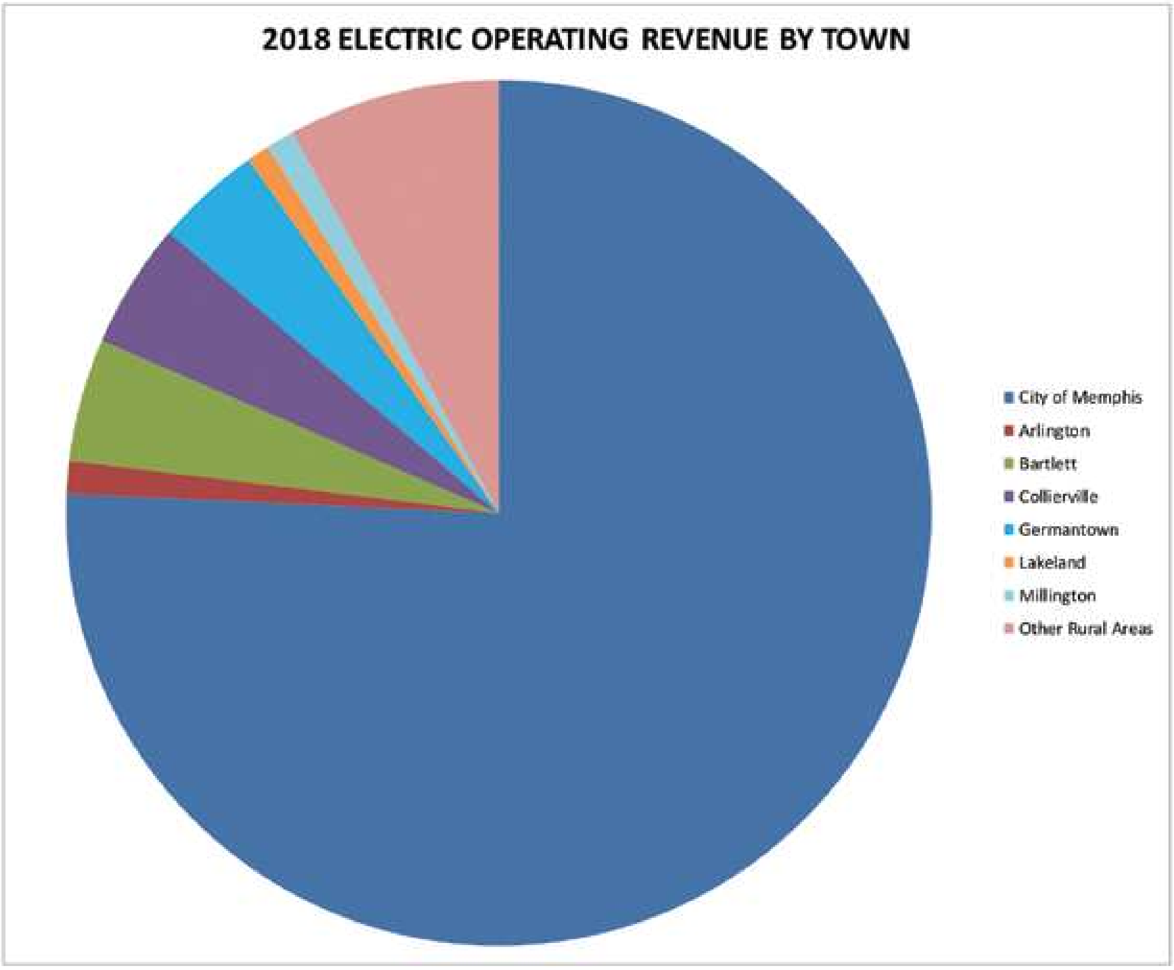
Compassionate Service – We are committed to providing superior customer and people experiences. We do so with empathy, courtesy and efficiency and we serve our community with a similar passion.

MLGW
SERVING YOU IS
WHAT WE DO

FINANCIAL HIGHLIGHTS
FOR THE YEARS ENDED
DECEMBER 31, 2018, 2017, AND 2016
(dollars and consumption in thousands)

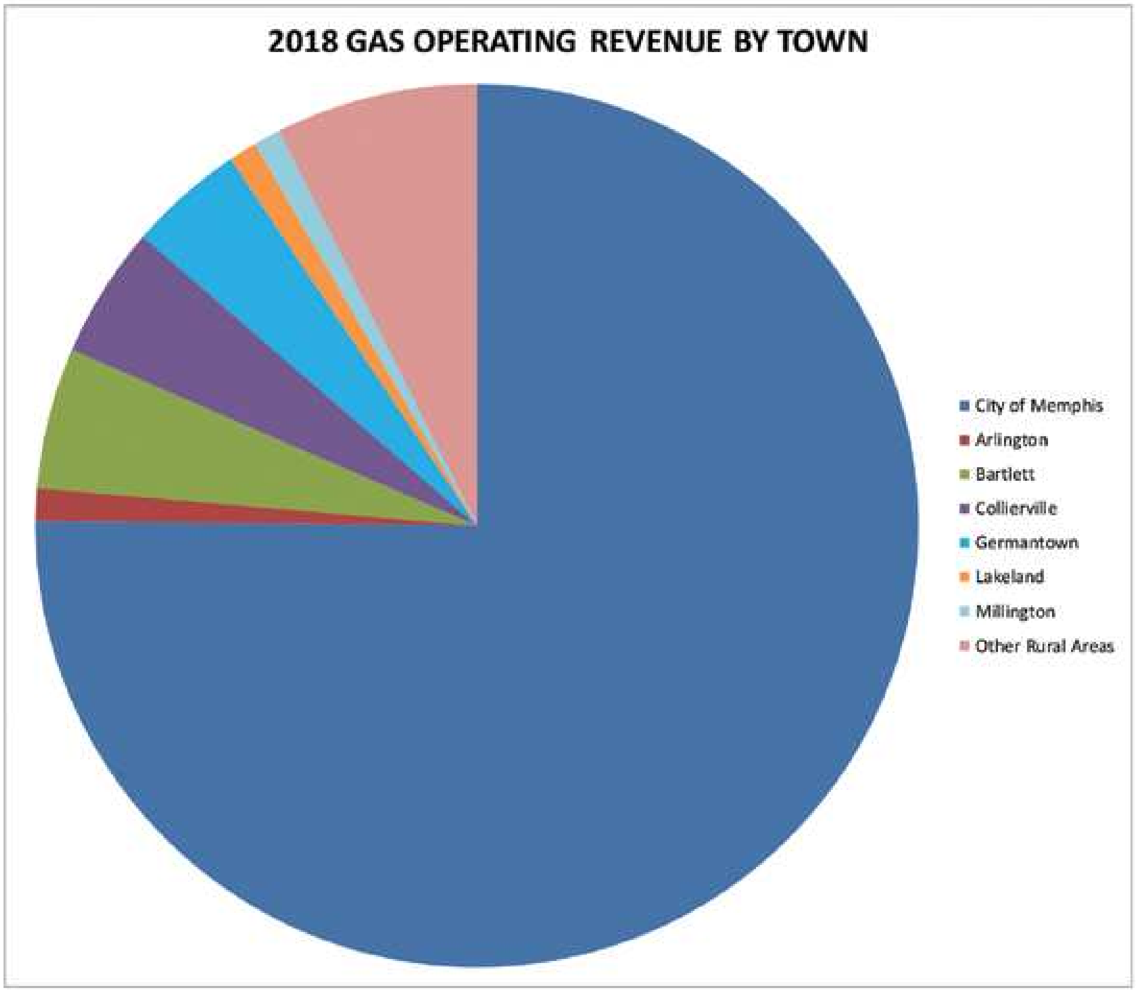
Operating Statistics by Towns:

	ELECTRIC AMOUNT			ELECTRIC KWH		
	2018	2017	2016	2018	2017	2016
City of Memphis	$ 976,456	$ 941,590	$ 950,692	10,604,732	10,154,668	10,436,626
Arlington	15,915	14,859	14,939	173,569	161,287	165,439
Bartlett	59,161	54,997	56,320	604,446	560,817	585,813
Collierville	60,549	57,100	58,332	641,313	600,718	626,769
Germantown	51,230	47,985	49,555	535,716	499,700	526,438
Lakeland	10,943	10,073	10,049	113,885	104,400	106,211
Millington	13,722	12,733	12,528	138,915	129,112	130,117
Other Rural Areas	101,931	94,737	97,120	1,180,513	1,097,479	1,144,430
Total	$ 1,289,907	$ 1,234,074	$ 1,249,535	13,993,089	13,308,181	13,721,843



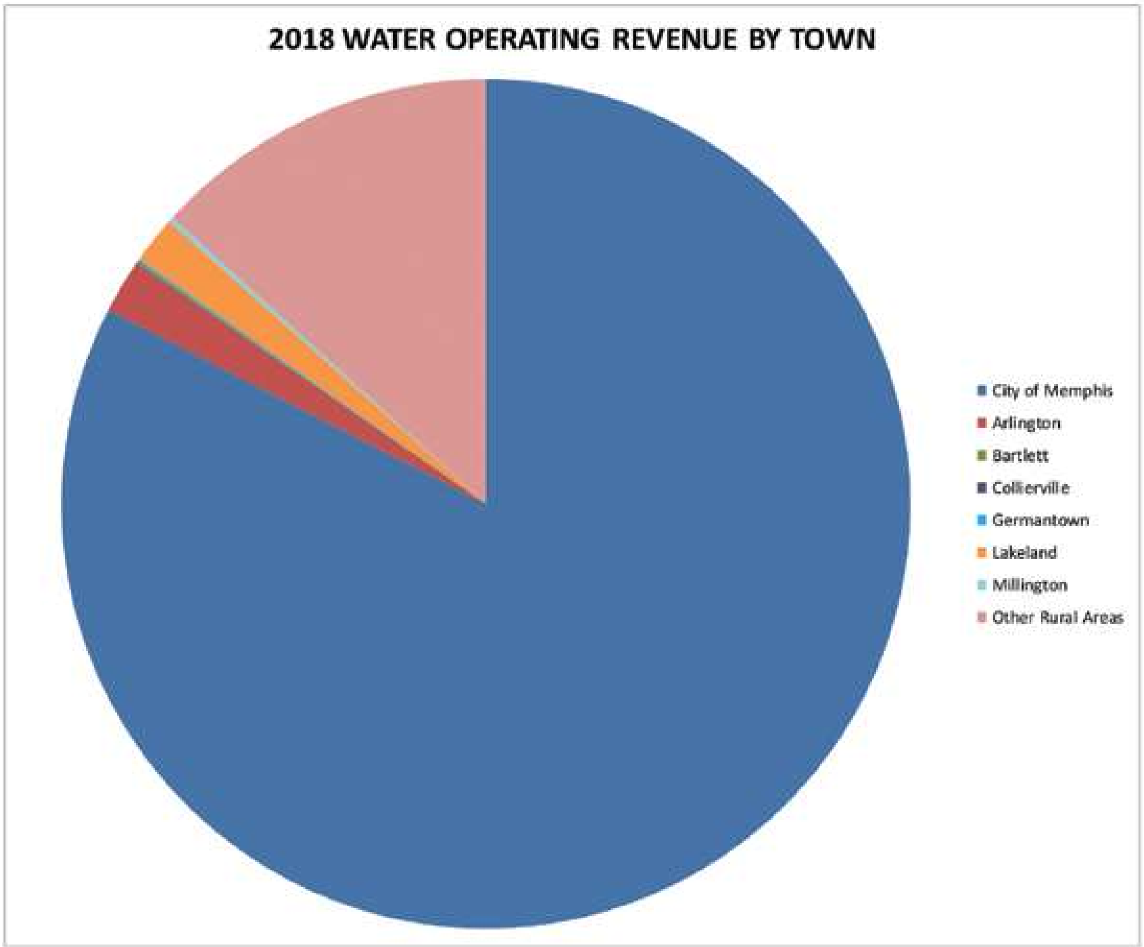
Operating Statistics by Towns:

	GAS AMOUNT			GAS MCF		
	2018	2017	2016	2018	2017	2016
City of Memphis	$ 206,081	$ 174,012	$ 155,671	26,731	20,122	20,940
Arlington	3,284	2,481	2,444	474	331	370
Bartlett	14,137	10,705	10,224	1,969	1,361	1,438
Collierville	13,233	10,259	10,125	1,929	1,400	1,541
Germantown	11,610	8,953	8,718	1,726	1,247	1,360
Lakeland	2,829	2,265	1,939	404	300	281
Millington	2,723	2,216	2,036	390	305	314
Other Rural Areas	20,291	15,512	14,719	2,834	1,976	2,097
Total	$ 274,188	$ 226,403	$ 205,876	36,457	27,042	28,341

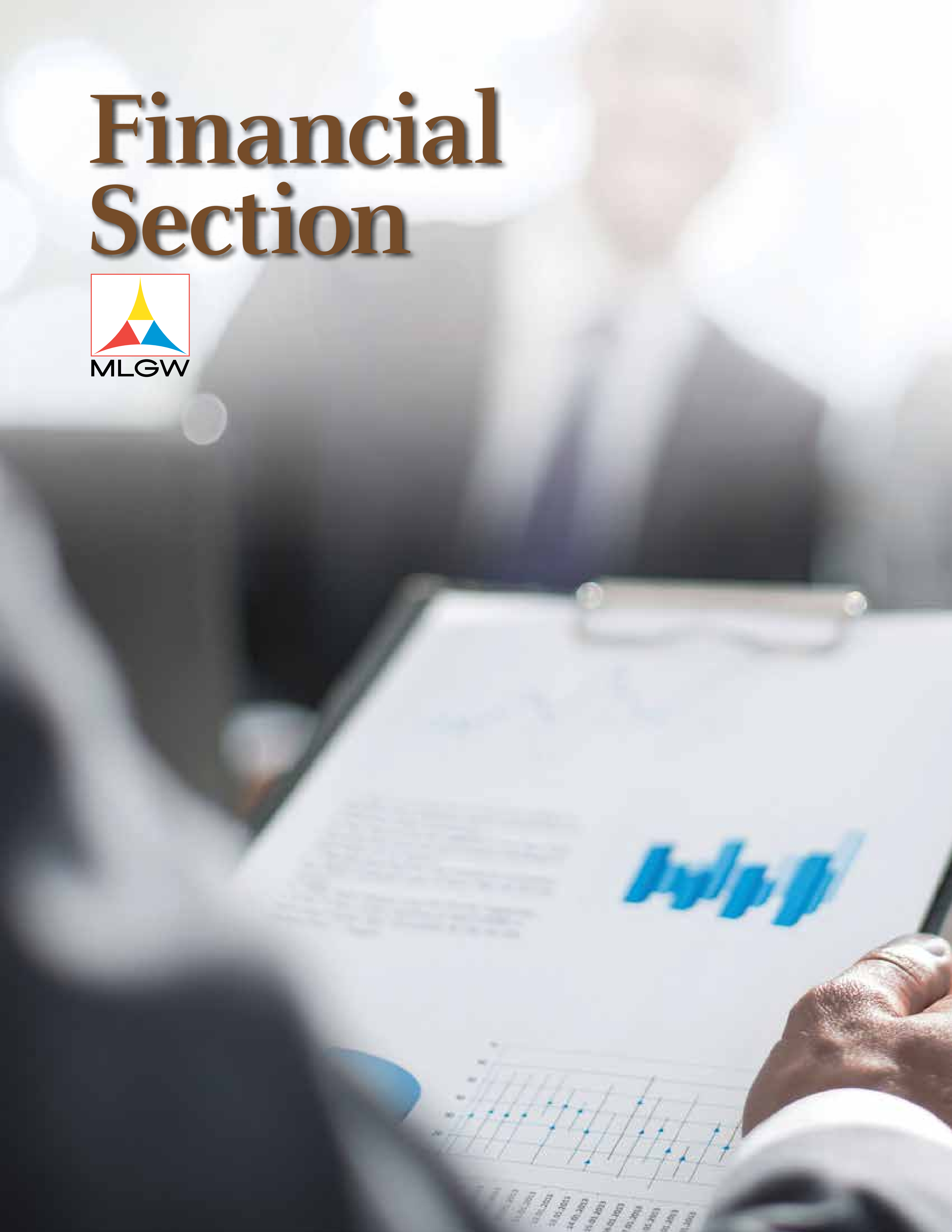


Operating Statistics by Towns:

	WATER AMOUNT			WATER CCF		
	2018	2017	2016	2018	2017	2016
City of Memphis	$ 81,762	$ 83,144	$ 82,677	44,103	42,499	43,243
Resale to Other Municipalities:						
Arlington	2,054	1,849	1,916	640	566	605
Bartlett	49	49	48	3	3	3
Collierville	1	-	160	-	-	46
Germantown	99	111	108	24	32	32
Lakeland	1,789	1,700	1,734	553	525	543
Millington	206	184	179	56	51	62
Other Rural Areas	13,091	12,476	13,025	4,064	3,865	4,197
Total	$ 99,051	$ 99,513	$ 99,847	49,443	47,541	48,731



Financial Section



MHM

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Independent Auditor's Report

To the Board of Commissioners and Management
Memphis Light, Gas and Water Division
Memphis, Tennessee

Report on the Financial Statements

We have audited the accompanying financial statements of the Electric, Gas and Water Divisions (the "Divisions") of Memphis Light, Gas and Water Division, enterprise funds of the City of Memphis, Tennessee, as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the Divisions' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The Divisions' 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 opinions 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 Divisions' 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 entity'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 opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Electric, Gas and Water Divisions of Memphis Light, Gas and Water Division as of December 31, 2018 and 2017, and the changes in their financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in note 1, the financial statements present only the Electric, Gas and Water Divisions of Memphis Light, Gas and Water Division, and do not purport to, and do not, present fairly the financial position of the City of Memphis, Tennessee, as of December 31, 2018 and 2017, and the changes in its financial position, or, where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

As discused in note 8, the Divisions adopted Govermental Accounting Standards Board (GASB) No. 75, *Accounting and Financial Reporting for Post Employment Benefits Other than Pensions*. Our opinion is not modified in respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis; schedule of changes in net pension liability (asset); schedule of employer contributions - pension; schedule of changes in net OPEB liability; and the schedule of employer contributions - OPEB, on the pages listed in the table of contents, 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 audits 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 audits were conducted for the purpose of forming opinions on the basic financial statements of each Division. The introductory section and supplemental information on the pages listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The schedule of bonds, principal and interest requirements; schedule of current utility rates; non-revenue water; and schedule of insurance are required by the State of Tennessee Comptroller of the Treasury's *Audit Manual*.

The supplementary information shown as the schedule of bonds, principal and interest requirements and the schedule of additions and retirements to utility plant is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, this supplementary information is fairly stated, in all material respects in relation to the basic financial statements as a whole.

The introductory section and supplementary information shown as the schedule of current utility rates, non-revenue water, and schedule of insurance have 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 them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 5, 2019, on our consideration of the Divisions' internal control over financial reporting and on our tests of their compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Divisions' 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 Divisions' internal control over financial reporting and compliance.

Mayer Hoffman McCann P.C.

Memphis, Tennessee
June 5, 2019

The following management discussion and analysis ("MD&A") for the Electric, Gas, and Water Divisions of Memphis Light, Gas and Water Division ("MLGW") is intended as an introduction and should be read in conjunction with the financial statements and the notes that follow this section.

Highlights

- On March 20, 2018, Memphis Mayor Jim Strickland officially swore in Jarl "J.T." Young as the 11th President and Chief Executive Officer to lead Memphis Light, Gas and Water Division.

- By the end of 2018, MLGW and its installation contractor had installed about 80% of the 1 million smart meters needed to replace digital and analog meters throughout Shelby County. Nearly every residential customer has a smart electric meter while residential smart gas and water meters continue to be installed, along with smart electric, gas, and water meters for businesses and organizations. MLGW is on track to meet its 2020 goal of full deployment.

- MLGW did not issue any debt in 2018, but does continue to hold strong credit ratings. Additionally, the last maturity of the original Tennessee Valley Authority ("TVA") Prepay Subordinate Lien Debt was retired. The Electric Division's Senior Lien Series bonds continue to maintain an Aa2 by Moody's Investors Service ("Moody's") and AA by Standard & Poor's Ratings Services ("S&P"). Senior Lien means a lien on one or more categories of revenues that entitles the beneficiaries of such lien to have a claim on such revenues prior to any other person and ahead of the use of such revenues for any purpose other than payment of operating expenses provided one or more series of revenue obligations, contracts and related beneficiaries may have parity Senior Liens on the same categories of revenues pursuant to the terms of the bond resolution. With the expiration of the TVA Prepay Subordinate Lien debt, the Electric Division only has Senior Lien Debt remaining. The Gas Division's bonds continue to maintain an Aa1 by Moody's and AA- by S&P. The Water Division's bonds continue to maintain an Aa1 by Moody's and AAA by S&P. The AAA rating is the highest rating given by S&P. Both Moody's and S&P reaffirmed their long-term ratings for the Water Division at Aa1 and AAA respectively.

- The new TVA gas-fired generation plant began supplying power to the grid in April 2018 and is projected to be MLGW's largest transport gas customer. MLGW will also supply TVA with the cooling water it needs to operate the plant – an average of 3.5 million gallons per day.

- MLGW surpassed its goal of $5 million in liquefied natural gas sales revenue this year. LNG sales revenue reached $6.3 million at year–end and 2018 unit sales increased over 2017 by 48%. At the end of 2018, MLGW surpassed $30 million in revenue since inception.

- MLGW received the Governor's Environmental Stewardship Award (Pursuit of Excellence). The award recognized MLGW for success in providing 100% renewable vehicle fuel in the form of Compressed Natural Gas and Liquefied Natural Gas.

- For the sixth time, MLGW earned a Diamond Level designation in the American Public Power Association's Reliable Power Provider Program which recognizes utilities that demonstrate high proficiency in reliability, safety, workforce development, and system improvements.

- MLGW continues to be intentional in its efforts to encourage the growth of minority, women, and locally owned small business enterprises by providing opportunities for MWBE/LSBs to furnish goods and services through MLGW's Supplier Diversity Program. MLGW spent $66.3 million with MWBE/LSBs during 2018.

Overview of the Financial Statements

MLGW's financial statements are comprised of the Statements of Net Position; the Statements of Revenues, Expenses and Changes in Net Position; the Statements of Cash Flows; and the accompanying Notes. This report also contains required and supplemental information in addition to the basic financial statements.

The Statements of Net Position report the assets and deferred outflows of resources less liabilities and deferred inflows of resources, with the difference being the net position. Net position will be displayed in three components: net investment in capital assets, restricted, and unrestricted. Over time, increases or decreases in net position may serve as an indicator of whether the financial position of the organization is improving or declining. The Statements of Revenues, Expenses and Changes in Net Position show how net position changed during each year based on revenues and expenses. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. The Statements of Cash Flows report changes in cash and cash equivalents summarized by net changes from operating, capital and related financing and investing activities. The Notes provide additional detailed information to support the financial statements. The statements present the current year and preceding year for comparison. The report also includes Statistical Highlights: these highlights convey significant data that afford the reader a better historical perspective and assist in assessing the current financial status and trends of MLGW. The highlights present a three-year comparison encompassing the current year and the preceding two years for the Electric, Gas, and Water Divisions.

MLGW comprises the utility operations of the City of Memphis. Pursuant to the Memphis City Charter, MLGW is required to maintain separate books and accounts of the electric, gas, and water operations, so that said books and accounts reflect the financial condition of each division separately, to the end that each division shall be self-sustaining.

Costs are allocated to the three divisions in a manner that ensures results of operations and changes in financial position are presented fairly and consistently from year to year.

MLGW's financial statements are provided to the City of Memphis and reformatted to conform to the City's format for enterprise funds. The City of Memphis incorporates MLGW's statements ending December 31 into its statements ending June 30.

STATISTICAL HIGHLIGHTS-ELECTRIC DIVISION

Years Ended December 31

CATEGORIES	2018	2017	2016
OPERATING REVENUE			
Residential	$ 540,654,354	$ 490,018,631	$ 505,811,638
Commercial - General Service	597,183,375	585,741,219	585,812,041
Industrial	94,610,010	98,508,276	95,656,535
Outdoor Lighting and Traffic Signals	11,616,880	11,410,983	11,330,518
Street Lighting Billing	13,296,087	13,180,372	13,076,088
Interdepartmental	8,879,495	8,244,320	8,117,897
Green Power	(273,991)	(240,957)	(255,347)
Miscellaneous	35,180,634	28,895,434	30,505,018
Accrued Unbilled Revenue	(6,504,269)	3,864,761	6,309,242
Revenue Adjustment for Uncollectibles	(4,736,014)	(5,549,465)	(6,828,137)
TOTAL OPERATING REVENUE	$ 1,289,906,561	$ 1,234,073,574	$ 1,249,535,493
CUSTOMERS (See Note at page M-5)			
Residential	368,848	370,693	366,265
Commercial - General Service	43,319	43,469	43,373
Industrial	118	118	133
Outdoor Lighting and Traffic Signals	17,171	17,186	17,004
Interdepartmental	43	36	41
Total Customers	429,499	431,502	426,816
KWH SALES (THOUSANDS)			
Residential	5,596,144	5,042,850	5,322,901
Commercial - General Service	6,264,086	6,138,759	6,286,966
Industrial	1,865,158	1,870,301	1,859,280
Outdoor Lighting and Traffic Signals	88,940	89,244	88,928
Street Lighting Billing	76,823	76,117	75,141
Interdepartmental	101,938	90,910	88,627
Total KWH Sales (Thousands)	13,993,089	13,308,181	13,721,843
OPERATING REVENUE/CUSTOMER			
Residential	$ 1,465.79	$ 1,321.90	$ 1,381.00
Commercial - General Service	13,785.71	13,474.92	13,506.38
Industrial	801,779.75	834,815.90	719,222.07
Outdoor Lighting and Traffic Signals	676.54	663.97	666.34
Interdepartmental	206,499.87	229,008.89	197,997.49
OPERATING REVENUE/KWH*			
Residential	$ 0.097	$ 0.097	$ 0.095
Commercial - General Service	0.095	0.096	0.093
Industrial	0.051	0.053	0.051
Outdoor Lighting and Traffic Signals	0.131	0.128	0.127
Street Lighting Billing	0.173	0.173	0.174
Interdepartmental	0.087	0.091	0.092
KWH/CUSTOMER			
Residential	15,171.95	13,603.84	14,532.92
Commercial - General Service	144,603.66	141,221.54	144,951.14
Industrial	15,806,423.73	15,850,008.47	13,979,548.87
Outdoor Lighting and Traffic Signals	5,179.66	5,192.83	5,229.83
Interdepartmental	2,370,651.16	2,525,277.78	2,161,634.15

**See graph on M-6.*

STATISTICAL HIGHLIGHTS-GAS DIVISION

Years Ended December 31

CATEGORIES		2018		2017		2016
OPERATING REVENUE						
Residential	$	163,500,978	$	126,870,403	$	120,179,376
Commercial - General Service		74,766,266		59,846,939		55,227,388
Industrial		2,051,696		1,699,136		1,681,543
Interdepartmental		202,083		238,872		172,754
Transported Gas		10,002,561		7,765,697		6,350,515
Spot Gas		7,711,270		7,125,396		6,388,974
Liquefied Natural Gas (LNG)		6,302,664		4,469,127		4,571,710
Compressed Natural Gas (CNG)		263,091		158,607		107,847
Miscellaneous		13,668,952		15,508,704		8,439,778
Accrued Unbilled Revenue		(2,935,049)		4,469,213		4,161,055
Revenue Adjustment for Uncollectibles		(1,346,852)		(1,749,310)		(1,404,506)
TOTAL OPERATING REVENUE	$	274,187,660	$	226,402,784	$	205,876,434
CUSTOMERS (See Note at page M-5)						
Residential		290,918		292,019		289,592
Commercial - General Service		21,525		21,621		21,634
Industrial		33		30		31
Interdepartmental		14		12		12
Transported Gas		41		81		98
Spot Gas		21		23		33
Subtotal		312,552		313,786		311,400
LNG		5		3		3
CNG (Sales Transactions)		388		297		212
Total Customers		312,945		314,086		311,615
MCF SALES						
Residential		22,439,731		15,824,781		16,713,964
Commercial - General Service		11,640,262		9,099,362		9,308,766
Industrial		423,747		370,190		405,442
Interdepartmental		35,649		44,633		35,733
Spot Gas		1,917,677		1,703,336		1,877,488
Subtotal		36,457,066		27,042,302		28,341,393
LNG		847,645		574,294		654,780
CNG		19,819		15,552		10,949
Total MCF Sales		37,324,530		27,632,148		29,007,122
OPERATING REVENUE/CUSTOMER						
Residential	$	562.02	$	434.46	$	415.00
Commercial - General Service		3,473.46		2,768.00		2,552.81
Industrial		62,172.61		56,637.87		54,243.32
Interdepartmental		14,434.47		19,906.01		14,396.17
Transported Gas		243,964.90		95,872.80		64,801.17
Spot Gas		367,203.35		309,799.81		193,605.29
OPERATING REVENUE/MCF*						
Residential	$	7.290	$	8.017	$	7.190
Commercial - General Service		6.420		6.577		5.933
Industrial		4.840		4.590		4.147
Interdepartmental		5.670		5.352		4.835
Spot Gas		4.020		4.183		3.403
MCF/CUSTOMER						
Residential		77.13		54.19		57.72
Commercial - General Service		540.78		420.86		430.28
Industrial		12,840.82		12,339.68		13,078.77
Interdepartmental		2,546.36		3,719.42		2,977.75
Spot Gas		91,317.95		74,058.09		56,893.58

**See graph on M-6.*

STATISTICAL HIGHLIGHTS-WATER DIVISION

Years Ended December 31

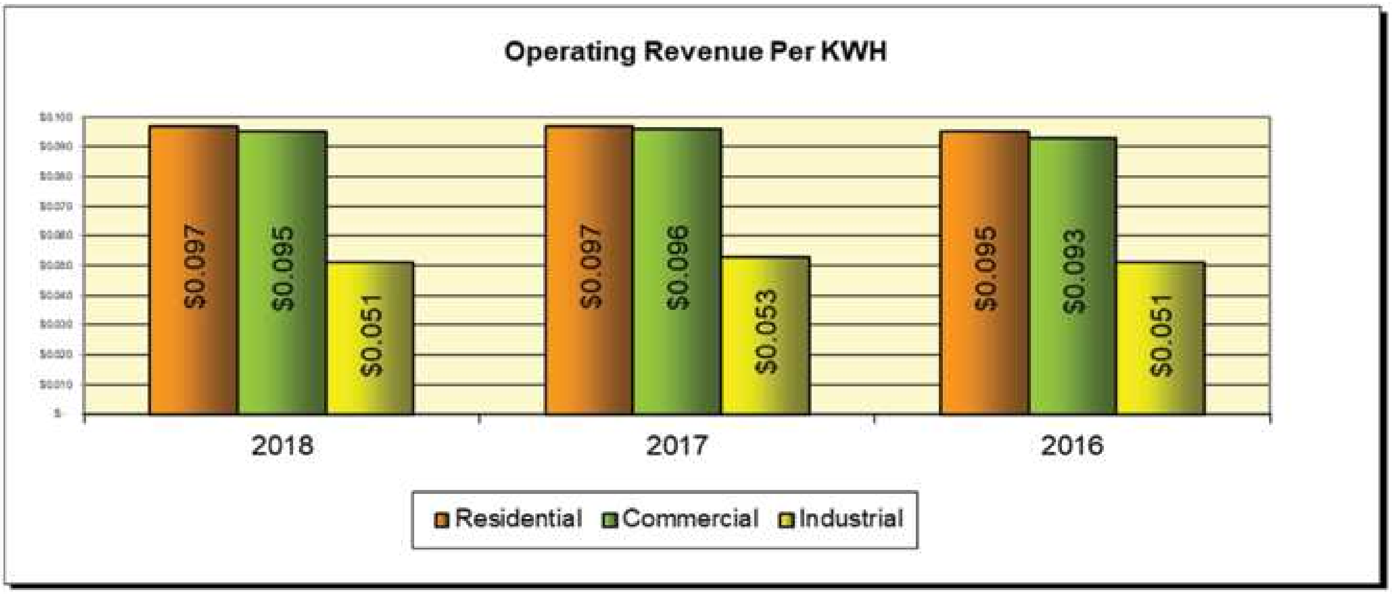
CATEGORIES	2018	2017	2016
OPERATING REVENUE			
Residential	$ 50,118,689	$ 48,029,486	$ 49,486,005
Commercial - General Service	43,511,198	42,060,419	42,137,657
Resale	133,409	133,360	255,521
Fire Protection	5,221,165	5,102,740	5,056,147
Interdepartmental	66,316	118,612	55,699
Miscellaneous	5,462,018	4,815,982	3,611,421
Accrued Unbilled Revenue	(473,184)	256,154	340,781
Revenue Adjustment for Uncollectibles	(899,523)	(1,003,826)	(1,095,891)
TOTAL OPERATING REVENUE	$ 103,140,088	$ 99,512,927	$ 99,847,340
CUSTOMERS (See Note below)			
Residential	228,471	229,285	227,171
Commercial - General Service	20,422	20,625	20,580
Resale	11	12	12
Fire Protection	5,263	5,347	5,297
Interdepartmental	55	50	49
Total Customers	254,222	255,319	253,109
METERED WATER (CCF)			
Residential	22,596,541	21,419,459	22,442,729
Commercial - General Service	26,806,056	26,029,425	26,146,652
Resale	14,736	14,896	122,936
Interdepartmental	25,180	76,836	19,093
Total CCF Sales	49,442,513	47,540,616	48,731,410
OPERATING REVENUE/CUSTOMER			
Residential	$ 219.37	$ 209.48	$ 217.84
Commercial - General Service	2,130.60	2,039.29	2,047.51
Resale	12,128.13	11,113.30	21,293.42
Fire Protection	992.05	954.32	954.53
Interdepartmental	1,205.74	2,372.24	1,136.71
OPERATING REVENUE/CCF*			
Residential	$ 2.218	$ 2.242	$ 2.205
Commercial - General Service	1.623	1.616	1.612
Resale	9.053	8.953	2.078
Interdepartmental	2.634	1.544	2.917
CCF/CUSTOMER			
Residential	98.90	93.42	98.79
Commercial - General Service	1,312.61	1,262.03	1,270.49
Resale	1,339.64	1,241.33	10,244.67
Interdepartmental	457.82	1,536.72	389.65

**See graph on M-7.*

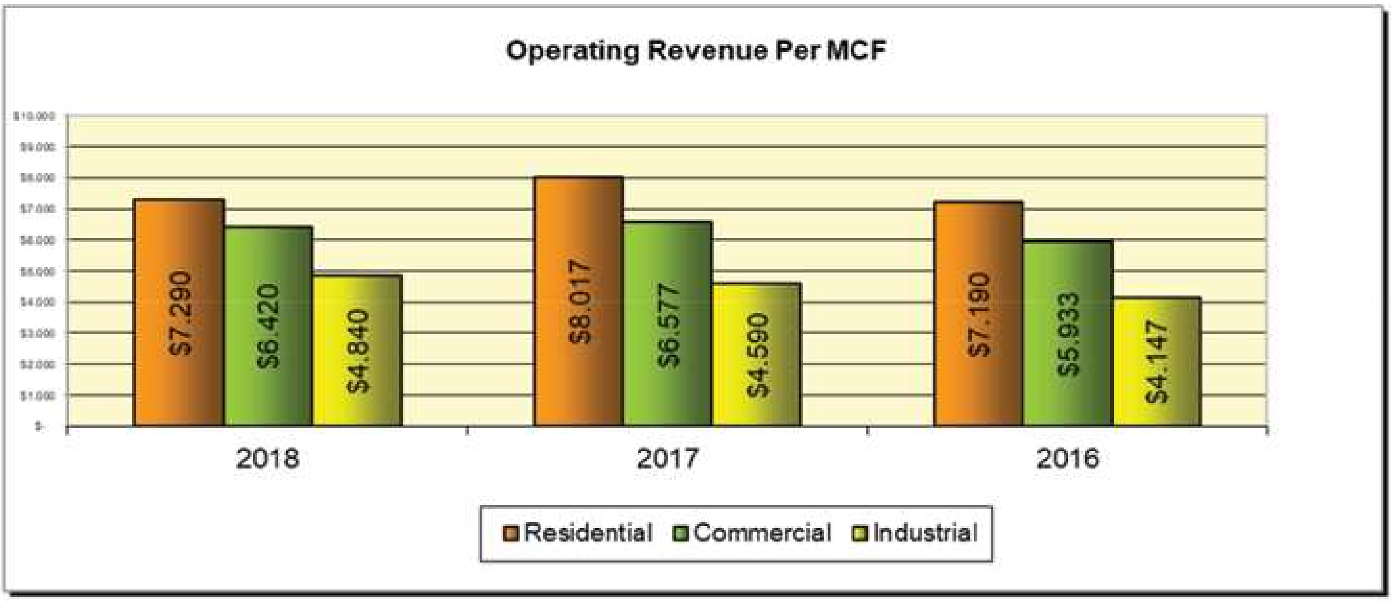
Note: In September 2018, MLGW introduced a more accurate method of counting customers which decreased the reported customer totals. Under the old method certain customers who received multiple bills in a billing month were counted more than once. Under the new method customers who receive multiple bills in a billing month are counted only once.

GRAPHS

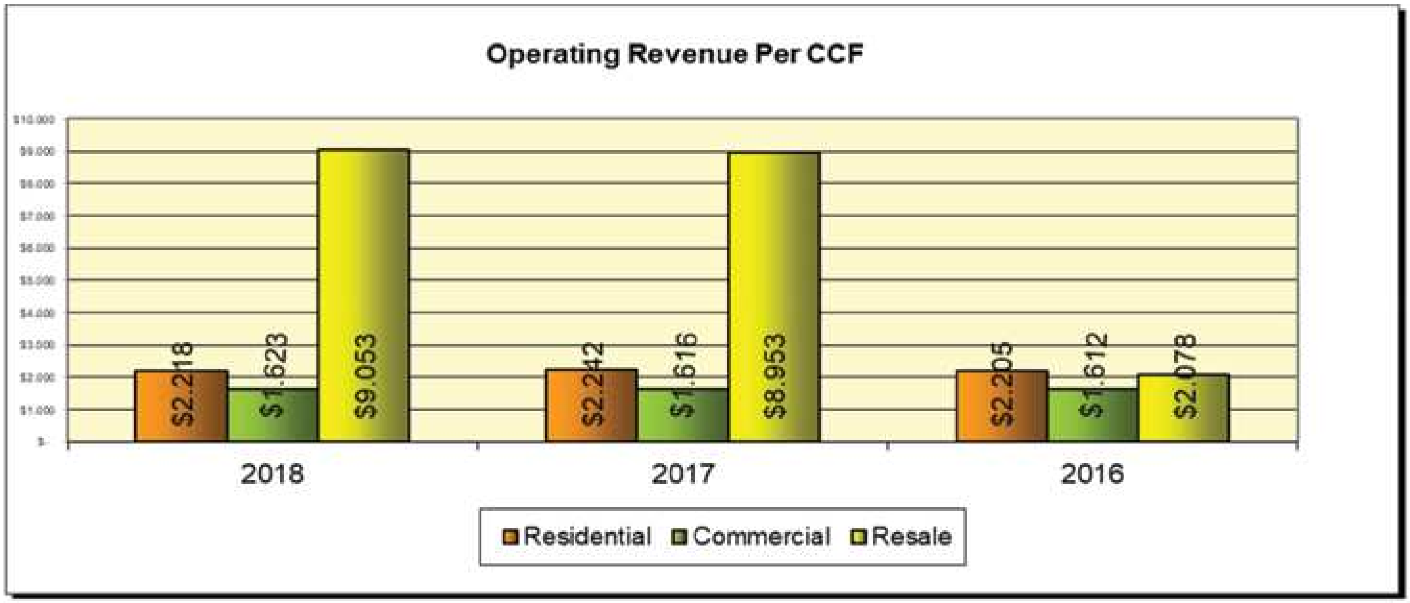
Electric Division



Gas Division



Water Division



Bond Ratings

MLGW's Electric Division, Gas Division and Water Division continue to maintain strong bond ratings. In March of 2019, Moody's completed a periodic review of the Electric Division which involved a portfolio review in which Moody's reassessed the appropriateness of the ratings assigned. On May 23, 2019, S&P Global Ratings lowered its long-term rating on MLGW's senior lien electric system revenue debt to 'AA-' from 'AA'. The outlook is stable.

During 2018 the final maturity of the Electric Division prepay subordinate lien debt was retired closing out all debt associated with the subordinate lien. The Electric Division has total debt outstanding of $185,520 as of December 31, 2018. MLGW's debt service coverage is 14.10. This coverage is well above the 1.2 required by the Electric Division bond covenant for the senior lien debt.

The Gas Division has total debt outstanding of $76,160 as of December 31, 2018. The Gas Division's debt service coverage is 8.07. This coverage is well above the 1.2 required by the Gas Division bond covenant.

The Water Division has debt outstanding of $64,540 as of December 31, 2018. The Water Division's debt service coverage is 4.38. This coverage is well above the 1.2 required by the Water Division bond covenant.

The following tables show MLGW bond ratings and debt administration for the Electric, Gas and Water Divisions as of December 31, 2018:

Figure 1: Bond Ratings and Debt Administration for the Electric, Gas and Water Divisions

MLGW Bond Ratings		
	S&P	**Moody's**
Electric Series		
2014	AA	Aa2
2016	AA	Aa2
2017	AA	Aa2
Gas Series		
2016	AA-	Aa1
2017	AA-	Aa1
Water Series		
2014	AAA	Aa1
2016	AAA	Aa1
2017	AAA	Aa1

Debt Administration (In Thousands)		
	Outstanding Balance	**Coverage**
Electric	$185,520	14.10
Gas	$76,160	8.07
Water	$64,540	4.38

Analysis of the Electric Division's Statements of Net Position

Condensed financial information comparing the Electric Division's net position for the past three fiscal years is presented below:

Table 1
Electric Division Condensed Statements of Net Position
December 31
(In Thousands)

	2018	2017	FY18 - FY17 Percentage Change	2016	FY17 - FY16 Percentage Change
Current assets (excluding restricted funds)	$ 428,680	$ 494,833	-13.4%	$ 487,560	1.5%
Restricted assets	66,423	104,747	-36.6%	67,923	54.2%
Other assets	38,584	13,987	175.9%	11,210	24.8%
Prepaid power cost - long-term	-	-	-	112,821	-100.0%
Utility plant	1,129,626	1,109,598	1.8%	1,079,463	2.8%
Total assets	1,663,313	1,723,165	-3.5%	1,758,977	-2.0%
Deferred outflows of resources					
Employer pension contribution	13,305	12,790	4.0%	12,271	4.2%
Employer OPEB contribution	29,383	-	100.0%	-	-
Pension liability experience	3,137	870	260.6%	1,088	-20.0%
OPEB liability experience	1,837	-	100.0%	-	-
Pension investment earnings experience	20,562	29,506	-30.3%	39,341	-25.0%
Unamortized balance of refunded debt	-	409	-100.0%	1,499	-72.7%
Total assets and deferred outflows	1,731,537	1,766,740	-2.0%	1,813,176	-2.6%
Current liabilities payable from current assets	217,830	271,737	-19.8%	276,460	-1.7%
Current liabilities payable from restricted assets	28,958	35,513	-18.5%	33,587	5.7%
Long-term debt	202,189	213,179	-5.2%	243,701	-12.5%
Non-current liabilities	183,606	72,160	154.4%	81,955	-12.0%
Total liabilities	632,583	592,589	6.7%	635,703	-6.8%
Deferred inflows of resources					
Pension liability experience	7,787	10,093	-22.8%	6,252	61.4%
Pension changes of assumptions	4,422	6,346	-30.3%	8,462	-25.0%
OPEB changes of assumptions	100,185	-	100.0%	-	-
Pension investment earnings experience	60,048	5,245	1044.9%	197	2562.4%
OPEB investment earnings experience	14,931	-	100.0%	-	-
Total liabilities and deferred inflows	819,956	614,273	33.5%	650,614	-5.6%
Net position:					
Net investment in capital assets	921,736	892,669	3.3%	958,213	-6.8%
Restricted	20,400	52,963	-61.5%	19,155	176.5%
Unrestricted	(30,555)	206,835	-114.8%	185,194	11.7%
Total Net position	$ 911,581	$ 1,152,467	-20.9%	$ 1,162,562	-0.9%

Assets

2018 Compared to 2017:

As of December 31, 2018, total assets and deferred outflows were $1.73 billion, a decrease of $35.2 million, or 2.0%, compared to December 31, 2017. This decrease is primarily due to a decrease in current assets of $66.2 million, a decrease in restricted assets of $38.3 million due primarily to the utilization of the proceeds of the Series 2017 revenue bonds of $33.1 million, and a decrease in pension investment earnings experience of $8.9 million, partially offset by an increase in Employer OPEB contribution of $29.4 million, an increase in other assets of $24.6 million, and an increase in net utility plant of $20.0 million. The decrease in current assets is due, in part, to a decrease in prepaid power cost (long-term) of $112.8 million (see Note 12), offset by an increase in cash and cash equivalents of $33.0 million and an increase in investments of $15.2 million.

2017 Compared to 2016:

As of December 31, 2017, total assets and deferred outflows were $1.77 billion, a decrease of $46.4 million, or 2.6%, compared to December 31, 2016. This decrease is primarily due to a decrease in prepaid power cost (long-term) of $112.8 million (see Note 12) and a decrease in pension investment earnings experience of $9.8 million, partially offset by an increase in restricted assets of $36.8 million due primarily to the increase in proceeds due to the issuance of the Series 2017 revenue bonds of $33.1 million, an increase in net utility plant of $30.1 million, an increase in current assets of $7.3 million, and an increase in other assets of $2.8 million. The increase in current assets is due, in part, to a decrease of $10.6 million in the allowance for doubtful accounts related to a customer account settlement agreement and an increase in inventories of $7.1 million, offset by a decrease in cash and cash equivalents of $8.3 million and a decrease in investments of $7.2 million.

Capital Assets and Construction Activities

2018 Compared to 2017:

The Electric Division's utility plant assets, net of accumulated depreciation totaled $1.13 billion as of December 31, 2018, an increase of 1.8% over fiscal year 2017. During 2018, the Electric Division expended $83.8 million on construction activities and capital purchases, a decrease of $17.5 million or 17.3% compared to fiscal year 2017. Major Electric Division construction activities included substation and transmission projects ($19.9 million), extensions to serve new customers ($11.5 million), the purchase of meters and metering equipment ($10.4 million), data processing equipment and upgrades ($7.8 million), the purchase of distribution and network transformers ($6.4 million), purchase of transportation and power operated equipment ($5.9 million), and street and leased outdoor lighting ($4.2 million). Other significant Electric Division capital expenditures consisted of new circuits out of substations ($2.6 million), the replacement of feeder and defective cable ($2.3 million), and relocation of extensions requested by customers ($2.2 million).

2017 Compared to 2016:

The Electric Division's utility plant assets, net of accumulated depreciation were $1.11 billion as of December 31, 2017, an increase of 2.8% over fiscal year 2016. During 2017, the Electric Division expended $101.4 million on construction activities and capital purchases, an increase of $7.2 million, or 7.6%, compared to fiscal year 2016. Major Electric Division construction activities included the purchase of meters and metering equipment ($27.0 million), substation and transmission projects ($10.3 million), the purchase of distribution and network transformers ($6.7 million), purchase of transportation and power operated equipment ($6.0 million), street and leased outdoor lighting ($5.6 million), data processing equipment and upgrades ($3.8 million), and extensions to serve new customers ($9.5 million). Other significant Electric Division capital expenditures consisted of the replacement of feeder and defective cable ($3.0 million), new circuits out of substations ($2.2 million), and building and structures ($1.4 million).

Liabilities

2018 Compared to 2017:

As of December 31, 2018, total liabilities and deferred inflows were $820.0 million, an increase of $205.7 million, or 33.5% compared to December 31, 2017. These increases are due to the increase in non-current liabilities of $111.4 million, an increase of OPEB changes of assumptions of $100.2 million, and an increase in pension investment earnings experience of $54.8 million, offset in part by a decrease in current liabilities payable from current assets of $53.9 million. The increase in non-current liabilities is due to the increase of net OPEB liability of $152.0 million and a decrease of net pension liability of $39.8 million.

2017 Compared to 2016:

As of December 31, 2017, total liabilities and deferred inflows were $614.3 million, representing a $36.3 million (5.6%) decrease compared to $650.6 million at December 31, 2016. These decreases are attributable to decreases in long-term debt of $30.5 million, non-current liabilities of $9.8 million due to a decrease in the net pension liability-long term of $10.2 million, current liabilities payable from current assets of $4.7 million, and pension changes of assumptions of $2.1 million, offset in part by increases in pension investment earnings experience of $5.0 million and pension liability experience of $3.8 million. The decrease in long-term debt is due to a reclassification of the balance of long-term debt for the Series 2008 and Series 2010 Bonds to the current portion of debt of $120.4 million, offset by an increase in the long-term portion due to the issuance of Series 2017 Bonds of $87.1 million and an increase in premium amortization of $6.6 million (see Note 11).

Net Position

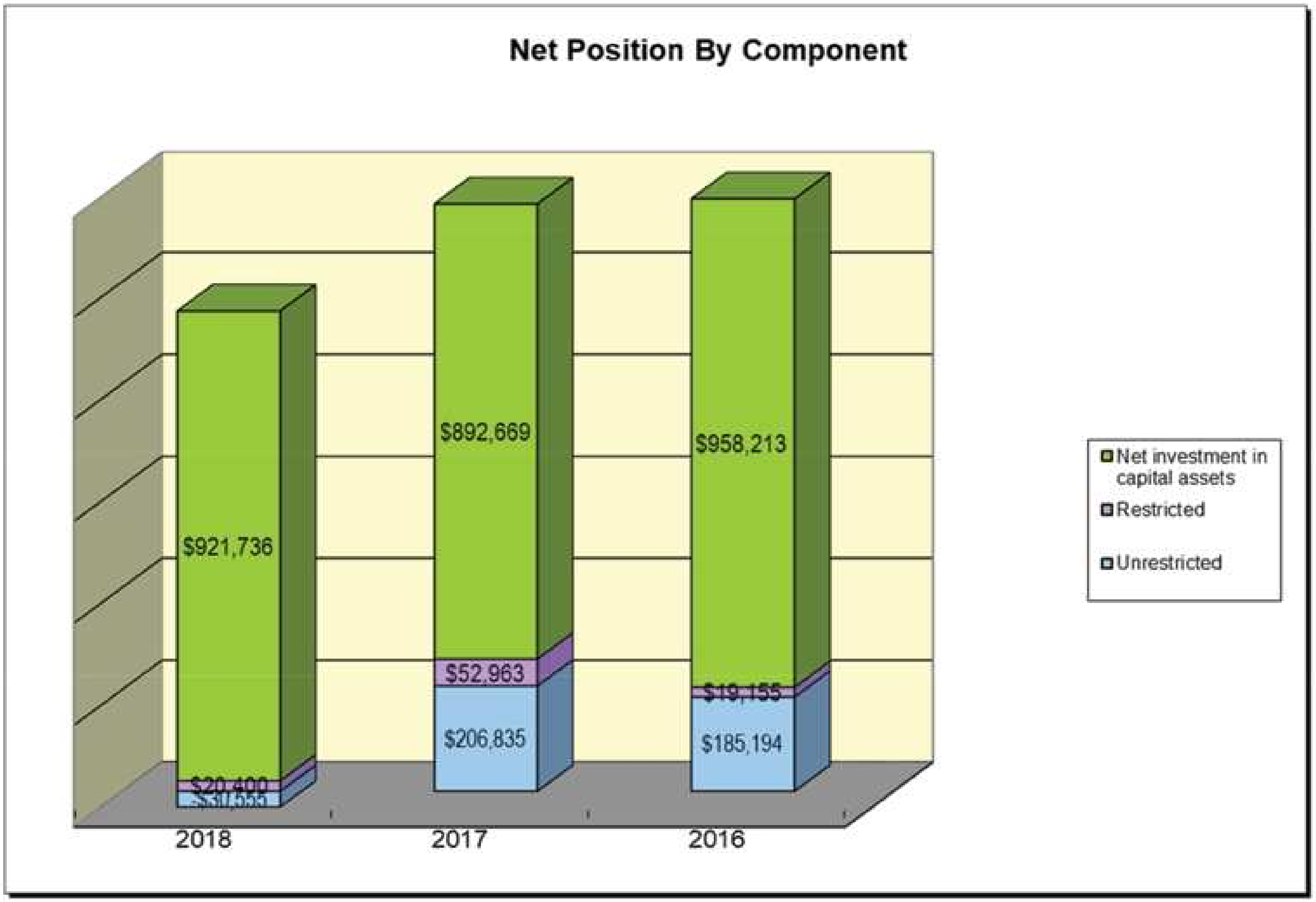
2018 Compared to 2017:

As of December 31, 2018 the Electric Division's total net position (total assets and deferred outflows of resources less total liabilities and deferred inflows of resources) was $911.6 million, a decrease of $240.9 million, or 20.9%, compared to December 31, 2017. The decrease was due to a decrease in unrestricted net position of $237.4 million as a result of the cumulative impact of implementing of GASB Statement No. 75 – *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75") and a decrease in restricted net position of $32.6 million due to a reduction in the proceeds of the Series 2017 Bonds, partially offset by an increase in net investment in capital assets of $29.1 million. One hundred and one percent of the net position was related to net investment in capital assets.

2017 Compared to 2016:

As of December 31, 2017 the Electric Division's total net position (total assets and deferred outflows of resources less total liabilities and deferred inflows of resources) was $1.15 billion, a decrease of $10.1 million, or 0.9%, compared to December 31, 2016. The decrease was due to a decrease in net investment in capital assets of $65.5 million, offset by an increase in restricted net position of $33.8 million due to the issuance of the Series 2017 Bonds and an increase in unrestricted net position (used to finance day-to-day operations) of $21.6 million. Seventy-seven percent of the net position was related to net investment in capital assets.

Figure 2: Electric Division's Net Position (in thousands):



Analysis of the Electric Division's Statements of Revenues, Expenses and Changes in Net Position

Condensed financial information comparing the Electric Division's revenues, expenses and changes in net position for the past three fiscal years is presented below:

Table 2
Electric Division
Condensed Statements of Revenues, Expenses and Changes in Net Position
Years Ended December 31, 2018, 2017, and 2016

	2018	2017	FY18 - FY17 Percentage Change	2016	FY17 - FY16 Percentage Change
Revenues:					
Operating revenues	$ 1,289,906	$ 1,234,074	4.5%	$ 1,249,535	-1.2%
Non-operating revenues	47,951	47,353	1.3%	50,222	-5.7%
Total revenues	1,337,857	1,281,427	4.4%	1,299,757	-1.4%
Expenses:					
Depreciation expense	55,844	54,148	3.1%	50,902	6.4%
Purchased power	1,035,898	991,526	4.5%	1,018,157	-2.6%
Other operating expense	146,021	191,135	-23.6%	187,927	1.7%
Non-operating expense	10,357	13,032	-20.5%	15,491	-15.9%
Total expenses	1,248,120	1,249,841	-0.1%	1,272,477	-1.8%
Income before contributions in aid of construction and transfers	89,737	31,586	184.1%	27,280	15.8%
Contributions in aid of construction	17,315	27,553	-37.2%	10,445	163.8%
Reduction of plant costs recovered through contributions in aid of construction	(17,315)	(27,553)	37.2%	(10,445)	-163.8%
Transfers to City of Memphis	(40,393)	(41,681)	3.1%	(39,994)	4.2%
Change in net position	$ 49,344	$ (10,095)	588.8%	$ (12,714)	20.6%
Net position, beginning of year	$ 1,152,467	$ 1,162,562	-0.9%	$ 1,175,276	-1.1%
Change in method of accounting for OPEB	(290,230)	-	-100.0%	-	-
Change in net position	49,344	(10,095)	588.8%	(12,714)	20.6%
Net position, end of year	$ 911,581	$ 1,152,467	-20.9%	$ 1,162,562	-0.9%

Change in Net Position

2018 Compared to 2017:

The change in net position is $49.3 million, up $59.4 million from a loss of $10.1 million at December 31, 2017. This increase is primarily due to an increase in operating margin (operating revenue less power cost) of $11.5 million, a decrease in other operating expense of $45.1 million and a decrease in Transfers to the City of Memphis of $1.3 million, offset in part by an increase in depreciation expense of $1.7 million.

2017 Compared to 2016:

The change in net position is a loss of $10.1 million, up $2.6 million from a loss of $12.7 million at December 31, 2016. This increase is primarily due to an increase in operating margin (operating revenue less power cost) of $11.2 million and a decrease in non-operating expense of $2.5 million, offset by an increase in depreciation expense of $3.2 million, an increase in other operating expense of $3.2 million, a decrease in non-operating revenues of $2.9 million and an increase in Transfers to the City of Memphis of $1.7 million.

Revenues

2018 Compared to 2017:

Total revenues were $1.34 billion for fiscal year 2018, an increase of $56.4 million, or 4.4%, from fiscal year 2017. Operating revenues were $1.29 billion in 2018, an increase of $55.8 million from 2017. The increase in operating revenue is due primarily to higher sales volume and the TVA 1.5% rate increase effective in October 2018. There was an increase in purchased power cost of $44.4 million due to an increase in purchase volumes and the TVA rate increase, offset by the lower fuel cost adjustor. Non-operating revenue increased $0.6 million to $47.9 million in 2018 as a result of an increase in investment and other income of $4.1 million and an increase in other income TVA transmission credit of $1.1 million, offset by a decrease in other income prepay credit, related to the Electric TVA Prepay Bonds of $4.5 million.

2017 Compared to 2016:

Total revenues were $1.28 billion for fiscal year 2017, a decrease of $18.3 million, or 1.4%, from fiscal year 2016. Operating revenues were $1.23 billion in 2017, a decrease of $15.5 million from 2016. The decrease in operating revenue is due primarily to lower sales volume, offset, in part, by higher power costs per unit and the TVA 1.5% rate increase effective in October 2017. There was a decrease in purchased power cost of $26.6 million due to a decrease in purchase volumes and fuel cost adjustor, offset by the TVA rate increase. Non-operating revenue decreased $2.9 million to $47.4 million in 2017 as a result of a decrease in other income prepay credit, related to the Electric TVA Prepay Bonds of $4.0 million, offset by an increase in other income TVA transmission credit of $0.6 million and an increase in investment and other income of $0.6 million.

Expenses

2018 Compared to 2017:

For fiscal year 2018, total expenses were $1.25 billion, a 0.1%, or $1.7 million decrease from fiscal year 2017 total expenses. This decrease was a result of a decrease in other operating expenses of $45.1 million and a decrease in non-operating expenses of $2.7 million, offset in part by an increase in purchased power of $44.4 million and an increase in depreciation expense of $1.7 million. The decrease in other operating expense is due primarily to the implementation of GASB 75 in 2018. The decrease in non-operating expense is primarily the result of lower interest expense associated with the Series 2010 Bonds, offset, in part, by higher interest expense associated with the Series 2016 Bonds. The increase in purchase power is due to the increase in purchases and higher power costs.

2017 Compared to 2016:

For fiscal year 2017, total expenses were $1.25 billion, a 1.8%, or $22.6 million decrease from fiscal year 2016 total expenses of $1.27 billion. This decrease was a result of a decrease in purchased power cost of $26.6 million and a decrease in non-operating expense of $2.5 million, offset by increases in depreciation expense of $3.2 million and other operating expense of $3.6 million. The decrease in non-operating expense is primarily the result of lower interest expense associated with the Series 2010 Bonds, offset, in part, by higher interest expense associated with the Series 2016 Bonds. The increase in other operating expense is due, in part, to increases in maintenance expense of $1.9 million and operating expenses of $1.7 million, offset by a decrease in payment in lieu of taxes ("PILOT") of $0.5 million.

Contributions in aid of construction

2018 Compared to 2017:

Contributions in aid of construction ("CIAC") were $17.3 million for fiscal year 2018, a decrease of $10.2 million (37.2%) from fiscal year 2017. This decrease was mainly the result of decreases in grant funds of $9.8 million, cancelled contracts of $0.45 million, and claims of $2.2 million, offset by an increase in construction contributions of $0.63 million and donated easements of $1.6 million.

2017 Compared to 2016:

CIAC were $27.5 million for fiscal year 2017, an increase of $17.1 million, or 163.8%, from fiscal year 2016. This increase was mainly the result of increases in grant funds of $9.6 million, construction activity of $6.4 million, and cancelled contracts of $1.4 million, offset by a decrease in claims of $1.2 million.

Transfers to the City of Memphis

2018 Compared to 2017:

MLGW's transfer to the City of Memphis is based on the formula provided by the May 29, 1987 TVA Power Contract Amendment (Supp. No. 8). The formula includes a maximum property tax equivalency calculation plus 4% of operating revenue less power costs (three-year average). Transfers to the City represent the Electric Division's in lieu of tax payment. The 2018 transfer decreased by $1.3 million compared to 2017.

2017 Compared to 2016:

MLGW's transfer to the City of Memphis is based on the formula provided by the May 29, 1987 TVA Power Contract Amendment (Supp. No. 8). The formula includes a maximum property tax equivalency calculation plus 4% of operating revenue less power costs (three-year average). Transfers to the City represent the Electric Division's in lieu of tax payment. The transfer for 2017 increased by $1.7 million. An increase of $1.9 million was due to increased net plant investment, offset by $0.2 million decrease due to a decrease in three-year average revenues.

Analysis of the Gas Division's Statements of Net Position

Condensed financial information comparing the Gas Division's net position for the past three fiscal years is presented below:

Table 3
Gas Division Condensed Statements of Net Position
December 31
(In Thousands)

	2018	2017	FY18 - FY17 Percentage Change	2016	FY17 - FY16 Percentage Change
Current assets (excluding restricted funds)	$ 162,398	$ 152,994	6.1%	$ 136,737	11.9%
Restricted assets	22,904	30,991	-26.1%	49,261	-37.1%
Other assets	29,288	17,575	66.6%	10,478	67.7%
Utility plant	421,246	400,150	5.3%	383,630	4.3%
Total assets	635,836	601,710	5.7%	580,106	3.7%
Deferred outflows of resources					
Employer pension contribution	5,100	5,784	-11.8%	5,473	5.7%
Employer OPEB contribution	11,264	-	100.0%	-	-
Pension liability experience	1,203	388	210.1%	485	-20.0%
OPEB liability experience	704	-	100.0%	-	-
Pension investment earnings experience	7,882	13,159	-40.1%	17,546	-25.0%
Total assets and deferred outflows	661,989	621,041	6.6%	603,610	2.9%
Current liabilities payable from current assets	63,335	41,439	52.8%	52,361	-20.9%
Current liabilities payable from restricted assets	9,548	7,978	19.7%	8,304	-3.9%
Long-term debt	86,111	89,988	-4.3%	46,591	93.1%
Non-current liabilities	68,557	28,724	138.7%	34,234	-16.1%
Total liabilities	227,551	168,129	35.3%	141,490	18.8%
Deferred inflows of resources					
Pension liability experience	2,985	4,502	-33.7%	2,788	61.5%
Pension changes of assumptions	1,695	2,830	-40.1%	3,774	-25.0%
OPEB changes of assumptions	38,404	-	100.0%	-	-
Pension investment earnings experience	23,018	2,339	884.1%	88	2558.0%
OPEB investment earnings experience	5,724	-	100.0%	-	-
Accumulated decrease in fair value of hedging derivatives	1,546	18	8488.9%	9	100.0%
Total liabilities and deferred inflows	300,923	177,818	69.2%	148,149	20.0%
Net position:					
Net investment in capital assets	333,148	308,334	8.0%	336,148	-8.3%
Restricted	9,760	19,662	-50.4%	37,409	-47.4%
Unrestricted	18,158	115,227	-84.2%	81,904	40.7%
Total Net position	$ 361,066	$ 443,223	-18.5%	$ 455,461	-2.7%

Assets

2018 Compared to 2017:

As of December 31, 2018 total assets and deferred outflows were $662.0 million, an increase of $41.0 million, or 6.6%, compared to December 31, 2017. This increase is due, in part, to increases in net utility plant of $21.1 million, other assets of $11.7 million, employer OPEB contribution of $11.3 million, current assets (excluding restricted funds) of $9.4 million and, offset, in part, by a decrease in restricted assets of $8.1 million and a decrease in pension investment earnings experience of $5.3 million. Current assets increased due, in part, to increases in accounts receivable (less allowance for doubtful accounts) of $9.2 million, inventories of $2.3 million, and other current assets of $1.6 million, offset by a decrease in investments of $3.4 million and unbilled revenues of $2.9 million. The decrease in restricted assets is due to depleting the Series 2016 revenue bond proceeds used for capital expenditures.

2017 Compared to 2016:

As of December 31, 2017 total assets and deferred outflows were $621.0 million, an increase of $17.4 million, or 2.9%, compared to December 31, 2016. This increase is due, in part, to increases in net utility plant of $16.5 million, current assets (excluding restricted funds) of $16.3 million and other assets of $7.1 million, offset, in part, by a decrease in restricted assets of $18.3 million and a decrease in pension investment earnings experience of $4.4 million. Current assets increased due, in part, to increases in unbilled revenue of $4.5 million, cash and cash equivalents of $4.3 million and investments of $4.1 million. The decrease in restricted assets is due to depleting the Series 2016 revenue bond proceeds used for capital expenditures of $27.7 million, offset by an increase in proceeds due to the issuance of the Series 2017 revenue bonds of $10.0 million.

Capital Assets and Construction Activities

2018 Compared to 2017:

The Gas Division's utility plant assets, net of accumulated depreciation totaled $421.2 million as of December 31, 2018, an increase of 5.3% over fiscal 2017. During 2018, the Gas Division expended $48.0 million on construction activities and equipment purchases, an increase of $0.9 million or 2.0% compared to fiscal year 2017. Major Gas Division construction activities included the purchase of meters and metering equipment ($24.5 million), gas main service replacements ($5.6 million), planned maintenance ($5.1 million), and the purchase of transportation and power operated equipment ($4.2 million). Other significant Gas Division expenditures included information systems and technology upgrades ($3.8 million) and maintenance of transmission pipelines and facilities ($1.4 million).

2017 Compared to 2016:

The Gas Division's utility plant assets, net of accumulated depreciation were $400.2 million as of December 31, 2017, an increase of 4.3% over fiscal 2016. During 2017, the Gas Division expended $47.0 million on construction activities and equipment purchases, an increase of $4.2 million or 9.8% compared to fiscal year 2016. Major Gas Division construction activities included the purchase of meters and metering equipment ($29.0 million), cast iron replacement ($3.2 million), and purchase of transportation and power operated equipment ($2.9 million). Other significant Gas Division expenditures included street improvements ($2.4 million), data processing projects ($1.5 million), maintenance of transmission pipelines and facilities ($1.1 million), and building upgrades to various MLGW facilities ($1.0 million).

Liabilities

2018 Compared to 2017:

At December 31, 2018, total liabilities and deferred inflows were $300.9 million, representing a $123.1 million (69.2%) increase compared to $177.8 million at December 31, 2017. This increase is due, in part, to increases in non-current liabilities of $39.8 million, OPEB changes of assumptions due to the implementation of GASB 75 of $38.4 million, current liabilities payable from current assets of $21.9 million, and pension investment earnings experience of $20.7 million, offset by decreases in long – term debt of $3.9 million, pension liability experience of $1.5 million, and pension changes of assumptions of $1.1 million.

2017 Compared to 2016:

At December 31, 2017, total liabilities and deferred inflows were $177.8 million, representing a $29.7 million (20.0%) increase compared to $148.1 million at December 31, 2016. This increase is due, in part, to increases in long-term debt due to the issuance of the Series 2017 Bonds of $38.8 million, unamortized premium of $6.0 million, pension investment earning experience of $2.3 million, and pension liability experience of $1.7 million, offset by a decrease in current liabilities payable from current assets of $10.9 million due to other accounts payable and liabilities of $7.2 million and a decrease in non-current liabilities of $5.5 million due to the decrease in net pension liability of $4.5 million.

Net Position

2018 Compared to 2017:

As of December 31, 2018, the Gas Division's total net position (total assets and deferred outflows of resources less total liabilities and deferred inflows of resources) was $361.1 million, a decrease of $82.2 million, or 18.5%, from December 31, 2017. The decrease is due, in part, to a decrease in unrestricted net position of $97.1 million as a result of the cumulative impact of implementing GASB 75 and a decrease in restricted net position of $9.9 million due to the disbursement of the proceeds of the Series 2017 Bonds, offset, in part by an increase in investments in capital assets of $24.8 million. Ninety - two percent of the net position was related to net investment in capital assets.

2017 Compared to 2016:

As of December 31, 2017, the Gas Division's total net position (total assets and deferred outflows of resources less total liabilities and deferred inflows of resources) was $443.2 million, a decrease of $12.2 million, or 2.7%, from December 31, 2016. The decrease is due, in part, to a decrease in net investment in capital assets of $27.8 million and a decrease in restricted net position of $17.7 million due to depleting the Series 2016 bond proceeds used for capital expenditures and the issuance of the Series 2017 revenue bonds, offset, in part by an increase in unrestricted net position (used to finance day-to-day operations) of $33.3 million. Seventy percent of the net position was related to net investment in capital assets.

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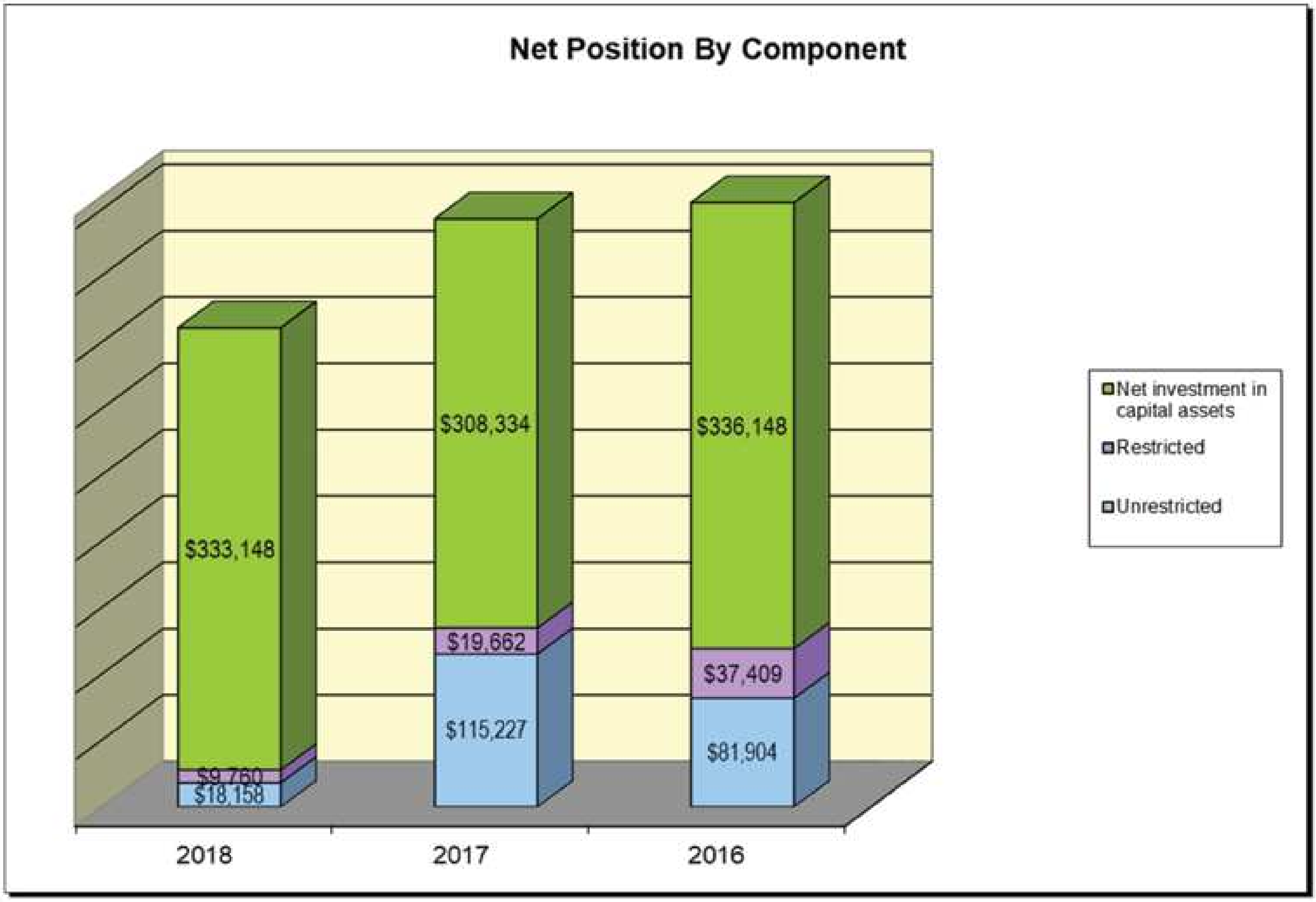
Figure 3: Gas Division's Net Position (in thousands):



Analysis of the Gas Division's Statements of Revenues, Expenses and Changes in Net Position

Condensed financial information comparing the Gas Division's revenues, expenses and changes in net position for the past three fiscal years is presented below:

Table 4
Gas Division
Condensed Statements of Revenues, Expenses and Changes in Net Position
Years Ended December 31, 2018, 2017, and 2016
(In Thousands)

	2018	2017	FY18 - FY17 Percentage Change	2016	FY17 - FY16 Percentage Change
Revenues:					
Sales, service and other operating revenues	$ 263,069	$ 218,088	20.6%	$ 198,931	9.6%
Transported gas revenue	11,119	8,315	33.7%	6,945	19.7%
Non-operating revenues	899	(186)	583.3%	98	-289.8%
Total revenues	275,087	226,217	21.6%	205,974	9.8%
Expenses:					
Depreciation expense	21,483	18,121	18.6%	15,251	18.8%
Purchased gas	138,107	105,729	30.6%	92,183	14.7%
Other operating expense	64,921	94,811	-31.5%	94,703	0.1%
Non-operating expense	2,400	1,469	63.4%	379	287.6%
Total expenses	226,911	220,130	3.1%	202,516	8.7%
Income before contributions in aid of construction and transfers	48,176	6,087	691.5%	3,458	76.0%
Contributions in aid of construction	3,018	3,833	-21.3%	38,118	-89.9%
Reduction of plant costs recovered through contributions in aid of construction	(3,018)	(3,833)	21.3%	(38,118)	89.9%
Transfers to City of Memphis	(19,152)	(18,325)	-4.5%	(17,525)	4.6%
Change in net position	$ 29,024	$ (12,238)	337.2%	$ (14,067)	13.0%
Net position, beginning of year	$ 443,223	$ 455,461	-2.7%	$ 469,528	-3.0%
Change in method of accounting for OPEB	(111,181)	-	-100.0%	-	-
Change in net position	29,024	(12,238)	337.2%	(14,067)	13.0%
Net position, end of year	$ 361,066	$ 443,223	-18.5%	$ 455,461	-2.7%

Change in Net Position

2018 Compared to 2017:

The change in net position is $29.0 million, up $41.3 million from December 31, 2017. This increase is primarily due to an increase in operating margin (operating revenue less gas cost) of $15.4 million and an increase in other revenues of $4.2 million, in addition to a decrease in administrative and general operating expenses of $27.7 million due to the implementation of GASB 75 which required a change in the method of accounting for OPEB.

2017 Compared to 2016:

The change in net position is a loss of $12.2 million, up $1.8 million from December 31, 2016. This increase is primarily due to an increase in operating margin (operating revenue less gas cost) of $7.0 million, offset by lower gas sales volume, increases in depreciation expense of $2.9 million, non-operating expense of $1.1 million and Transfers to the City of Memphis of $0.8 million.

Revenues

2018 Compared to 2017:

Total revenues were $275.0 million for fiscal year 2018, an increase of $48.9 million or 21.6% from fiscal year 2017. Sales, service and other operating revenues were $263.1 million, an increase of $45.0 million, or 20.6%, from 2017. There was a corresponding increase in purchased gas cost of $32.4 million, or 30.6%, due to higher gas sales volume, offset in part by lower unit cost. Transported gas revenues increased $2.8 million, or 33.7%, and non-operating revenue increased $1.1 million, compared to fiscal year 2017.

2017 Compared to 2016:

Total revenues were $226.2 million for fiscal year 2017, an increase of 9.8% from fiscal year 2016. Sales, service and other operating revenues were $218.1 million, an increase of $19.2 million, or 9.6%, from 2016. There was an increase in gas costs that are passed along to customers by a purchase gas adjustment ("PGA"), offset by a decrease in gas sales volume. There was a corresponding increase in purchased gas cost of $13.5 million, or 14.7%, due to higher gas cost per unit. Transported gas revenues increased $1.4 million, or 19.7%, and non-operating revenue decreased $0.3 million, compared to fiscal year 2016.

Expenses

2018 Compared to 2017:

For fiscal year 2018, total expenses were $226.9 million at December 31, 2018, an increase of 3.1% over fiscal year 2017 expenses of $220.1 million. Purchased gas cost was $138.1 million, up 30.6%, from $105.7 million at December 31, 2017, as a result of higher gas sales volume, offset in part by lower gas costs per unit than last year. Depreciation expense was $21.5 million at December 31, 2018, up $3.4 million, or 18.6%, from $18.1 million at December 31, 2017 and non-operating expense was $2.4 million at December 31, 2018, an increase of $0.9 million due to higher interest expense associated with the Series 2017 Bonds.

2017 Compared to 2016:

For fiscal year 2017, total expenses were $220.1 million at December 31, 2017, an increase of 8.7% over fiscal year 2016 expenses of $202.5 million. Purchased gas cost was $105.7 million, up 14.7%, from $92.2 million at December 31, 2017, as a result of higher gas costs per unit than last year. Depreciation expense was $18.1 million at December 31, 2017, up $2.9 million, or 18.8%, from $15.3 million at December 31, 2016 and non-operating expense was $1.5 million at December 31, 2017, an increase of $1.1 million due to higher interest expense associated with the Series 2016 Bonds.

Contributions in aid of construction

2018 Compared to 2017:

Contributions in aid of construction ("CIAC") were $3.0 million for fiscal year 2018, a decrease of $0.8 million (21.3%) from fiscal year 2017. This decrease was mainly the result of decreases in construction contributions of $0.2 million, $1.7 million of economic development contributions, and $0.1 million in cancelled contracts, offset by an increase in donated easements of $1.2 million.

2017 Compared to 2016:

CIAC were $3.8 million for fiscal year 2017, a decrease of $34.3 million (89.9%) from fiscal year 2016. This decrease was mainly the result of the TVA pipeline project of $35.6 million, offset by an increase in construction activity of $1.0 million.

Transfers to the City of Memphis

2018 Compared to 2017:

MLGW's transfer to the City of Memphis is based on the formula provided by the State of Tennessee Municipal Gas System Tax Equivalent Law of 1987. The formula includes a maximum property tax equivalency calculation plus 4% of operating revenue less power costs (three-year average). Transfers to the City represent the Gas Division's in lieu of tax payment. The 2018 transfer increased by $0.8 million as a result of an increase in net plant investment.

2017 Compared to 2016:

MLGW's transfer to the City of Memphis is based on the formula provided by the State of Tennessee Municipal Gas System Tax Equivalent Law of 1987. The formula includes a maximum property tax equivalency calculation plus 4% of operating revenue less power costs (three-year average). Transfers to the City represent the Gas Division's in lieu of tax payment. The transfer for 2017 increased by $0.8 million. The transfer increased $1.2 million primarily as a result of an increase in net plant investment, offset by a decrease of $0.4 million due to a decrease in three-year average revenues.

Analysis of the Water Division's Statements of Net Position

Condensed financial information comparing the Water Division's net position for the past three fiscal years is presented below:

Table 5
Water Division Condensed Statements of Net Position
December 31
(In Thousands)

	2018	2017	FY18 - FY17 Percentage Change	2016	FY17 - FY16 Percentage Change
Current assets (excluding restricted assets)	$ 40,305	$ 56,200	-28.3%	$ 46,901	19.8%
Restricted assets	16,211	13,395	21.0%	29,756	-55.0%
Other assets	12,335	4,935	149.9%	4,012	23.0%
Utility plant	349,254	327,788	6.5%	292,880	11.9%
Total assets	418,105	402,318	3.9%	373,549	7.7%
Deferred outflows of resources					
Employer pension contribution	3,769	3,804	-0.9%	3,634	4.7%
Employer OPEB contribution	8,325	-	100.0%	-	-
Pension liability experience	889	258	244.6%	322	-19.9%
OPEB liability experience	520	-	100.0%	-	-
Pension investment earnings experience	5,826	8,739	-33.3%	11,652	-25.0%
Total assets and deferred outflows	437,434	415,119	5.4%	389,157	6.7%
Current liabilities payable from current assets	19,928	16,977	17.4%	20,031	-15.2%
Current liabilities payable from restricted assets	6,666	4,978	33.9%	5,154	-3.4%
Long-term debt	67,040	70,219	-4.5%	45,501	54.3%
Non-current liabilities	49,679	18,457	169.2%	20,988	-12.1%
Total liabilities	143,313	110,631	29.5%	91,674	20.7%
Deferred inflows of resources					
Pension liability experience	2,206	2,989	-26.2%	1,852	61.4%
Pension changes of assumptions	1,253	1,880	-33.4%	2,506	-25.0%
OPEB changes of assumptions	28,386	-	100.0%	-	-
Pension investment earnings experience	17,014	1,553	995.6%	58	2577.6%
OPEB investment earnings experience	4,230	-	100.0%	-	-
Total liabilities and deferred inflows	196,402	117,053	67.8%	96,090	21.8%
Net position:					
Net investment in capital assets	280,220	255,420	9.7%	246,178	3.8%
Restricted	8,194	7,122	15.1%	23,617	-69.8%
Unrestricted	(47,382)	35,524	-233.4%	23,272	52.6%
Total Net position	$ 241,032	$ 298,066	-19.1%	$ 293,067	1.7%

Assets

2018 Compared to 2017:

As of December 31, 2018, total assets and deferred outflows were $437.4 million, an increase of $22.3 million compared to December 31, 2017. The increase is due, in part, to increases in net utility plant of $21.5 million, other assets of $7.4 million, and employer OPEB contribution of $8.3 million, offset, in part by a decrease in cash and cash equivalents of $9.7 million, and a decrease in the pension investment earnings experience of $2.9 million.

2017 Compared to 2016:

As of December 31, 2017, total assets and deferred outflows were $415.1 million, an increase of $26.0 million compared to December 31, 2016. The increase is due, in part, to increases in net utility plant of $35.0 million and current assets (excluding restricted assets) of $9.3 million, offset with a decrease in restricted assets of $16.4 million due to depleting the Series 2016 revenue bond proceeds used for capital expenditures of $16.5 million and a decrease in the pension investment earnings experience of $2.9 million.

Capital Assets and Construction Activities

2018 Compared to 2017:

The Water Division's utility plant assets, net of accumulated depreciation totaled $349.3 million as of December 31, 2018, an increase of 6.5% as compared to December 31, 2017. During 2018, the Water Division expended $32.3 million on construction activities and equipment purchases, a decrease of $12.7 million or 28.2% compared to fiscal year 2017. Major Water Division construction activities included the purchase of meters ($11.8 million), maintenance and construction of water production wells ($3.4 million), extensions to serve new customers ($3.3 million), installation of new water mains ($3.2 million), building upgrades and rehabilitation of various pumping stations and other MLGW buildings ($3.0 million). Other significant expenditures include the maintenance and installation of overhead storage tanks ($1.8 million), and the purchase of transportation and power operated equipment ($1.3 million).

2017 Compared to 2016:

The Water Division's utility plant assets, net of accumulated depreciation were $327.8 million as of December 31, 2017, an increase of 11.9% compared to December 31, 2016. During 2017, the Water Division expended $45.0 million on construction activities and equipment purchases, an increase of $14.0 million, or 45.2%, compared to fiscal year 2016. Major Water Division construction activities included the purchase of meters ($22.1 million), maintenance and installation of overhead storage tanks ($5.8 million), building upgrades and rehabilitation of various pumping stations and other MLGW buildings ($6.1 million), and installation of new water mains ($3.6 million). Other significant expenditures include the maintenance and construction of water production wells ($3.3 million) and the purchase of transportation and power operated equipment ($1.3 million).

Liabilities

2018 Compared to 2017:

As of December 31, 2018, total liabilities and deferred inflows were $196.4 million, representing an increase of $79.3 million, or 67.8%, compared to December 31, 2017. This increase is due in part to increases in non-current liabilities of $31.2 million, OPEB changes of assumptions of $28.4 million, and pension investment earnings experience of $15.5 million, offset by decreases in long-term debt of $3.2 million and pension liability experience of $0.8 million. The increase in non-current liabilities is due to an increase in net OPEB liability of $43.1 million offset by a decrease in net pension liability of $11.8 million.

2017 Compared to 2016:

As of December 31, 2017, total liabilities and deferred inflows were $117.1 million, representing an increase of $21.0 million, or 21.8%, compared to December 31, 2016. This increase is due, in part, to an increase in long-term debt of $24.7 million due to the issuance of Series 2017 Bonds, offset by a decrease in current liabilities payable from current assets of $3.1 million and a decrease in non-current liabilities of $2.5 million due to the decrease in net pension liability-long term.

Net Position

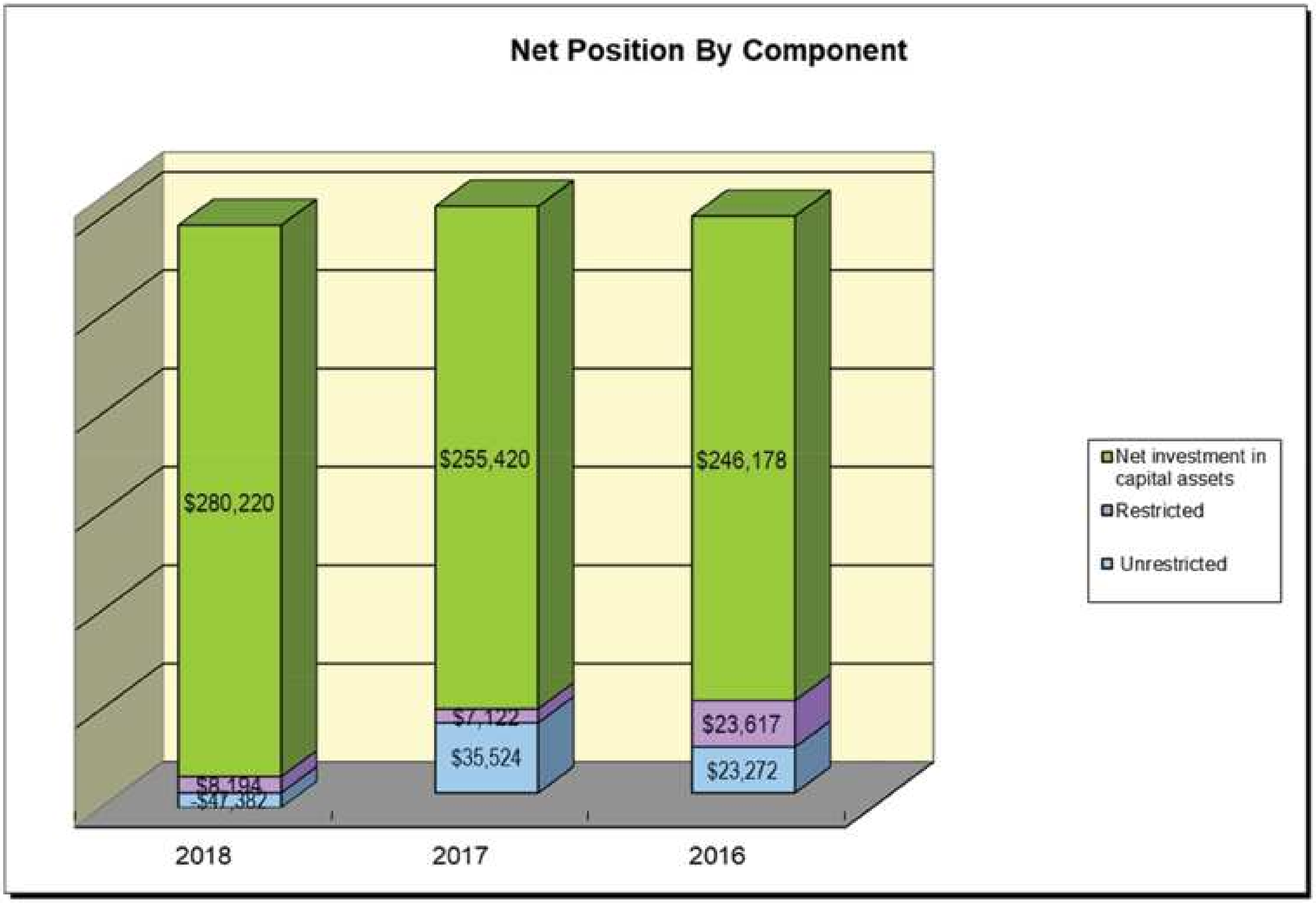
2018 Compared to 2017:

As of December 31, 2018, the Water Division's total net position (total assets and deferred outflows of resources less total liabilities and deferred inflows of resources) was $241.0 million, a decrease of $57.0 million, or 19.1%, from December 31, 2017. The decrease is due primarily to a decrease in unrestricted net position of $82.9 million as a result of cumulative impact of implementing GASB 75, offset in part by an increase in net investment in capital assets of $24.8 million and an increase in restricted net position of $1.1 million. One hundred and sixteen percent of the net position was related to net investment in capital assets.

2017 Compared to 2016:

As of December 31, 2017, the Water Division's total net position (total assets and deferred outflows of resources less total liabilities and deferred inflows of resources) was $298.1 million, an increase of $5.0 million, or 1.7%, from December 31, 2016. The increase is due to an increase in unrestricted net position (used to finance day-to-day operations) of $12.3 million and an increase in net investment in capital assets of $9.2 million, offset by a decrease in restricted net position of $16.5 million due to depleting the Series 2016 revenue bond proceeds used for capital expenditures. Eighty-six percent of the new position was related to net investments in capital assets.

Figure 4: Water Division's Net Position (in thousands):



Analysis of the Water Division's Statements of Revenues, Expenses and Changes in Net Position

Condensed financial information comparing the Water Division's revenues, expenses and changes in net position for the past three fiscal years is presented below:

Table 6
Water Division
Condensed Statements of Revenues, Expenses and Changes in Net Position
Years Ended December 31, 2018, 2017, and 2016
(In Thousands)

	2018	2017	FY18 - FY17 Percentage Change	2016	FY17 - FY16 Percentage Change
Revenues:					
Operating revenues	$ 103,140	$ 99,513	3.6%	$ 99,847	-0.3%
Non-operating revenues	1,177	1,000	17.7%	739	35.3%
Total revenues	104,317	100,513	3.8%	100,586	-0.1%
Expenses:					
Depreciation expense	9,653	8,404	14.9%	7,987	5.2%
Other operating expense	65,118	81,352	-20.0%	77,611	4.8%
Non-operating expense	1,864	1,358	37.3%	691	96.5%
Total expenses	76,635	91,114	-15.9%	86,289	5.6%
Income before contributions in aid of construction and transfers	27,682	9,399	194.5%	14,297	-34.3%
Contributions in aid of construction	4,364	3,576	22.0%	3,533	1.2%
Reduction of plant costs recovered through contributions in aid of construction	(4,364)	(3,576)	-22.0%	(3,533)	-1.2%
Transfers to City of Memphis	(2,500)	(4,400)	43.2%	(4,400)	-
Change in net position	$ 25,182	$ 4,999	403.7%	$ 9,897	-49.5%
Net position, beginning of year	$ 298,066	$ 293,067	1.7%	$ 283,170	3.5%
Change in method of accounting for OPEB	(82,216)	-	-100.0%	-	-
Change in net position	25,182	4,999	403.7%	9,897	-49.5%
Net position, end of year	$ 241,032	$ 298,066	-19.1%	$ 293,067	1.7%

Change in Net Position

2018 Compared to 2017:

As of December 31, 2018, the change in net position is $25.2 million, up $20.2 million from $5.0 million at December 31, 2017. This increase is due to a decrease in other operating expenses of $16.2 million, and increase in operating revenues of $3.6 million due to higher sales volumes, a decrease in Transfers to the City of Memphis of $1.9 million, offset by increases in depreciation expense of $1.2 million and non-operating expenses of $0.5 million.

2017 Compared to 2016:

As of December 31, 2017, the change in net position is $5.0 million, down $4.9 million from $9.9 million at December 31, 2016. This decrease is due to increases in other operating expense of $3.7 million, non-operating expense of $0.7 million, and depreciation expense of $0.4 million.

Revenues

2018 Compared to 2017:

Total revenues were $104.3 million for fiscal year 2018, an increase of $3.8 million compared to fiscal year 2017. This increase is due to increases in operating revenues of $3.6 million due primarily to higher sales volume and non-operating revenues of $0.2 million.

2017 Compared to 2016:

Total revenues were $100.5 million for fiscal year 2017, a decrease of $0.07 million compared to fiscal year 2016. Operating revenues decreased $0.3 million due primarily to lower sales volume, offset by an increase in non-operating revenues of $0.3 million.

Expenses

2018 Compared to 2017:

As of December 31, 2018, total expenses for the Water Division were $76.6 million, a decrease of $14.5 million, or 15.9%, compared to fiscal year 2017. This resulted from a decrease in operating expense of $16.2 million, offset in part by an increase in depreciation expense of $1.3 million.

Decrease in payment in lieu of taxes ("PILOT") of $1.9 million for 2018 over 2017. Due to the approval of the Board from 2014 expired.

2017 Compared to 2016:

As of December 31, 2017, total expenses for the Water Division were $91.1 million, an increase of $4.8 million, or 5.6%, compared to fiscal year 2016. The increase resulted from an increase in other operating expense of $3.7 million due, in part, to an increase in maintenance expenses of $2.8 million and an increase in non-operating expense of $0.7 million.

Contributions in aid of construction

2018 Compared to 2017:

Contributions in aid of construction ("CIAC") were $4.4 million for fiscal year 2018, an increase of $0.8 million (22%) from fiscal year 2017. This increase was mainly the result of an increase of $0.9 million in donated easements, offset by a decrease in construction contributions of $0.1 million.

2017 Compared to 2016:

CIAC were $3.6 million for fiscal year 2017, an increase of 1.2% from fiscal year 2016. This increase was mainly the result of an increase in construction activity of $0.4 million and an increase in donated easements of $0.3 million, offset by a decrease in services of $0.6 million.

Transfers to the City of Memphis

2018 Compared to 2017

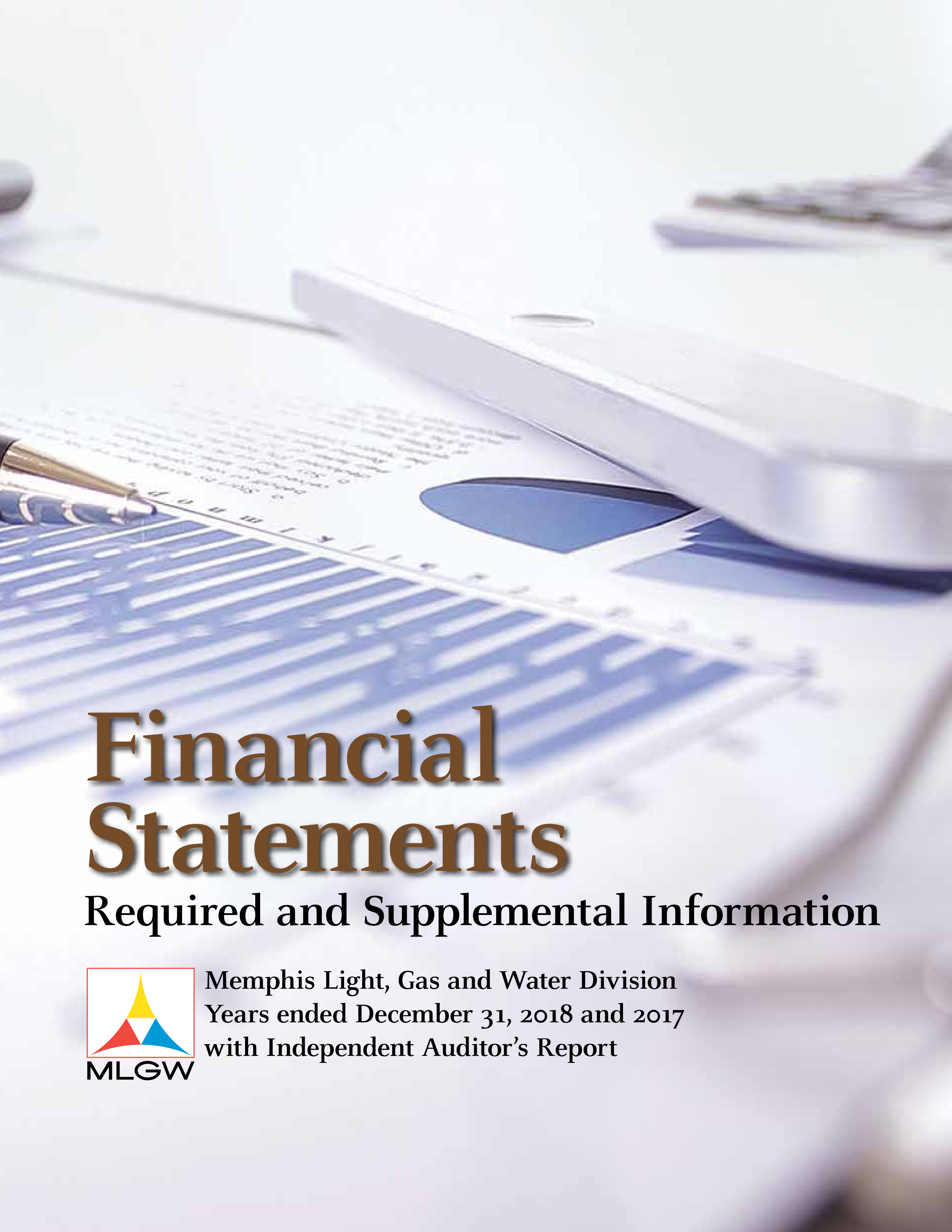
The Water Division through an agreement with the City, transfers a payment in the amount of $2.5 million per year. The agreement is effective through the year 2028. During 2014 the Water Division was authorized and directed by City Council, per City resolution, to make an additional annual $1.9 million transfer payment through fiscal year 2017. The Water Division did not make this additional $1,900 transfer in 2018 per the expiration date in the City Resolution.

2017 Compared to 2016

The Water Division, through an agreement with the City, transfers a payment in the amount of $2.5 million per year. The agreement is effective through the year 2028. During 2014, the Water Division was authorized and directed by City Council to make an additional annual $1.9 million transfer payment in fiscal year 2014 through fiscal year 2017.

Additional Financial Information

This discussion is designed to provide MLGW's customers, investors and other interested parties with a general overview of the financial position and results of operations. Questions concerning any of the information provided in this report or requests for additional information should be addressed to the Manager of General Accounting, Memphis Light, Gas and Water Division, P.O. Box 430, Memphis, TN 38101, or call 901-528-4221.



Financial Statements

Required and Supplemental Information

Memphis Light, Gas and Water Division
Years ended December 31, 2018 and 2017
with Independent Auditor's Report

STATEMENTS OF NET POSITION
DECEMBER 31, 2018 AND 2017
(Dollars in Thousands)

	Electric Division		Gas Division		Water Division	
	2018	**2017**	**2018**	**2017**	**2018**	**2017**
Assets						
Current assets:						
Cash and cash equivalents	**$ 138,013**	$ 105,004	**$ 46,280**	$ 44,900	**$ 6,784**	$ 16,504
Investments	**100,355**	85,123	**31,738**	35,184	**4,939**	13,371
Derivative financial instruments	**-**	-	**1,546**	18	**-**	-
Restricted funds - current	**28,958**	68,698	**9,548**	17,943	**7,604**	5,000
Accrued interest receivable	**-**	-	**80**	34	**-**	-
Accounts receivable, less allowance for doubtful accounts	**91,907**	97,175	**46,271**	37,055	**18,849**	16,658
Unbilled revenues	**49,948**	56,453	**19,736**	22,671	**3,627**	4,100
Prepaid power cost	**-**	112,822	**-**	-	**-**	-
Unrecovered purchased power/gas cost	**9,773**	3,350	**-**	788	**-**	-
Gas stored - gas in storage	**-**	-	**2,618**	2,329	**-**	-
Inventories	**34,419**	30,375	**8,529**	6,252	**5,052**	4,536
Prepayment - insurance	**-**	-	**514**	476	**-**	-
Unamortized debt expense - current	**131**	267	**63**	65	**65**	67
Meter replacement - current	**757**	704	**1,070**	845	**252**	202
Other current assets	**3,377**	3,560	**3,953**	2,377	**737**	762
Total current assets	**457,638**	563,531	**171,946**	170,937	**47,909**	61,200
Non-current assets:						
Restricted funds:						
Insurance reserves - injuries and damages	**5,925**	5,941	**2,321**	2,689	**2,154**	1,637
Insurance reserves - casualties and general	**20,400**	19,777	**9,885**	9,822	**7,256**	7,100
Medical benefits	**10,838**	7,023	**4,943**	3,204	**3,232**	2,095
Customer deposits	**27,976**	26,674	**5,238**	4,795	**2,215**	2,123
Interest fund - revenue refunding bonds - series 2008	**-**	260	**-**	-	**-**	-
Interest fund - revenue refunding bonds - series 2010	**-**	230	**-**	-	**-**	-
Interest fund - revenue bonds - series 2014	**235**	245	**-**	-	**39**	41
Interest fund - revenue bonds - series 2016	**141**	147	**142**	147	**73**	76
Interest fund - revenue bonds - series 2017	**312**	317	**150**	152	**77**	77
Sinking fund - revenue refunding bonds - series 2008	**-**	5,532	**-**	-	**-**	-
Sinking fund - revenue refunding bonds - series 2010	**-**	4,838	**-**	-	**-**	-
Sinking fund - revenue bonds - series 2014	**231**	226	**-**	-	**51**	51
Sinking fund - revenue bonds - series 2016	**116**	113	**116**	113	**100**	99
Sinking fund - revenue bonds - series 2017	**249**	238	**109**	104	**76**	73
Construction fund - revenue bonds - series 2017	**-**	33,186	**-**	9,965	**-**	23
Groundwater reserve fund	**-**	-	**-**	-	**938**	-
Total restricted funds	**66,423**	104,747	**22,904**	30,991	**16,211**	13,395
Less restricted funds - current	**(28,958)**	(68,698)	**(9,548)**	(17,943)	**(7,604)**	(5,000)
Restricted funds - non-current	**37,465**	36,049	**13,356**	13,048	**8,607**	8,395

See accompanying notes.

STATEMENTS OF NET POSITION
DECEMBER 31, 2018 AND 2017
(Dollars in Thousands)
(Continued)

	Electric Division		Gas Division		Water Division	
	2018	2017	2018	2017	2018	2017
Assets						
Other assets:						
Prepayment - in lieu of taxes	**1,690**	1,715	**39**	40	**-**	-
Unamortized debt expense	**1,208**	1,339	**609**	672	**621**	686
Notes receivable	**-**	-	**2,123**	2,809	**1,747**	1,784
Meter replacement - long term	**11,082**	10,933	**17,085**	14,054	**2,996**	2,465
Net pension asset - long term	**24,604**	-	**9,432**	-	**6,971**	-
Total other assets	**38,584**	13,987	**29,288**	17,575	**12,335**	4,935
Utility plant						
Plant in service	**1,931,069**	1,876,715	**753,898**	718,073	**555,027**	526,462
Plant held for future use	**-**	-	**212**	212	**-**	-
Non-utility plant	**15,345**	15,345	**200**	200	**-**	-
Total utility plant	**1,946,414**	1,892,060	**754,310**	718,485	**555,027**	526,462
Less accumulated depreciation & amortization	**(816,788)**	(782,462)	**(333,064)**	(318,335)	**(205,773)**	(198,674)
Utility plant, net	**1,129,626**	1,109,598	**421,246**	400,150	**349,254**	327,788
Total non-current assets	**1,205,675**	1,159,634	**463,890**	430,773	**370,196**	341,118
Total assets	**1,663,313**	1,723,165	**635,836**	601,710	**418,105**	402,318
Deferred outflows of resources						
Unamortized balance of refunded debt	**-**	409	**-**	-	**-**	-
Employer pension contribution	**13,305**	12,790	**5,100**	5,784	**3,769**	3,804
Employer OPEB contribution	**29,383**	-	**11,264**	-	**8,325**	-
Pension liability experience	**3,137**	870	**1,203**	388	**889**	258
OPEB liability experience	**1,837**	-	**704**	-	**520**	-
Pension investment earnings experience	**20,562**	29,506	**7,882**	13,159	**5,826**	8,739
Total deferred outflows of resources	**68,224**	43,575	**26,153**	19,331	**19,329**	12,801
Total assets and deferred outflows of resources	**$1,731,537**	$ 1,766,740	**$ 661,989**	$ 621,041	**$ 437,434**	$ 415,119

See accompanying notes.

STATEMENTS OF NET POSITION
DECEMBER 31, 2018 AND 2017
(Dollars in Thousands)
(Continued)

	Electric Division		Gas Division		Water Division	
	2018	2017	2018	2017	2018	2017
Liabilities						
Current liabilities:						
Accounts payable - purchased power and gas	$ 138,306	$ 110,516	$ 28,948	$ 22,378	$ -	$ -
Other accounts payable and liabilities	24,147	36,101	13,209	13,037	13,649	11,961
Accrued taxes	39,823	-	15,077	-	1,250	-
Accrued vacation	9,110	8,902	3,666	3,676	2,576	2,610
Bonds payable	6,444	116,218	2,435	2,348	2,453	2,406
Total current liabilities payable from current assets	217,830	271,737	63,335	41,439	19,928	16,977
Current liabilities payable from restricted assets:						
Insurance reserves - injuries and damages	5,925	5,941	2,321	2,689	2,154	1,637
Medical benefits	10,838	7,023	4,943	3,204	3,232	2,095
Customer deposits	10,911	10,403	1,767	1,569	864	828
Bonds payable - accrued interest	688	1,199	292	299	189	194
Bonds payable - principal	596	10,947	225	217	227	224
Total current liabilities payable from restricted assets	28,958	35,513	9,548	7,978	6,666	4,978
Total current liabilities	246,788	307,250	72,883	49,417	26,594	21,955
Non-current liabilities:						
Customer advances for construction	5,973	7,434	494	544	-	-
Customer deposits	17,065	16,271	3,471	3,226	1,351	1,295
LNG deposits	-	-	125	125	-	-
Reserve for unused sick leave	7,114	7,263	2,997	3,160	2,055	2,169
Revenue bonds - series 2014	58,240	60,965	-	-	12,090	12,695
Revenue bonds - series 2016	36,040	37,410	36,040	37,410	26,545	27,725
Revenue bonds - series 2017	84,200	87,145	37,460	38,750	23,225	24,120
Unamortized debt premium	23,709	27,659	12,611	13,828	5,180	5,679
Net pension liability	-	39,754	-	17,818	-	11,792
Net OPEB liability	152,017	-	58,273	-	43,072	-
Other	1,437	1,438	3,197	3,851	3,201	3,201
Total non-current liabilities	385,795	285,339	154,668	118,712	116,719	88,676
Total liabilities	632,583	592,589	227,551	168,129	143,313	110,631
Deferred inflows of resources						
Pension liability experience	7,787	10,093	2,985	4,502	2,206	2,989
Pension changes of assumptions	4,422	6,346	1,695	2,830	1,253	1,880
OPEB changes of assumptions	100,185	-	38,404	-	28,386	-
Pension investment earnings experience	60,048	5,245	23,018	2,339	17,014	1,553
OPEB investment earnings experience	14,931	-	5,724	-	4,230	-
Accumulated increase in fair value of hedging derivatives	-	-	1,546	18	-	-
Total deferred inflows of resources	187,373	21,684	73,372	9,689	53,089	6,422
Net position						
Net investment in capital assets	921,736	892,669	333,148	308,334	280,220	255,420
Restricted	20,400	52,963	9,760	19,662	8,194	7,122
Unrestricted	(30,555)	206,835	18,158	115,227	(47,382)	35,524
Total net position	911,581	1,152,467	361,066	443,223	241,032	298,066
Total liabilities, deferred inflows of resources and net position	$1,731,537	$ 1,766,740	$ 661,989	$ 621,041	$ 437,434	$ 415,119

See accompanying notes.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

(Dollars in Thousands)

	Electric Division		Gas Division		Water Division	
	2018	2017	2018	2017	2018	2017
Operating revenues:						
Sales and service revenues	$1,261,091	$1,205,017	$241,460	$ 200,679	$ 97,677	$ 94,697
Transported gas revenues	-	-	11,119	8,315	-	-
Other revenues	28,815	29,057	21,609	17,409	5,463	4,816
Total operating revenues	1,289,906	1,234,074	274,188	226,403	103,140	99,513
Operating expenses:						
Purchased power and gas for resale	1,035,898	991,526	138,107	105,729	-	-
Production	-	-	-	-	14,358	14,713
Operation	87,670	138,541	56,233	83,982	39,161	53,731
Maintenance	50,334	46,171	7,520	9,722	11,599	12,908
Depreciation & amortization	55,844	54,148	21,483	18,121	9,653	8,404
Payment in lieu of taxes	8,017	6,423	1,168	1,107	-	-
Total operating expenses	1,237,763	1,236,809	224,511	218,661	74,771	89,756
Operating income (loss)	52,143	(2,735)	49,677	7,742	28,369	9,757
Non-operating revenues (expenses):						
Contributions in aid of construction	17,315	27,553	3,018	3,833	4,364	3,576
Reduction of plant costs recovered through contributions in aid of construction	(17,315)	(27,553)	(3,018)	(3,833)	(4,364)	(3,576)
Transmission credits	35,118	33,989	-	-	-	-
Investment and other income	8,433	4,312	899	(186)	1,177	944
Allowance for funds used during construction	-	172	-	-	-	56
Prepay credit	4,400	8,880	-	-	-	-
Interest expense	(10,357)	(13,032)	(2,400)	(1,469)	(1,864)	(1,358)
Total non-operating revenues (expenses)	37,594	34,321	(1,501)	(1,655)	(687)	(358)
Income before transfers	89,737	31,586	48,176	6,087	27,682	9,399
Transfers out - City of Memphis	(40,393)	(41,681)	(19,152)	(18,325)	(2,500)	(4,400)
Change in net position	$ 49,344	$ (10,095)	$ 29,024	$ (12,238)	$ 25,182	$ 4,999
Net position, beginning of year	$1,152,467	$1,162,562	$443,223	$ 455,461	$298,066	$ 293,067
Change in method of accounting for OPEB	(290,230)	-	(111,181)	-	(82,216)	-
Change in net position	49,344	(10,095)	29,024	(12,238)	25,182	4,999
Net position, end of year	$ 911,581	$1,152,467	$361,066	$ 443,223	$241,032	$ 298,066

See accompanying notes.

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(Dollars in Thousands)

	Electric Division		Gas Division		Water Division	
	2018	2017	2018	2017	2018	2017
Cash flows from operating activities:						
Receipts from customers and users	$ 1,297,248	$ 1,223,014	$ 270,134	$ 218,562	$ 103,766	$ 101,259
Payments to suppliers	(921,400)	(913,357)	(156,062)	(134,108)	(31,054)	(35,934)
Payments to/on behalf of employees	(126,835)	(108,059)	(64,821)	(66,476)	(45,809)	(44,327)
Payments from (to) other Division funds	(6,531)	(4,820)	(2,698)	(2,875)	(4,621)	(4,112)
Payments for taxes	500	(6,736)	(104)	(1,286)	-	-
Net cash provided by operating activities	242,982	190,042	46,449	13,817	22,282	16,886
Cash flows from noncapital financing activities:						
Transfers to City of Memphis	(8,454)	(42,963)	(5,148)	(19,645)	(1,250)	(4,400)
Principal payments on long-term debt	(132,515)	(114,975)	-	-	-	-
Interest expense on bonds	(5,697)	(11,385)	-	-	-	-
Net cash used in noncapital financing activities	(146,666)	(169,323)	(5,148)	(19,645)	(1,250)	(4,400)
Cash flows from capital and related financing activities:						
Purchase and construction of utility plant	(94,525)	(121,145)	(50,090)	(50,468)	(36,358)	(49,317)
Contributions in aid of construction	17,315	27,553	3,018	3,833	4,364	3,576
Advance contributions in aid of construction (TVA)	-	-	-	(1,268)	-	-
Proceeds from issuance of long-term debt	-	101,053	-	46,381	-	27,389
Principal payments on long-term debt	(6,790)	(3,795)	(2,565)	(1,275)	(2,630)	(1,700)
Interest payments on debt	(8,429)	(5,259)	(3,560)	(2,093)	(2,300)	(1,522)
Net cash provided by (used in) capital and related financing activities	(92,429)	(1,593)	(53,197)	(4,890)	(36,924)	(21,574)
Cash flows from investing activities:						
Sales and maturities of investments	64,692	95,710	30,213	56,274	14,617	28,316
Purchases of investments	(79,503)	(88,968)	(26,310)	(37,548)	(6,633)	(15,911)
Payments received on notes receivable	-	-	-	-	37	88
Investment income (loss) earned on investments	6,029	2,116	1,743	811	518	307
Net cash provided by (used in) investing activities	(8,782)	8,858	5,646	19,537	8,539	12,800
Increase (decrease) in cash and cash equivalents	(4,895)	27,984	(6,250)	8,819	(7,353)	3,712
Cash and cash equivalents, beginning of year	198,240	170,256	70,292	61,473	25,989	22,277
Cash and cash equivalents, end of year	$ 193,345	$ 198,240	$ 64,042	$ 70,292	$ 18,636	$ 25,989

See accompanying notes.

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(Dollars in Thousands)
(Continued)

	Electric Division		Gas Division		Water Division	
	2018	2017	2018	2017	2018	2017
Reconciliation of operating income to net cash provided by operating activities:						
Operating income (loss)	**$ 52,143**	$ (2,735)	**$ 49,677**	$ 7,742	**$ 28,369**	$ 9,757
Adjustments to reconcile net operating income (loss) to net cash provided by operating activities:						
Pension expense - non-cash	**(7,622)**	6,121	**(4,075)**	2,739	**(2,396)**	1,815
OPEB expense - non-cash	**(55,350)**	-	**(21,217)**	-	**(15,682)**	-
Depreciation of utility plant	**57,204**	55,556	**23,082**	19,756	**9,971**	8,725
Transmission credits	**35,118**	33,989	**-**	-	**-**	-
Prepay power credits	**4,400**	8,880	**-**	-	**-**	-
Other income (loss)	**2,403**	2,197	**(890)**	(1,017)	**659**	637
(Increase) decrease in assets:						
Accounts receivable	**5,268**	(15,254)	**(9,216)**	(651)	**(2,191)**	959
Unbilled revenues	**6,505**	(3,865)	**2,935**	(4,470)	**473**	(256)
Prepaid power cost	**112,822**	119,695	**-**	-	**-**	-
Prepayments - in lieu of taxes	**25**	24	**1**	1	**-**	-
Unrecovered purchased power and gas costs	**(6,422)**	(121)	**788**	(563)	**-**	-
Inventories	**(4,044)**	(7,088)	**(2,277)**	(1,441)	**(516)**	(1,447)
Other assets	**(40)**	1,994	**(3,764)**	2,127	**-**	462
Increase (decrease) in liabilities:						
Accounts payable - purchased power and gas	**27,790**	(5,175)	**6,570**	(3,572)	**-**	-
Other accounts payable and accrued expenses	**1,203**	(6,046)	**642**	(5,958)	**1,996**	(3,877)
Accrued payment in lieu of taxes	**7,884**	-	**1,072**	1	**-**	-
Customer deposits	**1,302**	1,786	**443**	(424)	**92**	509
Insurance reserves	**(16)**	556	**(368)**	(337)	**517**	(484)
Medical benefit accrual	**3,815**	(215)	**1,739**	(24)	**1,137**	(49)
Other liabilities	**(1,406)**	(257)	**1,307**	(92)	**(147)**	135
Total adjustments	**190,839**	192,777	**(3,228)**	6,075	**(6,087)**	7,129
Net cash provided by operating activities	**$ 242,982**	$ 190,042	**$ 46,449**	$ 13,817	**$ 22,282**	$ 16,886
Reconciliation of cash and cash equivalents per statements of cash flows to the statements of net position:						
Restricted funds	**$ 66,423**	$ 104,747	**$ 22,904**	$ 30,991	**$ 16,211**	$ 13,395
Less investments included in restricted funds	**(11,091)**	(11,511)	**(5,142)**	(5,599)	**(4,359)**	(3,910)
Cash and cash equivalents included in restricted funds	**55,332**	93,236	**17,762**	25,392	**11,852**	9,485
Current assets - cash and cash equivalents	**138,013**	105,004	**46,280**	44,900	**6,784**	16,504
Total cash and cash equivalents	**$ 193,345**	$ 198,240	**$ 64,042**	$ 70,292	**$ 18,636**	$ 25,989

See accompanying notes.

1. Summary of Significant Accounting Policies

Organization

Memphis Light, Gas and Water Division ("MLGW"), a division of the City of Memphis, Tennessee (the "City"), was created by an amendment to the City Charter by Chapter 381 of the Private Acts of the General Assembly of Tennessee (the "Charter"), adopted March 9, 1939, as amended. MLGW is managed by its President, a five member Board of Commissioners, and two non-voting countywide Advisory Board members that are nominated by the City Mayor and approved by the Memphis City Council (the "Council"). MLGW, through its three divisions, provides electricity, gas and water to customers in Shelby County, Tennessee, which includes the City. MLGW's annual budget and electric, gas and water rates require the approval of the Council. MLGW must also obtain the approval of the Council before incurring certain obligations.

Basis of Presentation

The financial statements present only the Electric, Gas and Water Divisions of MLGW in conformity with accounting principles generally accepted in the United States of America that are applicable to a proprietary fund of a government unit. The accompanying financial statements present the separate financial positions, results of operations, and cash flows of each of the three divisions--Electric, Gas and Water--(the "Divisions") of MLGW, but do not present the financial position, results of operations, or cash flows of MLGW, a division of the City of Memphis. Accordingly, the accompanying disclosures relate separately to the Divisions, as applicable, and not collectively to MLGW. Unless expressly stated, each disclosure, including references to "MLGW" herein, applies solely to each of the separate divisions on an individual basis. The Divisions collectively pool resources for investing purposes and collectively participate in a pension plan and OPEB trust. Accordingly, certain disclosures for investments, the employee retirement system and other post employment benefits are presented on a combined basis. These statements are not intended to present the financial position of the City, the results of the City's operations or the cash flows of the City's funds, nor do they represent the financial position, results of operations, or cash flows of MLGW's Retirement and Pension System discussed in Note 7 or the Other Postemployment Benefits ("OPEB") Trust discussed in Note 8.

Basis of Accounting

MLGW is required by state statute and the Charter to maintain separate accounting for each division and to allocate among the Divisions, on an equitable basis, joint expenses, including those related to common facilities. MLGW utilizes direct cost methods where applicable. For expenses not directly charged to a specific division, internally developed cost allocation methods are used based on the function performed. Each division is separately financed, and its indebtedness is repayable from its net revenues.

Where applicable, the Federal Energy Regulatory Commission's ("FERC") (Electric and Gas Divisions) and the National Association of Regulatory Utility Commissioners' ("NARUC") (Water Division) Uniform Systems of Accounts are used. MLGW is not subject to the jurisdiction of federal or state regulatory commissions.

1. Summary of Significant Accounting Policies (continued)

Basis of Accounting (continued)

MLGW prepares its financial statements in accordance with the provisions of GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, paragraphs 476-500, for regulated operations. These paragraphs recognize that accounting for rate regulated enterprises should reflect the relationship of costs and revenues introduced by rate regulation.

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, MLGW has recognized certain regulatory assets and regulatory liabilities in the accompanying Statements of Net Position.

In the event MLGW no longer meets the criteria for regulated operations under GASB 62, MLGW would be required to recognize the effects of any regulatory change in assets or liabilities in its Statements of Revenues, Expenses and Changes in Net Position. The following are the regulatory assets and liabilities included in the Statements of Net Position:

1. Summary of Significant Accounting Policies (continued)

Regulatory Accounting (continued)

	Electric Division		Gas Division		Water Division	
	2018	**2017**	**2018**	**2017**	**2018**	**2017**
Regulatory Assets:						
Current:						
Unrecovered purchased power/gas cost	**$ 9,773**	$ 3,350	**$ -**	$ 788	**$ -**	$ -
Meter replacement	**757**	704	**1,070**	845	**252**	202
Unamortized debt expense	**131**	267	**63**	65	**65**	67
Total current	**10,661**	4,321	**1,133**	1,698	**317**	269
Non-Current:						
Meter replacement	**11,082**	10,933	**17,085**	14,054	**2,996**	2,465
Unamortized debt expense	**1,208**	1,339	**609**	672	**621**	686
Total non-current	**12,290**	12,272	**17,694**	14,726	**3,617**	3,151
Total Regulatory Assets	**$22,951**	$16,593	**$18,827**	$16,424	**$ 3,934**	$ 3,420
Regulatory Liabilities:						
Current:						
Purchased gas adjustment	**$ -**	$ -	**$ 2,795**	$ 1,198	**$ -**	$ -
Total Regulatory Liabilities	**$ -**	$ -	**$ 2,795**	$ 1,198	**$ -**	$ -

Fair Value of Financial Instruments

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The carrying amounts of cash and cash equivalents, investments, restricted fund investments, accounts receivable and accounts payable are a reasonable estimate of their fair values. The estimated fair values of MLGW's other financial instruments have been determined by MLGW using available market information. All investments are carried at fair value and changes in the fair values of investments are included in investment income in the accompanying Statements of Revenues, Expenses and Changes in Net Position.

MLGW categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

1. Summary of Significant Accounting Policies (continued)

Fair Value of Financial Instruments (continued)

MLGW had the following recurring fair value measurements as of December 31, 2018:

- U.S. Treasury Securities of $103,295 (Level 1 inputs)
- Commercial Paper of $145,163; Government Mortgage-backed Securities of $44,354; and U.S. Government Agencies of $30,437 (Level 2 inputs)

MLGW has the following recurring fair value measurements as of December 31, 2017:

- U.S. Treasury Securities of $81,570 (Level 1 inputs)
- Commercial Paper of $166,309; Corporate Bonds of $531; Government Mortgage-backed Securities of $46,232; and U.S. Government Agencies of $46,884 (Level 2 inputs)

Cash and cash equivalents

MLGW considers all highly liquid investments with maturities of three months or less when purchased to be cash equivalents.

Accounts Receivable

Accounts receivables result from charges for both utilities and other ancillary services provided by MLGW, and include wholesale, residential, commercial, industrial and government customers in the Shelby County, Tennessee, geographic area. Accounts receivable are potentially exposed to concentrations of credit risk. As a general policy, customer deposits are required for receivables unless or until the customer has established a good credit history. Accounts receivable are stated at the amount management expects to collect from outstanding balances.

As of December 31, 2018 and 2017, accounts receivable and allowances for doubtful accounts were as follows:

	Electric Division		Gas Division		Water Division	
	2018	**2017**	**2018**	**2017**	**2018**	**2017**
Accounts Receivable	**$ 101,074**	$ 108,008	**$ 46,898**	$ 37,654	**$ 19,477**	$ 17,204
Allowance for doubtful accounts	**(9,167)**	(10,833)	**(627)**	(599)	**(628)**	(546)
Total A/R, net of allowance	**$ 91,907**	$ 97,175	**$ 46,271**	$ 37,055	**$ 18,849**	$ 16,658

1. Summary of Significant Accounting Policies (continued)

Accounts Receivable (continued)

MLGW performs a monthly analysis of outstanding trade receivables to assess the likelihood of collection. For aged receivable balances, MLGW records an allowance to adjust the trade receivable to MLGW's best estimate of the amount it will ultimately collect. Such allowances are netted against operating revenues.

MLGW's policy is to write off trade receivables after 150 days of non-payment. The bad debt amounts netted against operating revenues are as follows:

	2018	2017
Electric	**$ 4,736**	$ 5,549
Gas	**1,347**	1,749
Water	**900**	1,004

Unbilled Revenues

MLGW customers are spread across twenty-one different billing cycles. Each cycle can range from twenty-five to thirty-five days. The summation of these twenty-one cycles represents a revenue month. Billing cycles do not correspond to a calendar month and, thus, have days that fall into two or more calendar months. Revenue is reported on a calendar month basis. Unbilled revenue represents management's estimate of the revenue earned for days of service that have not been billed as of year-end.

Prepaid Power Cost

Electric Division prepaid power cost represents the unamortized amount of prepaid power under the prepaid electricity agreement signed with Tennessee Valley Authority ("TVA") on November 19, 2003. Under the prepay agreement, MLGW issued revenue bonds with a face value of $1,392,170 and a premium of $121,247 to make an upfront payment of $1,500,000 to TVA. Under the terms of the agreement, MLGW received a fixed discount on the monthly power purchased for the fifteen year term of the agreement, which expired in November 2018. The total fixed discount under the agreement was sufficient to meet the debt service requirements and yield approximately $13,000 in annual power cost savings. The monthly fixed discount is allocated to prepaid power cost and other income under the interest method based on the debt service requirements of the associated debt. Total prepaid power cost at December 31, 2018 and 2017 was $0 and $112,822 respectively. As it relates to debt issued to finance the cost of this transaction, the amount of interest cost incurred and charged to electric expense in 2018 and 2017 totaled $4,197 and $8,873 respectively. See Note 11 (Bonds) and Note 12 (Rates and Energy Supplies) for further disclosure of the revenue bonds and subsequent refinancing.

Inventories and Stored Natural Gas

Inventories, consisting primarily of materials and supplies inventory, and stored natural gas are valued at cost using the average cost method.

1. Summary of Significant Accounting Policies (continued)

Restricted Funds and Related Reserves

Certain MLGW assets are restricted for specific purposes. Legal and contractual agreements restrict amounts for debt service, refund of customer deposits, futures margin requirements, and capital improvements, while Board of Commissioners enacted provisions restrict funds for self-insurance and additional capital improvements. Restricted funds are first used for expenses when available, with the exception of the insurance reserve fund for casualties, which is used at the discretion of management depending on the severity of the catastrophe and the availability of funds.

The Electric and Gas Divisions maintain a cash margin account with its futures clearing member. The clearing member requires that a minimum cash margin be maintained based on the value of the Division's outstanding derivative positions. The minimum cash margin requirements are considered restricted and are reflected in restricted assets in the accompanying Statements of Net Position. The amounts of cash in excess of the minimum cash margin requirement are included in cash and cash equivalents.

Construction funds are generally maintained for the purpose of paying for certain repairs and capital additions and improvements. The respective bond resolutions of the Electric, Gas and Water Divisions allow for funding for future construction.

The insurance reserves for injuries and damages are maintained for estimated liabilities incurred and risks assumed on claims for injuries and damages. The insurance reserves for casualties are maintained at discretionary amounts to partially cover losses of a catastrophic nature which are not ordinarily insurable or which are not insurable on an economical basis.

Medical benefit reserves are maintained for MLGW's medical insurance program, which serves employees and retirees. The medical benefit reserves represent the estimated costs incurred but not yet paid in providing medical benefits to employees and retirees which are not insured by third party providers.

Since MLGW is self-insured for insurance and medical benefit costs, the Board of Commissioners has authorized the restriction of assets equal to the computed reserves.

Customer deposit funds are maintained for the future repayment of deposits collected from customers without adequate credit history, in accordance with MLGW's policy and the respective customer service agreement.

Bond reserve and debt service funds are restricted under the terms of the respective bond indentures to pay current bond principal and interest as these obligations become due.

The Water Division maintains a ground water reserve fund in accordance with a five year Agreement entered on July 1, 2018 into by and between MLGW and the University of Memphis (University) on behalf of the Herff College of Engineering's Center for Applied Earth Science and Engineering Research (CAESAR). The University was awarded $1,000 a year to study clay breaches in the Memphis aquifer

1. Summary of Significant Accounting Policies (continued)

Restricted Funds and Related Reserves (continued)

and their impacts to water quality. A resolution was approved by the City Council on January 9, 2018 to increase water annual sales revenue of 1.05% to be effective with meters read on Cycle 1 of the January 2018 revenue month to fund the aquifer research (see Note 12). The funds will be used to cover the deliverables in accordance to the Agreement for the groundwater study.

Customer Deposits

Customers that do not have adequate credit history are required to make utility deposits before services are provided. Deposits are refunded or applied toward a customer's bill after a 24-month good pay status. Deposits are allocated to the Electric, Gas and Water Divisions based upon each division's percentage of total sales revenue of the previous year-end.

Utility Plant

The costs of additions and replacements of units of property are capitalized. Costs include contracted work, direct labor and materials, allocable overhead and where applicable, allowances for borrowed funds used during construction. Donated assets are valued at acquisition value at the acquisition date. Generally, acquisition value represents the price that would be paid to acquire an asset with equivalent service potential in an orderly market transaction at the acquisition date. Costs are reduced by contributions in aid of construction. Upon retirement of property units, the original cost, plus removal cost, minus salvage is charged to either accumulated depreciation or accumulated amortization. The units of property adopted are related to those suggested by FERC for the Electric and Gas Divisions and NARUC for the Water Division, which allow for the reduction of plant cost recovered through contributions in aid of construction as opposed to recovery of costs through future regulatory rates.

In January 2018, in accordance with GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period,* MLGW discontinued recognizing an allowance for borrowed funds used during construction. An allowance for borrowed funds used during construction was computed at actual interest rates to the extent that major projects were financed by long-term debt. In 2018 and 2017, the amount of interest capitalized in the Electric Division was $0 and $172, respectively. In 2018 and 2017, the amount of interest capitalized in the Water Division was $0 and $56, respectively. Interest on other debt is not capitalized, as it is recovered through current revenues. The amount of interest cost incurred and charged to electric expense in 2018 and 2017 totaled $6,160 and $4,159, respectively. The amount of interest cost incurred and charged to gas expense in 2018 and 2017 totaled $2,401 and $1,469, respectively. The amount of interest cost incurred and charged to water expense in 2018 and 2017 totaled $1,864 and $1,358, respectively.

Depreciation and amortization are computed using the straight-line method based on estimated service lives of various classes of depreciable property at rates equivalent to annual composite rates of approximately 2.9% for the electric division, 2.8% for the gas division and 1.9% for the water division.

1. Summary of Significant Accounting Policies (continued)

Utility Plant (continued)

Computations of the estimated service lives are the result of various depreciation studies and comparisons with industry standards. For assets owned by one division, but jointly used by more than one division, the other divisions share the costs by paying rent to the owning division to cover depreciation, interest, in lieu of taxes, and transfers.

Futures, Options and Swap Contracts

The Gas Division enters into futures contracts, swaps, and options on futures contracts as cash flow hedges to manage the risk of volatility in the market price of natural gas on anticipated purchase transactions. The Electric Division periodically enters into futures contracts, swaps, and options on futures contracts as cash flow hedges to manage the risk of volatility in the market price of unleaded gasoline and diesel fuel on anticipated purchase transactions. The market values of the open derivative positions are reported on the Statement of Net Position as derivative financial instruments. The changes in fair market value are recognized as deferred inflows (gains) or deferred outflows (losses) until the related gas purchases are recognized in the Statement of Revenues, Expenses and Changes in Net Position.

Bond Premiums, Discounts and Issuance Costs

Bond premiums and discounts, as well as issuance costs, are deferred and amortized using the interest method over the lives of the applicable bond issues. Long-term debt is reported net of the applicable bond premium or discount. Unamortized bond issuance costs are accounted for as a regulatory asset. As such, bond issue costs are capitalized and amortized over the term of the related debt.

Net Position

Net position is classified into three components – net investment in capital assets, restricted, and unrestricted. These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is 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.
- Restricted net position – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets.
- Unrestricted net position – This component of net position is the net amount of the 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.

1. Summary of Significant Accounting Policies (continued)

Revenues and Expenses

Revenues are recognized when earned which generally occurs when electricity, gas, or water is delivered to the customer. Customer meters are read and bills are rendered monthly. MLGW records an estimate for unbilled revenues earned from the dates its customers were last billed to the end of each month.

MLGW distinguishes between operating and non-operating revenues and expenses. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with an enterprise fund's principal operations. The principal operating revenues of MLGW consist of electric, gas and water sales and related activities. Non-operating revenues consist of transmission credits, the non-power cost portion of the prepaid electricity discount (ended in December 2018), investment income and other ancillary activities. Transmission credits are fees paid by the Tennessee Valley Authority for its use of the Electric Division's transmission facilities in supplying power to MLGW.

Operating expenses include the cost of purchased power and gas, water production costs, operation and maintenance expenses, depreciation on capital assets and payments in lieu of taxes. Expenses not meeting this definition are reported as non-operating expenses.

Deferred Outflows and Inflows of Resources

MLGW adheres to generally accepted accounting principles as it relates to the recognition of deferred outflows of resources and deferred inflows of resources. A deferred outflow of resources is defined as a consumption of net assets that is applicable to a future reporting period and a deferred inflow of resources is defined as an acquisition of net assets that is applicable to a future reporting period.

In accordance with GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, MLGW recognizes deferred outflows and inflows of resources associated with the biennial measurement and recognition of MLGW's net OPEB liability and OPEB expense.

In accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*, MLGW recognizes deferred outflows and inflows of resources associated with the annual measurement and recognition of MLGW's net pension liability and pension expense.

Also, in accordance with GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, MLGW recognizes deferred outflows and inflows of resources associated with reporting the fair value change in derivative instruments purchased as a hedge against commodity price risk.

1. Summary of Significant Accounting Policies (continued)

Pensions

For purposes of measuring the Net Pension Liability (Asset) (NPL), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Memphis Light, Gas and Water Retirement and Pension System (the "MLGW Pension Plan") and additions to and deductions from the MLGW Pension Plan's fiduciary net position have been determined on the same basis as they are reported by the Pension Plan. For the purpose, benefits payments (including refunds of employee contribution) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Other Postemployment Benefits

For purposes of measuring the Net OPEB Liability (NOL), deferred outflows of resources and deferred inflows of resources related to OPEB benefits, OPEB expense, information about the fiduciary net position of the Memphis Light, Gas and Water OPEB Trust ("OPEB Trust") and additions to and deductions from the MLGW OPEB Trust fiduciary net position have been determined on the same basis as they are reported by the MLGW OPEB Trust. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Related Parties

MLGW conducts business with related parties as "arm's length" transactions: generally, MLGW provides utility and related services to and receives payments from these parties in the same manner as other non-related customers. Major related party entities include the City of Memphis government. For the years ending December 31, 2018 and 2017, receivables from related parties for utility construction, pole rentals and utility related services excluding utility bills were $1,563 and $1,901, respectively.

As of December 31, 2018, the only free service provided to the City is water for firefighting. Free water service provided to the City for public purposes is estimated to be $39 for 2018 and $44 for 2017.

The Electric, Gas and Water Divisions make transfers to the City. See Note 14 (Transfers to City).

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

1. Summary of Significant Accounting Policies (continued)

Events occurring after reporting date

Management has evaluated events and transactions that have occurred between December 31, 2018 and June 5, 2019, which is the date that the financial statements were available to be issued, for possible recognition or disclosure in the financial statements. On May 23, 2019, S&P Global Ratings lowered its long-term rating on MLGW's senior lien electric system revenue debt to 'AA-' from 'AA'. The outlook is stable.

Reclassifications

Certain amounts in the 2017 financial statements have been reclassified to conform to the 2018 presentation.

Recent Accounting Standards

Effective for fiscal year 2018, MLGW adopted the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.* This Statement replaces Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions* that compared the cost of OPEB with the period in which service was rendered. This Statement establishes new standards for recognizing and measuring liabilities, expenses, deferred outflows of resources, and deferred inflows of resources regarding OPEB. The new Statement requires the presentation of the liability for OPEB obligations in the employer's financial statements. This Statement also establishes more extensive note disclosures and required supplementary information for accounting and financial reporting requirements for state and local governments with OPEB plans.

Effective for fiscal year 2018, MLGW adopted the provisions of GASB Statement No. 85, *Omnibus 2017.* The objective of this Statement is to address practice issues that have arisen during the implementation and application of certain GASB Statements. This Statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits). These updates either provide clarification, correction, or additional guidance on the topics covered. Adoption of this Statement did not have any effect on the Divisions' financial statements.

Effective for fiscal year 2018, MLGW adopted the provisions of GASB Statement No. 86, *Certain Debt Extinguishment Issues.* This Statement improves financial reporting consistency for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources (other than the proceeds of refunding debt) are placed in an irrevocable trust for extinguishing of the debt. Adoption of this Statement did not have any effect on the Divisions' financial statements.

Effective for fiscal year 2018, MLGW early adopted the provisions of GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period.* The objectives of this

1. Summary of Significant Accounting Policies (continued)

Recent Accounting Standards (continued)

Statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and to simplify accounting for interest cost incurred before the end of a construction period. After adoption of Statement No. 89, interest cost incurred before the end of a construction period will no longer be included in the historical cost of capital assets reported in a business-type activity or enterprise fund of a governmental entity.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities.* This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds, and (4) custodial funds. The criteria for identifying fiduciary activities are established and the focus for the criteria is on (1) whether a government is controlling the assets of the activity and (2) the beneficiaries with whom a fiduciary relationship exists. The provisions of the Statement are effective for financial statements for periods beginning after December 15, 2018. MLGW has not elected early implementation of this standard and has not completed the process of evaluating the impact of this statement on its financial statements.

In June 2017, GASB issued Statement No. 87, *Leases.* This Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. The provisions of the statement are effective for financial statements for periods beginning after December 15, 2019. MLGW has not elected early implementation of this standard and has not completed the process of evaluating the impact of the statement on its financial statements.

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements.* This Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. The provisions of the Statement are effective for financial statements for periods beginning after June 15, 2018. MLGW has not elected early implementation of this standard and has not completed the process of evaluating the impact of the statement on its financial statements.

2. Deposits and Investments

The MLGW Statement of Investment Policy has been adopted and approved by the MLGW Board of Commissioners. This policy sets forth the investment and operational policies for the management of the public funds of MLGW. The Board of Commissioners has the power to invest MLGW funds in accordance with the prudent investor rule. The Board members exercise authority and control over MLGW's investment portfolio by setting policies which MLGW's investment staff executes either internally, or through the use of external prudent experts.

2. Deposits and Investments (continued)

Custodial Credit Risk

Deposits

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, MLGW will not be able to recover its deposits or will not be able to recover collateral securities that are in possession of an outside party. Deposits are exposed to custodial credit risk if they are not covered by depository insurance and are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent but not in the depository-government's name.

MLGW deposits consist of bank deposits. The bank deposits are insured up to $250 by the Federal Deposit Insurance Corporation (FDIC) and the remainder is covered by the State of Tennessee Collateral Pool; certificates of deposit must be placed directly with depository institutions.

The depository bank shall provide collateral for MLGW deposits in accordance with requirements for public funds deposits in Tennessee. The market value of the pledged securities in the collateral pool must equal at least 105% of the value of the deposit secured, less the amount protected by federal deposit insurance. As of December 31, 2018, MLGW deposits with financial institutions were $105,335. All bank deposits were maintained in collateralized accounts or covered by federal depository insurance and were not exposed to custodial credit risk.

Investments

The investment policy governs the overall administration and investment management of the funds held in the MLGW investment portfolio. MLGW is authorized by the Board of Commissioners to invest in the following investments as authorized by state law and as it deems proper: U.S. Treasuries; U.S. government obligations; repurchase agreements; commercial paper with specified ratings; bankers' acceptances with specified ratings; bank deposits; certificates of deposit and state's local government investment pool.

MLGW is prohibited from investing in the following securities: purchases on margin or short sales; investments in reverse repurchase agreements; collateralized mortgage obligations; and "exotic" derivatives such as range notes, dual index notes, inverse floating rate notes and deleveraged notes, or notes linked to lagging indices or to long-term indices.

The following table presents the investments and maturities of MLGW's investment portfolio as of December 31, 2018:

2. Deposits and Investments (continued)

Custodial Credit Risk (continued)

Investments **(continued)**

		Remaining Maturities (in Years)		
Investment Type	**Fair Value**	**Maturities < 1 year**	**Maturities 1 to 4 years**	**Maturities > 4 years**
U.S. Treasuries	$ 103,295	$ 17,685	$ 85,610	$ -
Federal Agency (Fixed Rate)	74,791	40,804	33,987	-
Commercial Paper (Rated AA or higher)	145,163	145,163	-	-
Total Investments	**$ 323,249**	**$ 203,652**	**$ 119,597**	**$ -**

Custodial credit risk for investments is the risk that, in the event of failure of the counterparty to a transaction, MLGW will not be able to recover the value of its investment or collateral securities that are in the possession of another party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either the counterparty, or the counterparty's trust department or agent but not in the name of MLGW. Investments in external investment pools and in money market funds are not exposed to custodial credit risks because their existence is not evidenced by securities that exist in physical or book entry form. To limit its exposure, MLGW's investment policy requires that all securities purchased by MLGW shall be held in safekeeping by a third-party custodial bank or financial institution. None of MLGW's investments at December 31, 2018 were exposed to custodial credit risk.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment in debt securities. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. MLGW's investment policy does not limit investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. However, the investment policy states no investment will have a maturity of greater than four years from date of purchase. As of December 31, 2018, MLGW had purchased no investments in debt securities that were outside of the policy. MLGW uses the segmented time distribution method of disclosure, as shown above, to identify this risk.

Some investments can be highly sensitive to changes in interest rates due to their terms or characteristics. In MLGW's investment portfolio, asset-backed and government mortgage-backed securities are most sensitive to changes in interest rates as their repayments can vary significantly with interest rate changes.

These securities represent 13.7% of the total investment portfolio with a fair value of $44,354 at year-end 2018.

2. Deposits and Investments (continued)

Credit Risk

Credit risk is the risk that an issuer of a debt security will not fulfill its obligation. This credit risk is measured by the credit quality of investments in debt securities as described by nationally recognized statistical rating organizations. Investments in obligations of the U.S. Government or obligations explicitly guaranteed by the U.S. Government are not considered to have credit risk. MLGW debt securities that were subject to credit risk were $145,163, or 44.9% of total investments. The debt securities mentioned above have a remaining maturity of one year or less.

MLGW's ratings and policy limits as of December 31, 2018 are as follows:

Investment Type	Fair Value	S&P Rating	Moody's Rating
Commercial Paper	$ 25,232	AAA	Aaa
Commercial Paper	36,981	AA+	Aaa
Commercial Paper	16,138	AA+	Aa1
Commercial Paper	28,820	AA	Aa2
Commercial Paper	7,573	AA-	Aa2
Commercial Paper	30,419	AA-	Aa3
Total credit risk debt securities	145,163		
U.S. Treasuries	103,295	AA+u	Aaa
Federal Agency (Fixed Rate)	74,791	AA+	Aaa
U.S. Government and Agencies	178,086		
Total debt securities investments	**$ 323,249**		

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Investments in any one issuer that represent five percent or more of total investments must be disclosed by amount and issuer. Investments issued or explicitly guaranteed by the U.S. government and investments in bank deposits, external investment pools, and other pooled investments are excluded from this requirement.

2. Deposits and Investments (continued)

Concentration of Credit Risk (continued)

In accordance with the investment policy, no more than 10% of MLGW's portfolio will be invested in the securities of any single issuer with the following exceptions: U.S. Government Obligations up to 100% of the portfolio book value for any single issuer at the date of acquisition. In addition, MLGW's investment policy seeks to diversify its portfolio by limiting the percentage of the portfolio that may be invested in any one type of instrument as follows:

U.S. Treasuries	100%	maximum
Federal Agency (Fixed Rate)	100%	maximum
Federal Agency (Callable)	50%	maximum
Repurchase Agreements	50%	maximum
Commercial Paper (Rated AA or higher)	90%	maximum
Banker's Acceptance (Rated AA or higher)	60%	maximum
Certificates of Deposit	20%	maximum
Municipal Obligations	20%	maximum
Tennessee LGIP	40%	maximum

In accordance with GASB Statement No. 40, governments should provide information about investments in any one issuer that represents 5 percent or more of total investments. As of December 31, 2018, the investments in any one issuer of commercial paper that represents 5% or more of MLGW's investments are as follows:

Issuer	Reported Amount	Percentage of Portfolio
Chevron Corp	$ 16,439	5.09%
Exxon Mobil Corp	24,829	7.68%
Koch Industries Inc	20,757	6.42%
Total	**$ 62,025**	

2. Deposits and Investments (continued)

Restricted and Unrestricted Funds

Restricted funds, cash and cash equivalents, and investments consisted of the following as of December 31, 2018 and 2017:

	Electric Division		Gas Division		Water Division	
	2018	2017	**2018**	2017	**2018**	2017
Restricted fund:						
Cash and cash equivalents	**$ 55,332**	$ 93,236	**$ 17,762**	$ 25,391	**$ 12,246**	$ 9,485
Investments	**11,091**	11,511	**5,142**	5,600	**3,965**	3,910
Total restricted funds	**$ 66,423**	$ 104,747	**$ 22,904**	$ 30,991	**$ 16,211**	$ 13,395

	Electric Division		Gas Division		Water Division	
	2018	2017	**2018**	2017	**2018**	2017
Unrestricted fund:						
Cash and cash equivalents	**$ 138,013**	$ 105,004	**$ 46,280**	$ 44,900	**$ 6,784**	$ 16,504
Investments	**100,355**	85,123	**31,738**	35,184	**4,939**	13,371
Total unrestricted funds	**$ 238,368**	$ 190,127	**$ 78,018**	$ 80,084	**$ 11,723**	$ 29,875

3. Notes Receivable

In 2002, MLGW and the Valero Refining Group ("Valero") entered into an agreement, whereby MLGW provided for the construction of two pipelines (14" and 20") and leased them to Valero for the purpose of transporting crude oil and refinery products. The lease provided for monthly payments of principal and interest and had an initial term of 15 years, which ended October 31, 2016 and July 31, 2016, for the 14" Pipeline and the 20" Pipeline, respectively.

In November 2016, MLGW and Valero executed the secondary agreement of the expired 15 year initial term lease agreement, whereby Valero will continue to provide monthly payments under a secondary term of 30 years, ending October 31, 2046 for the 14" Pipeline and July 31, 2046 for the 20" Pipeline, subject to any early termination pursuant to the terms of the Pipeline Agreements.

Scheduled lease payments for January – June 2019 total $399. Effective July 1, 2019 and each July 1 thereafter throughout the Secondary Term, the monthly fee applicable for the previous year for the 20" Pipeline and 14" Pipeline, respectively, shall be adjusted based on the Producer Price Index for Finished Goods (PPI-FG) formula per the contract.

3. Notes Receivable (continued)

The Valero lease receivable is included in notes receivables in the accompanying 2018 Gas Division's Statements of Net Position, except for the current portion of $797, which is included in other current assets.

4. Utility Plant

Utility plant activity for the years ended December 31, 2018 and 2017 is as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
Year ended December 31, 2018				
Electric Division				
Capital assets not being depreciated:				
Land	$ 38,415	$ 122	$ -	$ 38,537
Land - Non-utility	15,345	-	-	15,345
Construction in progress	87,406	198,668	(202,187)	83,887
Total capital assets not being depreciated	141,166	198,790	(202,187)	137,769
Capital assets being depreciated or amortized:				
Structures and improvements	65,788	2,444	-	68,232
Transmission and distribution plant equipment	1,495,913	76,349	(18,840)	1,553,422
General plant equipment	177,108	2,831	(5,033)	174,906
Intangibles: Software	12,085	-	-	12,085
Total capital assets being depreciated or amortized	1,750,894	81,624	(23,873)	1,808,645
Less accumulated depreciation and amortization	(782,462)	(59,570)	25,244	(816,788)
Total capital assets being depreciated or amortized, net	968,432	22,054	1,371	991,857
Total capital assets, net	$ 1,109,598	$ 220,844	$ (200,816)	$ 1,129,626

4. Utility Plant (continued)

Year ended December 31, 2018	Beginning Balance	Increases	Decreases	Ending Balance
Gas Division				
Capital assets not being depreciated:				
Land	$ 7,312	$ -	$ -	$ 7,312
Construction in progress	23,425	47,364	(39,507)	31,282
Plant held for future use	212	-	-	212
Total capital assets not being depreciated	30,949	47,364	(39,507)	38,806
Capital assets being depreciated or amortized:				
Structures and improvements	67,771	328	(12)	68,087
Processing and distribution plant equipment	494,512	35,539	(8,341)	521,710
General plant equipment	71,485	105	(3,262)	68,328
Intangibles: Software	53,568	3,611	-	57,179
Non-utility plant equipment	200	-	-	200
Total capital assets being depreciated or amortized	687,536	39,583	(11,615)	715,504
Less accumulated depreciation and amortization	(318,335)	(27,461)	12,732	(333,064)
Total capital assets being depreciated or amortized, net	369,201	12,122	1,117	382,440
Total capital assets, net	$ 400,150	$ 59,486	$ (38,390)	$ 421,246

Year ended December 31, 2018	Beginning Balance	Increases	Decreases	Ending Balance
Water Division				
Capital assets not being depreciated:				
Land	$ 2,372	$ -	$ -	$ 2,372
Construction in progress	26,466	31,264	(17,888)	39,842
Total capital assets not being depreciated	28,838	31,264	(17,888)	42,214
Capital assets being depreciated or amortized:				
Structures and improvements	53,887	97	-	53,984
Pumping, transmission and distribution plant equipment	407,355	17,641	(3,132)	421,864
General plant equipment	35,645	-	(381)	35,264
Intangibles: Software	2,177	-	-	2,177
Total capital assets being depreciated or amortized	499,064	17,738	(3,513)	513,289
Less accumulated depreciation and amortization	(198,674)	(11,748)	4,649	(205,773)
Less acquisition adjustment	(1,440)	964	-	(476)
Total capital assets being depreciated or amortized, net	298,950	6,954	1,136	307,040
Total capital assets, net	$ 327,788	$ 38,218	$ (16,752)	$ 349,254

4. Utility Plant (continued)

	Beginning Balance	Increases	Decreases	Ending Balance
Year ended December 31, 2017				
Electric Division				
Capital assets not being depreciated:				
Land	$ 38,403	$ 12	$ -	$ 38,415
Land - Non-utility	15,345	-	-	15,345
Construction in progress	102,445	80,121	(95,160)	87,406
Total capital assets not being depreciated	156,193	80,133	(95,160)	141,166
Capital assets being depreciated or amortized:				
Structures and improvements	62,940	2,945	(97)	65,788
Transmission and distribution plant equipment	1,419,307	88,195	(11,589)	1,495,913
General plant equipment	179,917	3,957	(6,766)	177,108
Intangibles: Software	12,032	53	-	12,085
Total capital assets being depreciated or amortized	1,674,196	95,150	(18,452)	1,750,894
Less accumulated depreciation and amortization	(750,926)	(65,366)	33,830	(782,462)
Total capital assets being depreciated or amortized, net	923,270	29,784	15,378	968,432
Total capital assets, net	$ 1,079,463	$ 109,917	$ (79,782)	$ 1,109,598

	Beginning Balance	Increases	Decreases	Ending Balance
Year ended December 31, 2017				
Gas Division				
Capital assets not being depreciated:				
Land	$ 7,313	$ -	$ (1)	$ 7,312
Construction in progress	71,203	44,697	(92,475)	23,425
Plant held for future use	212	-	-	212
Total capital assets not being depreciated	78,728	44,697	(92,476)	30,949
Capital assets being depreciated or amortized:				
Structures and improvements	68,127	42	(398)	67,771
Processing and distribution plant equipment	471,442	36,490	(13,420)	494,512
General plant equipment	76,218	2,376	(7,109)	71,485
Non-utility plant equipment	200	53,568	-	53,568
Total capital assets being depreciated or amortized	615,987	92,476	(20,927)	687,336
Less accumulated depreciation and amortization	(311,085)	(32,682)	25,432	(318,335)
Total capital assets being depreciated or amortized, net	304,902	59,794	4,505	369,201
Total capital assets, net	$ 383,630	$ 104,491	$ (87,971)	$ 400,150

4. Utility Plant (continued)

	Beginning Balance	Increases	Decreases	Ending Balance
Year ended December 31, 2017				
Water Division				
Capital assets not being depreciated:				
Land	$ 2,372	$ -	$ -	$ 2,372
Construction in progress	22,302	43,246	(39,082)	26,466
Total capital assets not being depreciated	24,674	43,246	(39,082)	28,838
Capital assets being depreciated or amortized:				
Structures and improvements	50,819	3,317	(249)	53,887
Pumping, transmission and distribution plant equipment	376,572	35,644	(4,861)	407,355
General plant equipment	39,679	121	(4,155)	35,645
Intangibles: Software	2,177	-	-	2,177
Total capital assets being depreciated or amortized	469,247	39,082	(9,265)	499,064
Less accumulated depreciation and amortization	(198,637)	(11,439)	11,402	(198,674)
Less acquisition adjustment	(2,404)	964	-	(1,440)
Total capital assets being depreciated or amortized, net	268,206	28,607	2,137	298,950
Total capital assets, net	$ 292,880	$ 71,853	$ (36,945)	$ 327,788

Total net capital asset changes include additions to construction in progress, transfers to or from other accounts, depreciation and amortization and the effects of sales, retirements, and contribution in aid of construction.

MLGW's planned construction program expenditures for 2019 are estimated as follows (unaudited):

Electric Division	$ 60,000
Gas Division	26,000
Water Division	15,000

In June 1999, the Water Division purchased the Shelby County Water Distribution System and related assets from Shelby County, Tennessee. The difference between the purchase price and the net book value of the assets acquired (the "acquisition adjustment") is being amortized over twenty years by the Water Division.

5. Futures, Options and Swap Contracts

MLGW uses a range of derivative instruments to hedge commodity risk including futures, options, and swap contracts. The purchase and sale of futures contracts and swap contracts involve highly leveraged and rapidly fluctuating markets that can lead to significant losses for market participants. As such, market participants are required to maintain margin deposits with a Futures Commission Merchant ("FCM") in order to trade in the commodity futures market. These margin deposits are required by the FCM as a

5. Futures, Options and Swap Contracts (continued)

condition of its contract to provide execution, clearing and bookkeeping services relative to the purchase and sale of commodity futures.

The FCM is not subject to state laws which govern financial institutions serving as depositories for municipal funds, but instead is governed by rules and regulations promulgated by the Federal Commodity Futures Trading Commission. The Commodity Exchange Act requires the FCM to segregate all customer transactions and assets from the FCM's proprietary activities.

Futures contracts and swap contracts are marked-to-market daily and valued at closing market prices on the valuation date. The fluctuations in the value of the futures contracts are recorded for financial statement purposes as deferred gains or losses.

MLGW's derivative instruments could be potentially exposed to concentrations of counterparty credit. MLGW's derivatives transactions are conducted directly or indirectly with the New York Mercantile Exchange ("NYMEX"). By clearing all trades through NYMEX, MLGW's exposure to counterparty credit risk for such transactions is largely minimized.

Gas Division:

The Gas Division enters into futures contracts, swaps, and options on futures contracts as cash flow hedges to manage the risk of volatility in the market price of natural gas on anticipated purchase transactions. The market values of the open derivative positions are reported on the Statements of Net Position as derivative financial instruments. MLGW maintained a margin deposit balance of $2,686 and $1,473 with its FCM at December 31, 2018 and 2017, respectively.

The schedule below shows the market values and notional amounts of the open futures, swaps, and options on futures contracts as of December 31, 2018 and 2017.

	December 31, 2018		December 31, 2017	
Type	**Market Value**	**Notional Amount**	Market Value	Notional Amount
Futures	**$ 396**	**$ 3,930**	$ -	$ -
Options	**1,150**	**465,105**	18	56,544
Total	**$ 1,546**	**$ 469,035**	$ 18	$ 56,544

5. Futures, Options and Swap Contracts (continued)

The schedule below reflects the deferred gains (losses) at year end associated with recording open derivative positions.

Type	**December 31, 2018** **Deferred Gains (Losses)**	December 31, 2017 Deferred Gains (Losses)
Futures	**$395**	$ -
Options	**(978)**	125
Total	**($583)**	$125

Deferred costs at year end associated with gains (losses) on closed derivative positions are shown below.

Type	**December 31, 2018** **Deferred Gains (Losses)**	December 31, 2017 Deferred Gains (Losses)
Options	**($206)**	($211)
Total	**($206)**	($211)

The deferred gains (losses) at year end for the open derivative positions are reported on the Statement of Net Position as deferred inflows of resources and deferred outflows of resources, respectively. The deferred gains and losses derived from closed derivative positions are reported as other current assets and liabilities, respectively.

Electric Division:

The Electric Division enters into swap contracts to manage the risk of volatility in the market price of unleaded and diesel fuel on anticipated purchase transactions. The balance in MLGW's FCM fuel margin at December 31, 2018 and 2017 was $0 and ($278), respectively.

6. Deferred Compensation Plan

MLGW offers its employees a voluntary compensation plan under Internal Revenue Code Section 457. The plan, available to all full-time MLGW employees, permits them to defer a portion of their salaries until future years. The deferred compensation paid through payroll deduction is not available to employees until termination, retirement, death, or unforeseeable emergency.

The plan provides that assets or income of the plan shall be used for the exclusive purpose of providing benefits for participants and their beneficiaries or defraying reasonable expenses of administration of the plan. Since the assets of the amended plan are held in custodial and annuity accounts for the exclusive benefit of plan participants, the related assets of the plan are not reflected in MLGW's Statements of Net Position.

7. Employee Retirement System

Plan Description

Memphis Light, Gas and Water Retirement and Pension System (the "MLGW Pension Plan") is a single-employer defined benefit pension plan administered by the MLGW Pension Board. The plan covers permanent, full-time employees and appointed commissioners who opt to participate. MLGW issues a separate audited financial report for the MLGW Pension Plan that includes financial statements and required supplementary information. That report may be obtained by writing to Manager, Risk Management, P. O. Box 430, Memphis, TN 38101.

Benefits Provided

The MLGW Pension Plan provides death and disability benefits as well as retirement benefits. MLGW Pension Plan members hired prior to January 1, 2014 who attain the age of fifty-five and retire on or after ten years of creditable service, or attain the age of seventy and retire on or after five years of creditable service, or attain twenty-five years of creditable service regardless of age are entitled to an annual retirement allowance computed by multiplying the applicable percentage for the age of retirement times the number of years of creditable service, which equals the benefit percentage, times the final average compensation.

MLGW Pension Plan members hired on or after January 1, 2014 who attain the age of sixty and retire on or after ten years of creditable service, or attain the age of seventy and retire on or after five years of creditable service, or attain the age of fifty-five with twenty-five years of creditable service are entitled to an annual retirement allowance computed by multiplying the applicable percentage for the age of retirement times the number of years of creditable service, which equals the benefit percentage, times the final average compensation.

Effective January 1, 2001, the following table is the applicable benefit percentage for each year of creditable service at the applicable retirement age under the MLGW Pension Plan:

Retirement Age	Benefit Percentage For Each Year of Creditable Service
59 1/2 and less	2.25%
60	2.30%
61	2.40%
62 and older	2.50%

Final average compensation is the member's basic earnings (which includes member contributions pursuant to Section 414(h) and Section 457 of the Internal Revenue Code (the "Code") for the three consecutive years of creditable service if less than 30 years, two consecutive years if more than 30 years and one year if 35 or more years of creditable service during which the compensation was the highest

7. Employee Retirement System (continued)

Benefits Provided (continued)

plus work out of classification pay, shift differential pay, and automobile allowance for such employees designated by Resolution of the Board of Commissioners.

The annual retirement allowance shall not exceed 85% of the member's final average compensation. The 2018 minimum monthly retirement benefit for all members is the greater of $50 per month per year of service or $500.

Cost of Living Adjustments

As of July 1 of each plan year, each retired participant who (1) has attained age 56 on such date and (2) has been terminated from the employment of the Division for at least one year, shall be entitled to an increase in the amount of his monthly benefit under the MLGW Pension Plan equal to the cost of living adjustment.

A surviving spouse or handicapped child receiving death benefits shall be entitled to a cost of living adjustment if the surviving spouse, or handicapped child has attained age 56 and the deceased participant has separated from service at least one year prior to July 1.

The cost of living adjustment shall be equal to the product of the monthly benefit payable to the participant, the surviving spouse, or handicapped child under the MLGW Pension Plan for the immediately preceding plan year multiplied by the applicable percentage increase in the Consumer Price Index (CPI) for the immediately preceding calendar year.

The applicable percentage increase shall be determined based on the age of the participant, surviving spouse, or handicapped child as of the first day of July of the plan year in which the adjustment is made as follows:

Age	Percentage of CPI Increase
56-58	30%
59-61	60%
62 and older, and all Disabled Participants	75%

7. Employee Retirement System (continued)

Cost of Living Adjustments (continued)

The cost of living adjustment for any retired participant, surviving spouse, or handicapped child in any plan year shall not exceed 5% of the retired participant's, surviving spouse's, or handicapped child's benefit under the MLGW Pension Plan for the immediately preceding plan year. Under no circumstances shall the cost of living adjustment result in a decrease in the benefit of a retired participant, surviving spouse, or handicapped child.

Net Pension Liability (Asset)

The net pension liability (asset) is the difference between the actuarial present value of projected pension benefit payments attributable to employees' past service and the Plan's fiduciary net position. MLGW's net pension liability (asset) was measured as of December 31, 2017 and the total pension liability used to calculate the net pension liability (asset) was determined by an actuarial valuation as of January 1, 2018.

Employees Covered

Plan membership consisted of the following participants as of December 31, 2017 and 2016:

	2017	2016
Retirees and beneficiaries receiving benefits	**2,655**	2,643
Participants inactive during year ended December 31 with vested rights	**42**	44
Active members fully vested	**1,071**	1,074
Active members not vested	**1,568**	1,536
Total	**5,336**	5,297

Contributions

The contribution requirements of pension plan members and MLGW are established and may be amended and approved by the MLGW Pension Board, the MLGW Board of Commissioners and the Memphis City Council. Pension plan members are required to contribute 8% of their annual covered salary. Under Article III, Section 3.2 of the pension plan, MLGW shall contribute to the pension fund such amounts as from time to time are estimated by the actuary. MLGW also funds the 8% pension plan member's contributions on behalf of the president and vice presidents. For 2017, MLGW contributed 13.94% of the annual covered payroll. Employer contributions recognized by the MLGW Pension Plan during 2017 totaled $22,390.

7. Employee Retirement System (continued)

Actuarial Assumptions

The actuarially determined contribution ("ADC") is calculated using a January 1 valuation date as of the beginning of the fiscal year prior to the year in which contributions are reported. Therefore, the ADC for the year ended December 31, 2017 is based on the January 1, 2016 actuarial valuation.

The actuarial assumptions used in the valuation as of December 31, 2017 are based on the results of an experience study for the period January 1, 2009 to December 31, 2013.

Inflation	2.75%
Salary increases	Inflation plus merit increases that vary by age and service ranging from 0.00% to 6.75%
Investment rate of return	7.50% including inflation, net of investment expenses
Cost-of-living adjustments	0.83% for ages 56-58 1.65% for ages 59-61 2.06% for ages 62 and older, and all disabled participants

Pre-retirement mortality rates are based on the RP-2014 Employee Mortality Table with sex-distinct rates. Healthy annuitant mortality rates are based on the RP-2014 Healthy Annuitant Mortality Table with sex-distinct rates, adjusted by a factor of 138%. Disabled annuitant mortality rates are based on the RP-2014 Disabled Retiree Mortality Table with sex-distinct rates, also adjusted by a factor of 138%. All mortality tables above are projected generationally with a modified RPEC2014 projection table using a 15-year convergence period for cohort effects and 10-year convergence period for age/period effects.

The long-term expected rate of return on pension 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 pension 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.

7. Employee Retirement System (continued)

Actuarial Assumptions (continued)

Best estimates of arithmetic real rates of return, after deducting inflation, for each major asset class included in the Pension Plan's target asset allocation are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equity	39%	6.40%
International Equity	12%	8.00%
Fixed Income	29%	2.23%
Alternatives	8%	4.10%
Real Estate	10%	5.10%
Short Term Investments	2%	1.10%
Total	100%	

Discount Rate

The discount rate used to measure the total pension liability is 7.50% as of December 31, 2017. The projection of cash flows used to determine the discount rate assumes that employee contributions will be made at the current 8.00% of pay contribution rate and that MLGW contributions will equal the actuarially determined contribution. For this purpose, only employee and employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Based on those assumptions, the MLGW 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 as of December 31, 2017.

Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate

The following presents the net pension liability (asset) of MLGW as of December 31, 2017, calculated using the discount rate of 7.50%, as well as what MLGW's net pension liability (asset) would be if it were calculated using a discount rate that is one percentage-point lower (6.50%) or one percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
Net Pension Liability (Asset) as of December 31, 2017	$ 122,573	$ (41,007)	$ (177,762)

7. Employee Retirement System (continued)

Pension Plan's Fiduciary Net Position

Detailed information about the MLGW Pension Plan's fiduciary net position is available in the separately issued plan financial statements. For purposes of measuring the net pension liability (asset), all information about the pension plan's assets, deferred outflows of resources, liabilities, deferred inflows of resources, and fiduciary net position have been determined on the same basis as they are reported by the MLGW Pension Plan.

The MLGW Pension Plan's financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles promulgated by the Governmental Accounting Standards Board. Investments are stated at fair value. Benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the terms of the plan.

7. Employee Retirement System (continued)

Schedule of Changes in Net Pension Liability (Asset)

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a)-(b)
Balance at December 31, 2016	$ 1,435,533	$ 1,366,170	$ 69,363
Changes for the Year:			
Service Costs	31,977		31,977
Interest	103,731		103,731
Differences Between Expected and Actual Experience	4,908		4,908
Changes of Assumptions	-		-
Contributions – Employer		22,390	(22,390)
Contributions – Employee		12,959	(12,959)
Net Investment Income		216,498	(216,498)
Benefit Payments / Refunds	(104,919)	(104,919)	-
Administrative Expenses		(860)	860
Net Change	$ 35,697	$ 146,068	$ (110,371)
Balance at December 31, 2017	$ 1,471,230	$ 1,512,237	$ (41,007)

7. Employee Retirement System (continued)

Pension expense for the year ended December 31, 2018	
Service cost	$ 31,977
Interest on Total Pension Liability	103,731
Employee contributions	(12,959)
Adminstrative Expenses	860
Expected return on assets	(99,822)
Expensed portion of current year period differences between expected and actual experience in Total Pension Liability	818
Expensed portion of current year period assumptions changes	-
Current year plan changes	-
Expensed portion of current year period differences between projected and actual investment earnings	(23,335)
Current year recognition of deferred inflows and outflows established in prior years	6,900
Total expense	$ 8,170

Deferred outflows/inflows of resources related to pension

	Deferred Outflows of Resources	Deferred Inflows of Resources
Contributions subsequent to measurement date	$ 22,174	$ -
Net difference between projected and actual earnings on pension plan investments	34,270	(100,080)
Net difference between projected and actual experience in Total Pension Liability	5,229	(12,978)
Assumption changes	-	(7,370)
Total	$ 61,673	$ (120,428)

Note: The $22,174 contribution made subsequent to the measurement date will be recognized as a reduction of the net pension liability in 2019.

7. Employee Retirement System (continued)

	Projected Recognition of Deferred Outflows/(Inflows)						Deferred Outflows/(Inflows) Recognized in Future Years				
	Year Established	Original Balance	Original Amortization Period (Years)	Outstanding Balance at December 31, 2017	Amount Recognized During FYE December 31, 2018	Outstanding Balance at December 31, 2018	2019	2020	2021	2022	2023
Fiscal year Outflows											
Investment	2016	$ 85,673	5	$ 51,404	$ 17,134	$ 34,270	$ 17,135	$ 17,135			
Demographic	2016	2,275	6	1,517	378	1,139	379	379	$ 381		
Demographic	2018	4,908	6	-	818	4,090	818	818	818	$ 818	$ 818
Total Outflows				**$ 52,921**	**$ 18,330**	**$ 39,499**	**$ 18,332**	**$ 18,332**	**$ 1,199**	**$ 818**	**$ 818**
Fiscal year Inflows											
Investment	2015	$ (571)	5	$ (229)	$ (115)	$ (114)	$ (114)				
Demographic	2015	(16,338)	6	(8,169)	(2,723)	(5,446)	(2,723)	$ (2,723)			
Assumption	2015	(21,112)	6	(11,056)	(3,686)	(7,370)	(3,685)	(3,685)			
Investment	2017	(11,042)	5	(8,833)	(2,208)	(6,625)	(2,208)	(2,208)	$ (2,209)		
Demographic	2017	(11,298)	6	(9,415)	(1,883)	(7,532)	(1,883)	(1,883)	(1,883)	$ (1,883)	
Investment	2018	(116,677)	5		(23,335)	(93,341)	(23,335)	(23,335)	(23,335)	(23,336)	
Total Inflows				**$ (37,702)**	**$ (33,950)**	**$ (120,428)**	**$(33,948)**	**$(33,834)**	**$(27,427)**	**$(25,219)**	
Total				**$ 15,219**	**$ (15,620)**	**$ (80,929)**	**$(15,616)**	**$(15,502)**	**$(26,228)**	**$(24,401)**	**$ 818**

Note: In accordance with Paragraph 71 of GASB Statement 68, the difference between projected and actual earnings on investments is recognized over a closed five-year period. The difference between expected and actual total pension liability experience (noted as "Demographic" in the chart above) and the assumption changes (noted as "Assumption" in the chart above) are each recognized over a closed period equal to the average of the expected remaining service lives of all employees who are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period. For 2018, the period is six years.

8. Other Postemployment Benefits

The Memphis Light, Gas and Water Division OPEB Trust ("OPEB Trust") was established for the exclusive benefit of MLGW's retired employees and their dependents (who meet the eligibility requirements) to fund the postemployment benefits provided through the health and welfare benefit plan. Amounts contributed to the OPEB Trust by MLGW are held in trust and are irrevocable and are for the sole and exclusive purpose of funding health and welfare benefits of the eligible participants, and the cost of operating and administering the OPEB Trust. The OPEB Trust is administered by the MLGW OPEB Trust Investment Committee.

MLGW issues a separate audited financial report for the OPEB Trust that includes financial statements and required supplementary information. That report may be obtained by writing to: Manager, General Accounting, P.O. Box 430, Memphis, Tennessee 38101-0430.

Implementation of GASB 75

In fiscal year 2018, MLGW adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"). This statement provides guidance for the

8. Other Postemployment Benefits (continued)

Implementation of GASB 75 (continued)

measurement and recognition of a net OPEB liability and OPEB expense, and includes instruction for balances to be recognized as deferred outflows of resources and deferred inflows of resources. Due to time constraints associated with producing the financial statements and the need to ensure timely filing of such statements with appropriate authorities, MLGW deemed it impractical to restate all prior periods. As such, the cumulative effect of applying this statement is shown in 2018 and it resulted in a reduction in the beginning net position of all three divisions. Beginning net position in the Electric, Gas, and Water Divisions declined by $290,230, $111,181, and $82,216, respectively. Additional impacts to MLGW's financial statements are as follows:

Net OPEB liability – The net OPEB liability reported under GASB 75 is the difference between the actuarial present value of projected OPEB benefit payments attributable to employees' past service and the Plan's fiduciary net position. Previous to this new guidance, a liability was recognized only to the extent that contributions made to the plan were exceeded by the actuarially calculated contributions.

Deferred outflows of resources and deferred inflows of resources – GASB 75 requires recognition of deferred outflows and inflows of resources associated with the difference between projected and actual earnings on Plan investments, to be amortized to OPEB expense over a closed five-year period. Also to be recognized as deferred outflows and inflows of resources are differences between expected and actual experience with regard to economic or demographic factors in the measurement of total OPEB liability, to be amortized to OPEB expense over a closed period equal to the average of the expected remaining service lives of all employees receiving OPEB benefits. Employer contributions to the OPEB trust made between the net OPEB liability measurement date and the employer's fiscal year end are recognized as deferred outflows of resources related to OPEB.

Plan Description

Memphis Light, Gas and Water Division, by resolution of its Board of Commissioners, has established, adopted, and maintains a medical benefits (health and welfare) plan (the "Plan") for its retired employees and their eligible dependents. The Plan is a single-employer defined benefit healthcare plan administered by MLGW.

The Board of Commissioners of Memphis Light, Gas and Water Division serves as the "Trustee" and establishes the policies of the MLGW OPEB Trust. The Trustee shall fulfill the duties of the fiduciary responsible for MLGW OPEB Trust's administration and shall have overall control of the administration of the Plan, with all powers and discretion necessary to enable it to properly carry out its duties. The Trustee delegated the responsibility and authority to administer the assets of the OPEB Trust to the OPEB Trust Investment Committee.

8. Other Postemployment Benefits (continued)

Plan Description (continued)

The OPEB Trust Investment Committee is comprised of one member of the Board of Commissioners of the Division (who serves as Chairman), the President and CEO of the Division, the Sr. Vice President, CFO, CAO and Secretary-Treasurer of the Division, two Employee Members, one Retiree Member, and one Citizen Member.

The Plan provides postemployment coverage for health care, life insurance, accidental death and dismemberment (AD&D), medical, and prescription drugs to eligible retirees and their dependents. Benefits are payable to retirees and their spouses for their lifetime. Qualified dependents will continue to receive benefits as long as they are qualified under the Plan. Dental, dependent life insurance, cancer, accident, and long-term care benefits are available, but are 100% paid by the retiree. Employees retired under the MLGW Retirement and Pension Plan, or disabled with five years of service at any age, or disabled in the line of duty at any age with no years of service restriction, are eligible for OPEB benefits. Health care benefits are also offered to qualifying survivors of active employees who are eligible to retire at the time of death.

Members of the Plan consisted of the following at December 31, 2017:

	Medical	Life
Retired members currently receiving benefits	1,977	1,977
Vested terminated members entitled to, but not yet receiving benefits	-	-
Beneficiaries currently receiving benefits	1,719	-
Active members	2,639	2,639
Total	6,335	4,616

Funding Policy and Contributions

The contribution requirements of plan members and MLGW are established and may be amended by the MLGW Board of Commissioners. Contribution rates for retired plan members and beneficiaries currently receiving benefits are periodically reset and are currently at 25% of costs for medical and drug benefits. For life insurance and AD&D, retirees contribute 40% of the cost.

The Board of Commissioners has set the employer contribution rate based on the Actuarially Determined Contribution ("ADC"). The ADC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities of the plan over a period not to exceed thirty years. The ADC is based on the prior year's valuation, then adjusted forward at an assumed payroll growth rate. MLGW contributed $48,972 and $45,184 for the years ended December 31, 2018 and 2017, respectively to the OPEB Trust.

8. Other Postemployment Benefits (continued)

Actuarial Assumptions

The actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial experience study for the period January 1, 2009 to December 31, 2013.

Inflation	2.75%
Salary increases	Inflation plus merit increases based on age and service.
Discount Rate	7.50%
Healthcare costs trend rates	
Medical	7.00% grading to 4.50% over 10 years
Prescription drug	9.00% grading to 4.50% over 10 years
Administrative costs	3.00%
Mortality Rates	Based on RP - 2014 Mortality Tables for males and females, as appropriate, adjusted by a factor of 138%, and with mortality improvement using a modified RPEC 2014 scale.

Pre-retirement mortality rates are based on RP-2014 Employee Mortality Table with sex-distinct rates. Healthy annuitant mortality rates are based on the RP-2014 Healthy Annuitant Mortality Table with sex-distinct rates, adjusted by a factor of 138%. Disabled annuitant mortality rates are based on RP-2014 Disabled Retiree Mortality Table with sex-distinct rates, also adjusted by a factor of 138%. All mortality tables above are projected generationally with a modified RPEC2014 projection table using a 15-year convergence period for cohort effects and 10-year convergence period for age/period effects.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of calculations.

Investment Rates of Return

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which best estimate ranges of expected future rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates or return by the target asset allocation percentage and by adding expected inflation and subtracting expected

8. Other Postemployment Benefits (continued)

Investment Rates of Return (continued)

investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equity	39%	6.40%
International Equity	12%	8.00%
Fixed Income	29%	2.23%
Alternatives	8%	4.10%
Real Estate	10%	5.10%
Short Term Investments	2%	1.10%
Total	100%	

Discount Rate

The discount rate used to measure the total OPEB liability was 7.50% for both December 31, 2017 and December 31, 2016, respectively. The projection of cash flows used to determine the discount rate assumed that MLGW contributions would be made at rates equal to the actuarially determined contribution rates. Based on these assumptions, the OPEB Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members through December 31, 2017.

8. Other Postemployment Benefits (continued)

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Cost Trend

The following presents the Net OPEB Liability (NOL) of MLGW as of December 31, 2018, calculated using the discount rate of 7.50%, as well as what the Division's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate. Also, shown is the NOL as if it were calculated using healthcare cost trend rates that were 1-percentage point lower or 1-percentage point higher than the current healthcare trend rates:

	1% Decrease in Discount Rate (6.50%)	Current Discount Rate (7.50%)	1% Increase in Discount Rate (8.50%)
Net OPEB Liability (Asset)	$347,177	$253,362	$176,769
	1% Decrease in Trend Rate	**Current Trend Rate**	**1% Increase in Trend Rate**
Net OPEB Liability (Asset)	$177,936	$253,362	$346,804

OPEB Plan's Fiduciary Net Position

Detailed information about the MLGW OPEB Trust's fiduciary net position is available in the separately issued plan financial statements. For purposes of measuring the net OPEB liability, all information about the OPEB plan's assets, deferred outflows of resources, liabilities, deferred inflows of resources, and fiduciary net position have been determined on the same basis as they are reported by the MLGW OPEB Trust.

The MLGW OPEB Trust's financial statements are prepared using the accrual basis of accounting in accordance with generally accepted accounting principles promulgated by the Governmental Accounting Standards Board. Investments are stated at fair value. Benefit payments are recognized when due and payable in accordance with the terms of the plan.

8. Other Postemployment Benefits (continued)

Total OPEB Liability	
Service cost	$ 19,520
Interest	64,666
Change of benefit terms	(61,896)
Differences between expected and actual experience	3,674
Changes of assumptions	(200,370)
Benefit payments, including refunds of member contributions	(29,457)
Net change in Total OPEB Liability	$ (203,863)
Total OPEB Liability - beginning	876,951
(a) Total OPEB Liability - ending	$ 673,088
Plan Fiduciary Net Position	
Contributions - employer	$ 45,184
Net investment income	57,671
Benefit payments, including refunds of member contributions	(28,765)
Administrative expense	(692)
Other	-
Net change in Plan Fiduciary Net Position	$ 73,398
Plan Fiduciary Net Position - beginning	346,328
(b) Plan Fiduciary Net Position - ending	$ 419,726
(c) Net OPEB Liability - ending (a) - (b)	$ 253,362
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	62.36%
Covered employee payroll	$ 167,221
Plan Net OPEB Liability as percentage of covered employee payroll	151.51%

Note: Historical data: This schedule will be expanded to include up to ten years of historical data as the data becomes available.

8. Other Postemployment Benefits (continued)

Plan Changes Since Prior Valuation

Effective April 1, 2018:

- Deductible increased from $100/200 (singe/family) to $500/$1,000 for In-Network and from $400/$1,200 to $600/1,200 for Out-of-Network
- In-Network OOP maximum increased from $1,650/$14,700 to $2,200/$9,400
- Office visit copay increased from $15/$25 (PCP/Specialist) to $25/$35 and ER copay increased from $100 to $120
- Prescription drug benefits changes are shown in the table below:

	Pre April 1, 2018	Post April 1, 2018
Regular and Maintenance Medications:		
Retail		
Generic	$5.00	$10.00
Preferred Brand	30% with $25 maximum	30% with $30 maximum
Non-Preferred Brand	30% with $25 maximum	30% with $50 maximum
Mail Order		
Generic	$10.00	$20.00
Preferred Brand	$50.00	$60.00
Non-Preferred Brand	$60.00	$100.00
Specialty Medications:		
Retail		
Generic	$5.00	$10.00
Preferred Brand	$25.00	$30.00
Non-Preferred Brand	$40.00	$100.00
Mail Order		
Generic	$10.00	$20.00
Preferred Brand	$50.00	$100.00
Non-Preferred Brand	$60.00	$200.00

Assumption changes:

- Medical and Prescription Drug trends were updated
- Expected claims were updated

8. Other Postemployment Benefits (continued)

OPEB expense for the year ended December 31, 2018

Service cost	$	19,520
Interest on the Total OPEB Liability		64,666
Expensed portion of current-period benefit changes		(61,896)
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability		612
Expensed portion of current-period changes of assumptions or other inputs		(33,395)
Projected earnings on plan investments		(26,564)
Expensed portion of current-period differences between actual and projected earnings on plan investments		(6,221)
Total OPEB expense	$	(43,278)

Deferred outflows/inflows of resources related to OPEB

	Deferred Outflows of Resources	Deferred Inflows of Resources
Contributions subsequent to measurement date	$ 48,972	$ -
Changes of assumptions or other inputs	-	(166,975)
Difference between expected and actual experience in the Total OPEB Liability	3,061	-
Net difference between projected and actual earnings on investments	-	(24,885)
Total	$ 52,033	$ (191,860)

NOTE: $48,972 contribution made subsequent to the measurement date will be recognized as a reduction of net OPEB liability in 2019.

8. Other Postemployment Benefits (continued)

Projected Recognition of Deferred Outflows/(Inflows)

						Deferred Outflows/(Inflows) Recognized in Future Years				
	Year Established	Original Balance	Original Amortization Period (Years)	Amount Recognized During FYE December 31, 2018	Outstanding Balance at December 31, 2018	2019	2020	2021	2022	2023
Fiscal year										
Outflows										
Demographic	2018	$ 3,674	6	$ 613	$ 3,061	$ 612	$ 612	$ 612	$ 612	$ 613
Total Outflows				**613**	**$ 3,061**	**$ 612**	**$ 612**	**$ 612**	**$ 612**	**$ 613**
Fiscal year										
Inflows										
Investment	2018	$ (31,107)	5	$ (6,222)	$ (24,885)	$ (6,221)	$ (6,221)	$ (6,221)	$ (6,222)	
Assumption	2018	(200,370)	6	(33,395)	(166,975)	(33,395)	(33,395)	(33,395)	(33,395)	$ (33,395)
Total Inflows				**$ (39,617)**	**$ (191,860)**	**$ (39,616)**	**$ (39,616)**	**$ (39,616)**	**$ (39,617)**	**$ (33,395)**
Total				**$ (39,004)**	**$ (188,799)**	**$ (39,004)**	**$ (39,004)**	**$ (39,004)**	**$ (39,005)**	**$ (32,782)**

Note: In accordance with Paragraph 43 of GASB Statement No. 75, the difference between projected and actual earnings on OPEB plan investments should be recognized over a closed five-year period. The difference between expected and actual total OPEB liability experience (noted as "Demographic" in the chart above) and the assumption changes (noted as "Assumption" in the chart above) are each recognized over a closed period equal to the average of the expected remaining service lives of all employees who are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period. For 2018, the period is six years.

9. Pollution Remediation Obligation

MLGW has a contract with a state licensed environmental remediation company. The liabilities to remove asbestos, mold and lead from various substations and equipment because of imminent danger were derived from the environmental remediation contractor's estimate. These estimates assume no expected change orders.

MLGW annually evaluates current conditions, remediation plan updates and changes in legal or regulatory requirements to revise MLGW's estimated liability. Regulatory accounts are used to capture the net effect of the changes in estimates for each Division. See Note 1 (Regulatory Accounting).

The schedule below shows the balances as of December 31, 2018 and 2017 for the lead pollution liability from various substations and equipment by Division:

9. Pollution Remediation Obligation (continued)

		2018	2017
Electric			
	Lead	**$ 719**	$ 719
Total Electric		**719**	719
Gas			
	Lead	**276**	276
Total Gas		**276**	276
Water			
	Lead	**3,200**	3,200
Total Water		**3,200**	3,200
Total Liability		**$ 4,195**	$ 4,195

10. Risk Management

MLGW is exposed to various risks of loss related to active and retiree medical claims; injuries to workers; torts; theft of, damage to, and destruction of assets; errors and omissions; environmental damages; and natural disasters.

MLGW is self-insured for health and medical benefits and for injuries and damages including workers compensation and general liability claims. The Tennessee Governmental Tort Liability Act, TCA 29-20-101, et al, (the "Act") applies to all tort actions against MLGW arising in the State of Tennessee. The Act establishes statutory limits of liability and MLGW is immune from any award or judgment for death, bodily injury or property damage in excess of the limits as set forth in the Act.

Pursuant to the Act, the current limits of liability for personal injuries are $300 per person and $700 for two or more persons per accident. The liability for property damage is limited to $100 per accident.

MLGW purchases insurance to address the risks of loss associated with the following: property damage; employee travel; out-of-state automobile travel; employee dishonesty; forgery; computer fraud; counterfeiting; damage to leased or rented equipment; and worker injuries exceeding MLGW's retained risk of loss.

10. Risk Management (continued)

MLGW has established insurance reserves for the estimated liabilities, including an accrual for incurred but not reported claims, resulting from medical benefits and injuries and damages claims as established by a third party administrator and MLGW's Legal Department. The medical benefits reserve and the costs and charges to the reserve are allocated to each division based on a standard administrative and general cost allocation.

MLGW is party to various lawsuits filed against it in the normal course of business (see Note 15).

The changes in the self-insurance reserves for medical benefits and injuries and damages for the years ended December 31, 2018 and 2017 are as follows:

	Medical Benefits			Injuries and Damages		
	Electric Division	Gas Division	Water Division	Electric Division	Gas Division	Water Division
Balance -- December 31, 2016	$ 7,238	$ 3,228	$ 2,144	$ 5,385	$ 3,026	$ 2,121
Payments	(43,095)	(19,444)	(12,810)	(2,310)	(977)	(876)
Incurred claims expense	42,880	19,420	12,761	2,866	640	392
Balance -- December 31, 2017	$ 7,023	$ 3,204	$ 2,095	$ 5,941	$ 2,689	$ 1,637
Payments	**(42,591)**	**(19,427)**	**(12,703)**	**(1,953)**	**(829)**	**(953)**
Incurred claims expense	**46,406**	**21,166**	**13,840**	**1,937**	**461**	**1,470**
Balance -- December 31, 2018	**$ 10,838**	**$ 4,943**	**$ 3,232**	**$ 5,925**	**$ 2,321**	**$ 2,154**

11. Bonds

Bonds as of December 31, 2018 and 2017 consist of the following:

	Interest Rates	2018	2017
Electric Division:			
Electric System Revenue Bonds:			
Series 2008, due serially 2017-2018	4.00 - 5.00%	$ -	$ 65,305
Series 2010, due serially 2017-2018	3.00 - 5.00%	-	55,070
Series 2014, due serially 2017-2034	2.00 - 5.00%	**60,965**	63,585
Series 2016, due serially 2017-2036	3.00 - 5.00%	**37,410**	38,725
Series 2017, due serially 2018-2037	3.00 - 5.00%	**87,145**	90,000
Premium on revenue bonds		**23,709**	27,659
Total		**209,229**	340,344
Less: current portion of bonds payable		**(7,040)**	(127,165)
		$ 202,189	$ 213,179
Gas Division:			
Gas System Revenue Bonds:			
Series 2016, due serially 2017-2036	3.00 - 5.00%	**$ 37,410**	$ 38,725
Series 2017, due serially 2018-2037	3.00 - 5.00%	**38,750**	40,000
Premium on revenue bonds		**12,611**	13,828
Total		**88,771**	92,553
Less: current portion of bonds payable		**(2,660)**	(2,565)
		$ 86,111	$ 89,988
Water Division:			
Water System Revenue Bonds:			
Series 2014, due serially 2016-2034	2.00 - 5.00%	**$ 12,695**	$ 13,290
Series 2016, due serially 2017-2036	2.00 - 4.00%	**27,725**	28,880
Series 2017, due serially 2018-2037	2.00 - 5.00%	**24,120**	25,000
Premium on revenue bonds		**5,180**	5,679
Total		**69,720**	72,849
Less: current portion of bonds payable		**(2,680)**	(2,630)
		$ 67,040	$ 70,219

11. Bonds (continued)

Principal payments on bonds are due annually on December 1. Debt service requirements as of December 31, 2018 are as follows:

	Electric Division	
	Principal	Interest
2019	$ 7,040	$ 8,186
2020 - 2024	39,965	36,159
2025 - 2029	50,655	25,464
2030 - 2034	63,450	12,666
2035 - 2037	24,410	1,669
Total	$ 185,520	$ 84,144

	Gas Division	
	Principal	Interest
2019	$ 2,660	$ 3,470
2020 - 2024	15,220	15,427
2025 - 2029	19,400	11,240
2030 - 2034	24,585	6,058
2035 - 2037	14,295	1,040
Total	$ 76,160	$ 37,235

11. Bonds (continued)

	Water Division	
	Principal	Interest
2019	$ 2,680	$ 2,247
2020 - 2024	14,580	10,061
2025 - 2029	17,330	7,311
2030 - 2034	20,935	3,707
2035 - 2037	9,015	503
Total	$ 64,540	$ 23,829

MLGW, at its option, may redeem bonds prior to maturity at premiums and prices specified in the indentures. The Series 2008 and Series 2010 bonds are subject to mandatory redemption upon early termination of the Supplement to the Power Contract ("Supplement") with TVA as discussed in Note 12. The Series 2008 and Series 2010 bonds matured November 2018.

Bonds are secured by the pledge of the respective division's revenues, by funds established by the bond resolutions and, in certain circumstances, proceeds from the sale of certain division assets.

The estimated fair value of long-term debt for the Electric, Gas, and Water Divisions based on quoted market prices (including accrued interest) are as follows as of December 31, 2018 and 2017:

	2018	2017
Electric Division	**$204,354**	$341,948
	2018	2017
Gas Division	**$ 84,929**	$ 90,623
	2018	2017
Water Division	**$ 67,577**	$ 72,179

During 2017, the Electric Division issued $90,000 of Series 2017 revenue bonds to finance the costs of acquiring, expanding and/or improving the Electric Division and to pay certain costs of issuance with respect to the Series 2017 Electric Division Bonds. The first principal payment was made December 1, 2018, and thereafter will be made annually with a final maturity date of December 1, 2037. The Series 2017 revenue bonds bear interest at annual fixed rates ranging from 3.00% to 5.00%.

11. Bonds (continued)

During 2017, the Gas Division issued $40,000 of Series 2017 revenue bonds to finance the costs of acquiring, expanding and/or improving the Gas Division and to pay certain costs of issuance with respect to the Series 2017 Gas Division Bonds. The first principal payment was made December 1, 2018, and thereafter will be made annually with a final maturity date of December 1, 2037. The Series 2017 revenue bonds bear interest at annual fixed rates ranging from 3.00% to 5.00%.

During 2017, the Water Division issued $25,000 of Series 2017 revenue bonds to finance the costs of acquiring, expanding and/or improving the Water Division and to pay certain costs of issuance with respect to the Series 2017 Water Division Bonds. The first principal payment was made December 1, 2018, and thereafter will be made annually with a final maturity date of December 1, 2037. The Series 2017 revenue bonds bear interest at annual fixed rates ranging from 2.00% to 5.00%.

During 2016, the Electric Division issued $40,000 of Series 2016 revenue bonds to finance the costs of acquiring, expanding and/or improving the Electric Division and to pay certain costs of issuance with respect to the Series 2016 Electric Division Bonds. The first principal payment was made December 1, 2017, and thereafter will be made annually with a final maturity date of December 1, 2036. The Series 2016 revenue bonds bear interest at annual fixed rates ranging from 3.00% to 5.00%. In addition, the Electric Division redeemed early the remaining principal balance of the Series 2003A bonds totaling $4,170.

During 2016, the Gas Division issued $40,000 of Series 2016 revenue bonds to finance the costs of acquiring, expanding and/or improving the Gas Division and to pay certain costs of issuance with respect to the Series 2016 Gas Division Bonds. The first principal payment was made December 1, 2017, and thereafter will be made annually with a final maturity date of December 1, 2036. The Series 2016 revenue bonds bear interest at annual fixed rates ranging from 3.00% to 5.00%.

During 2016, the Water Division issued $30,000 of Series 2016 revenue bonds to finance the costs of acquiring, expanding and/or improving the Water Division and to pay certain costs of issuance with respect to the Series 2016 Water Division Bonds. The first principal payment was made December 1, 2017, and thereafter will be made annually with a final maturity date of December 1, 2036. The Series 2016 revenue bonds bear interest at annual fixed rates ranging from 2.00% to 4.00%.

During 2014, the Electric Division issued $71,000 of Series 2014 revenue bonds to finance the costs of acquiring, expanding and/or improving the Electric Division and to pay certain costs of issuance with respect to the Series 2014 Electric Division Bonds. The first principal payment was made December 1, 2015, and thereafter will be made annually with a final maturity date of December 1, 2034. The Series 2014 revenue bonds bear interest at annual fixed rates ranging from 2.00% to 5.00%.

During 2014, the Water Division issued $15,000 of Series 2014 revenue bonds to finance the costs of acquiring, expanding and/or improving the Water Division and to pay certain costs of issuance with respect to the Series 2014 Water Division Bonds. The first principal payment was made December 1, 2015, and thereafter will be made annually with a final maturity date of December 1, 2034. The Series 2014 revenue bonds bear interest at annual fixed rates ranging from 2.00% to 5.00%.

11. Bonds (continued)

During 2010, the Electric Division issued $460,050 of Series 2010 bonds to advance refund a portion of the outstanding Electric System Subordinate Revenue Bonds, Series 2003A, and to pay certain costs of issuance of the Series 2010 Bonds. The refunding was undertaken to reduce total future debt service payments. The 2010 Series Bonds have a net present value benefit of $16,541, with a cash savings of $18,809 over the life of the bonds. The first principal payment was made December 1, 2014, and thereafter will be made annually with a final maturity date of December 1, 2018. The Series 2010 Bonds bear interest at annual fixed rates ranging from 2.50% to 5.00%. The Series 2010 Bonds are not subject to optional redemption, but will be subject to extraordinary redemption prior to maturity.

During 2008, the Electric Division issued $96,930 in revenue bonds to refund $100,000 of Series 2003B revenue bonds. The refunding was undertaken to convert the 2003B auction rate securities into fixed rate securities of the same maturity. The Series 2008 revenue bonds bear interest at annual fixed rates ranging from 4.00% to 5.00%.

During 2003, the Electric Division issued $1,292,170 of Series 2003A and $100,000 of Series 2003B revenue bonds to prepay future power purchases from TVA under the Supplement. See Note 12. The Series 2003B revenue bonds were auction rate securities that bore interest for 35-day auction periods. The Series 2003B revenue bonds were refunded in 2008, as discussed above.

MLGW's Electric Division bond covenants require that for Series 2008 and 2010 Bonds the ratio of net revenues to principal and interest for any fiscal year will equal at least 100%. The Series 2014, 2016, and 2017 Bonds require that the ratio of net revenues to principal and interest for any fiscal year will equal at least 120%. The composite electric bonds debt service coverage as of December 31, 2018 was 1.64.

MLGW's Gas Division bond covenants require that for Series 2016 and 2017 Bonds the ratio of net revenues to principal and interest for any fiscal year will equal at least 120%. The composite gas bonds debt service coverage as of December 31, 2018 was 8.07.

MLGW's Water Division bond covenants require that for Series 2014, 2016 and 2017 Bonds the ratio of net revenues to principal and interest for any fiscal year will equal at least 120%. The composite water bonds debt service coverage as of December 31, 2018 was 4.38.

11. Bonds (continued)

Long-term debt activity for the years ended December 31, 2018 and 2017 was as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
Year ended December 31, 2018:				
Electric Division				
Bonds payable:				
Revenue bonds	$ 312,685	$ -	$ (127,165)	$ 185,520
Premium on revenue bonds	27,659	-	(3,950)	23,709
Total bonds payable	$ 340,344	$ -	$ (131,115)	$ 209,229
Gas Division				
Bonds payable:				
Revenue bonds	$ 78,725	$ -	$ (2,565)	$ 76,160
Premium on revenue bonds	13,828	-	(1,217)	12,611
Total bonds payable	$ 92,553	$ -	$ (3,782)	$ 88,771
Water Division				
Bonds payable:				
Revenue bonds	$ 67,170	$ -	$ (2,630)	$ 64,540
Premium on revenue bonds	5,679	-	(499)	5,180
Total bonds payable	$ 72,849	$ -	$ (3,129)	$ 69,720

11. Bonds (continued)

	Beginning Balance	Increases	Decreases	Ending Balance
Year ended December 31, 2017:				
Electric Division				
Bonds payable:				
Revenue bonds	$ 341,455	$ 90,000	$ (118,770)	$ 312,685
Premium on revenue bonds	21,016	11,700	(5,057)	27,659
Total bonds payable	$ 362,471	$ 101,700	$ (123,827)	$ 340,344
Gas Division				
Bonds payable:				
Revenue bonds	$ 40,000	$ 40,000	$ (1,275)	$ 78,725
Premium on revenue bonds	7,866	6,775	(813)	13,828
Total bonds payable	$ 47,866	$ 46,775	$ (2,088)	$ 92,553
Water Division				
Bonds payable:				
Revenue bonds	$ 43,870	$ 25,000	$ (1,700)	$ 67,170
Premium on revenue bonds	3,331	2,693	(345)	5,679
Total bonds payable	$ 47,201	$ 27,693	$ (2,045)	$ 72,849

12. Rates and Energy Supplies

Rates

Electric, gas and water rates are established by MLGW and rate changes are subject to approval by the City Council. The City Council has approved mechanisms for pass-through of wholesale electric rate changes from TVA and natural gas price changes from suppliers without requiring additional specific approval.

TVA implemented a rate adjustment effective with the October 2018 revenue month, increasing the cost of wholesale power (excluding fuel and purchased power) purchased by MLGW by approximately 2.57%. MLGW implemented changes to retail rate schedules effective with meters read on or after October 2, 2018, to recover the increased cost of wholesale power from its retail customers. The retail effect across all customer classes was approximately 1.50%.

A MLGW electric rate increase was approved on February 6, 2018, by the City Council as part of the 2018 MLGW Budget. This increase was required due to increased operating and capital expenses. MLGW implemented new electric rate schedules for meters read on or after July 2, 2018. The retail impact was a 2.0% increase for all customer classes.

12. Rates and Energy Supplies (continued)

Rates (continued)

TVA implemented a rate adjustment effective with the October 2017 revenue month, increasing the cost of wholesale power (excluding fuel and purchased power) purchased by MLGW by approximately 2.44%. MLGW implemented changes to retail rate schedules effective with meters read on or after September 29, 2017, to recover the increased cost of wholesale power from its retail customers. The retail effect across all customer classes was approximately 1.50%.

An electric rate restructure was effective with meters read on or after January 3, 2017, and was applicable to Residential Schedules RS, RS-TOU and Small General Service Schedule GSA Part 1, MSA and TGSA. This rate restructure was approved on November 1, 2016 by the City Council as part of the 2017 MLGW Budget. The retail effect was revenue neutral across these customer classes.

MLGW retail electric rates are adjusted for TVA's Fuel Cost Adjustor ("FCA"). The FCA is a variable wholesale energy rate that can fluctuate each month with TVA's cost of fuel for electricity generation and purchased power costs. The FCA affects energy (per kilowatt-hour) charges for all retail customers.

MLGW retail electric rates are also adjusted by a Power Cost Adjustment ("PCA"). The PCA is a component added to the monthly FCA and recovers the shortfall in power cost due to changes in load factor. The PCA is a quarterly fixed rate adjustment applied to energy charges for retail customers with demands less than 5,000 kilowatts. The PCA was approved on November 19, 2013 by the City Council as part of the 2014 MLGW Budget. MLGW implemented the PCA for meters read on or after January 2, 2014.

MLGW gas rate schedules are developed using a projected price of natural gas and related gas storage and transportation charges. Retail natural gas rates are adjusted monthly for the Purchased Gas Adjustment ("PGA") rider. A PGA is applied to customer bills to reflect the difference between the actual cost of gas, storage and transportation in a given month and the projected levels built into the base rate schedule.

A gas rate increase was approved on February 6, 2018 by the City Council as part of the 2018 MLGW Budget. This increase was required due to increased operating expenses. MLGW implemented new gas rate schedules for meters read on or after July 2, 2018. The retail impact was a 2.0% increase for all customer classes.

A water rate increase was approved on January 9, 2018 by the City Council as part of the 2018 MLGW Budget. This rate increase was required to fund aquifer research. MLGW implemented new water rate schedules for meters read on or after January 31, 2018. The retail impact was a 1.05% increase for all customer classes.

12. Rates and Energy Supplies (continued)

Energy Supplies

TVA currently supplies all of MLGW's electric power requirements pursuant to a power contract. On November 19, 2003, MLGW entered into a Supplement to the Power Contract with TVA under which MLGW made a prepayment of $1,500,000 to TVA for capacity and related energy. In exchange for the prepayment and a commitment by MLGW to purchase a minimum amount of electric power from TVA over the term of the Supplement (15 years), TVA will supply a specified amount of electricity and provide a fixed credit to its wholesale power rates otherwise in effect. To finance the prepayment, MLGW issued the Series 2003A and Series 2003B Bonds. Subsequently, MLGW has refinanced portions of the bonds originally issued for the prepayment. In 2008, the Series 2003B bonds were refunded by the Series 2008 bonds. In 2010, the callable portion of the 2003A Series bonds was refunded by the Series 2010 bonds. In 2016, the remaining principal balance of the Series 2003A bonds was redeemed early. See also Note 1 (Prepaid Power Cost) and Note 11 (Bonds). The prepay contract ended in November 2018.

Under the terms of the TVA power contract, MLGW may terminate its supply arrangement with TVA upon five years' prior written notice. TVA may terminate on not less than ten years' prior written notice.

MLGW purchases natural gas from multiple suppliers on multiple pipelines in order to minimize operational and performance risk. MLGW has short-term purchase commitments which are normally for one year or less.

MLGW and the Tennessee Energy Acquisition Corporation ("TEAC") entered into a 20 year gas purchase contract beginning January 1, 2007 with volume commitments for the term. TEAC payments are made monthly after the gas is received by MLGW for its customers, and therefore these deals present no increased cash flow risk compared to normal physical gas purchases.

MLGW signed a North American Energy Standards Board (NAESB) contract with the Municipal Gas Authority of Georgia (MGAG) on July 24, 2018 in order to participate in a prepay natural gas opportunity. Gas volumes are offered to MLGW at Texas Gas Zone 1 Index minus $0.4235. Natural gas began flowing to MLGW effective October 1, 2018 at a volume of 3,000 MMBTU/day. The gas volume will increase to 6,000 MMBTU/day effective January 1, 2024. This contract will expire September 1, 2048.

13. Federal Grant Contributions

In June 2017, MLGW applied for a disaster assistance grant for the restoration work done after the May 2017 storm. In June 2017, FEMA awarded grant contract Edison #E 34101-0000023718 for the project under the Public Assistance Grant Award program for costs incurred during FEMA-4320-DR-TN. The award was $12,744, of which $12,728 is being federally funded to the Electric Division and $16 to the Gas Division. Total eligible cost of restoration work for this disaster as submitted to FEMA field officer in January 2018 was $16,992. Eligible cost submitted for the Electric Division was $16,970 and $22 for the Gas Division. In 2018, MLGW decreased the Electric receivable by $20 representing project under

13. Federal Grant Contributions (continued)

runs that are currently being processed and pending de-obligation by FEMA. In October 2018, MLGW received $11,485 for the Electric Division and $16 for the Gas Division.

Electric	**2018**	2017
Total Expenditures	**$ -**	$ 16,970
Eligible Reimbursement	**(20)**	(12,728)
Reimbursement Received	**11,485**	-
Receivable Balance	**$ (1,223)**	$ (12,728)

Gas	**2018**	2017
Total Expenditures	**$ -**	$ 22
Eligible Reimbursement	**16**	(16)
Reimbursement Received	**(16)**	-
Receivable Balance	**$ -**	$ (16)

14. Transfers to City

The Electric, Gas and Water Divisions make transfers to the City.

The Electric Division transfer is based on the formula provided by the May 29, 1987, TVA Power Contract Amendment (Supp. No. 8). The formula includes a property tax equivalency calculation plus 4% of operating revenue less power costs (three-year average). The Division pays the amount requested by the City not exceeding this formula.

The Gas Division transfer is based on the formula provided by the Municipal Gas System Tax Equivalent Law of 1987. The formula includes a property tax equivalency calculation plus 4% of operating revenue less gas costs (three-year average). The Division pays the amount requested by the City not exceeding this formula.

The Water Division through an agreement with the City, transfers a payment in the amount of $2,500 per year. This agreement is effective through the year 2028. Additionally, in July 2014, the city directed MLGW to pay $1,900 to the City's general fund for each of MLGW's fiscal years 2015, 2016 and 2017 on or about April 30th of said years.

15. Commitments and Contingencies

The Electric and Gas Divisions have derivative contracts and agreements that are exchange traded exclusively on public exchanges thereby eliminating counterparty credit risk. The counterparty to any derivative transaction on an exchange is either the Chicago Mercantile Exchange ("CME"), which is the parent of the NYMEX, or the Intercontinental Exchange ("ICE"). The exposure to credit loss in the event of nonperformance by the other party is represented by the fair values of the open derivative contracts. However, there is no counterparty financial risk for contracts transacted through the NYMEX or the ICE.

MLGW pays a Transfer to the City and in lieu of taxes to Shelby County Government and the incorporated towns of Shelby County for the Electric and Gas Divisions based on the Tennessee Municipal Electric and Gas System Tax Equivalent Laws of 1987. MLGW pays a Transfer to the City for the Water Division based upon an agreement with the City, which calls for a payment of $2,500 for each of the fiscal years through 2028.

MLGW is party to various legal proceedings incidental to its business. In the opinion of management, MLGW's liability, if any, in all pending litigation or other proceedings, taken as a whole after consideration of amounts accrued, insurance coverage, or other indemnification arrangements, will not have a material adverse effect on its financial position or results of operations.

See Note 12 for discussions of MLGW's power contract with TVA and gas purchase commitments.

REQUIRED SCHEDULE OF CHANGES IN NET PENSION LIABILITY (ASSET)
DECEMBER 31, 2018
(Dollars in Thousands)

	2017	2016	2015	2014	2013
Total pension liability					
Service cost	$ 31,977	$ 32,591	$ 30,139	$ 31,786	$ 33,122
Interest	103,731	102,248	99,940	100,436	98,818
Change of benefit terms			-	-	-
Differences between expected and actual experience	4,908	(11,298)	2,275	(16,338)	(14,280)
Changes in assumptions			-	(22,112)	-
Benefit payments, including refunds of employee contributions	(104,919)	(102,628)	(100,528)	(100,249)	(91,931)
Net change in total pension liability	35,697	20,913	31,825	(6,477)	25,730
Total pension liability – beginning	$ 1,435,533	$ 1,414,620	$ 1,382,794	$ 1,389,271	$ 1,363,542
Total pension liability – ending (a)	$ 1,471,230	$ 1,435,533	$ 1,414,620	$ 1,382,794	$ 1,389,271
Plan fiduciary net position					
Contributions – employer	$ 22,390	$ 21,390	$ 21,390	$ 26,804	$ 30,706
Contributions – employee	12,959	12,513	12,310	11,729	12,000
Net investment income	216,498	108,008	15,231	98,931	185,707
Benefit payments including refunds of employee contributions	(104,919)	(102,628)	(100,528)	(100,249)	(91,931)
Administrative expense	(860)	(730)	(759)	(714)	(657)
Other	-	-	-	-	-
Net change in plan fiduciary net position	$ 146,068	$ 38,553	$ (52,356)	$ 36,501	$ 135,825
Other Adjustments	-	-	788	-	-
Plan fiduciary net position – beginning	$ 1,366,169	$ 1,327,616	$ 1,379,184	$ 1,342,683	$ 1,206,858
Plan fiduciary net position – ending (b)	$ 1,512,237	$ 1,366,169	$ 1,327,616	$ 1,379,184	$ 1,342,683
System's net pension liability (asset) – ending (a) – (b)	$ (41,007)	$ 69,364	$ 87,004	$ 3,610	$ 46,588
Plan fiduciary net position as a percentage of the total pension liability (asset)	102.79%	95.17%	93.85%	99.74%	96.65%
Covered employee payroll	$ 167,221	$ 161,926	$ 160,641	$ 152,368	$ 154,759
System's net pension liability (asset) as a percentage of covered employee payroll	-24.52%	42.84%	54.16%	2.37%	30.10%

Notes to schedule:

Benefit changes: There have been no changes in benefit provisions since GASB 68 implementation.

Change of assumptions: The assumptions were updated between December 31, 2013 and December 31, 2014 based on a five-year experience study for the period ending December 31, 2013.

Historical data: This schedule will be expanded in future years to include up to ten years of historical data as the required information becomes available.

REQUIRED SCHEDULE OF EMPLOYER CONTRIBUTIONS - PENSION
DECEMBER 31, 2018
(Dollars in Thousands)

Year Ended December 31	Actuarially Determined Contribution (ADC)	Actual Contribution in Relation to ADC	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered-Employee Payroll
2009	$ 22,401	$ 21,388	$ 1,013	$ 154,057	13.88%
2010	27,381	27,385	(4)	153,509	17.84%
2011	26,208	26,213	(5)	154,036	17.02%
2012	30,067	30,063	4	154,347	19.48%
2013	30,705	30,706	(1)	154,759	19.84%
2014	26,812	26,804	8	152,368	17.59%
2015	21,390	21,390	-	160,641	13.32%
2016	21,390	21,390	-	161,926	13.21%
2017	22,390	22,390	-	167,221	13.39%
2018	22,174	22,174	-	166,379	13.33%

Valuation date	January 1, 2018
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll, using 2.50% annual increases
Remaining amortization period	25 years remaining as of January 1, 2016
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value , and is recognized over a five-year period, further adjusted, if necessary, to be within 30% of the market value.

Actuarial Assumptions:	
Inflation	2.75%
Salary increases	Inflation plus merit increases that vary by age and service, ranging from 0.00% to 6.75%
Investment rate of return	7.50%, including inflation, net of investment expenses
Cost-of-living adjustments	0.83% for ages 56-58 1.65% for ages 59-61 2.06% for ages 62 and older, and all disabled participants

Other Information:

The actuarially determined contribution (ADC) is calculated using a January 1 valuation date as of the beginning of the fiscal year prior to the year in which contributions are reported. Therefore, the ADC for the year ended December 31, 2018 is based on the January 1, 2017 actuarial valuation.

Please see the January 1, 2018 actuarial valuation report for a full listing of assumptions.

REQUIRED SCHEDULE OF CHANGES IN NET OPEB LIABILITY
DECEMBER 31, 2018
(Dollars in Thousands)

Total OPEB Liability	
Service cost	$ 19,520
Interest	64,666
Change of benefit terms	(61,896)
Differences between expected and actual experience	3,674
Changes of assumptions	(200,370)
Benefit payments, including refunds of member contributions	(29,457)
Net change in Total OPEB Liability	$ (203,863)
Total OPEB Liability - beginning	876,951
(a) Total OPEB Liability - ending	$ 673,088
Plan Fiduciary Net Position	
Contributions - employer	$ 45,184
Net investment income	57,671
Benefit payments, including refunds of member contributions	(28,765)
Administrative expense	(692)
Other	-
Net change in Plan Fiduciary Net Position	$ 73,398
Plan Fiduciary Net Position - beginning	346,328
(b) Plan Fiduciary Net Position - ending	$ 419,726
(c) Net OPEB Liability - ending (a) - (b)	$ 253,362
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	62.36%
Covered employee payroll	$ 167,221
Plan Net OPEB Liability as percentage of covered employee payroll	151.51%

Note: Historical data: This schedule will be expanded to include up to ten years of historical data as the data becomes available.

REQUIRED SCHEDULE OF EMPLOYER CONTRIBUTIONS - OPEB
DECEMBER 31, 2018
(Dollars in Thousands)

Year Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions*	Contribution Deficiency / (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2009	$ 55,341	$ 55,688	$ (347)	$ 153,117	36.37%
2010	43,693	43,476	217	153,509	28.32%
2011	44,666	43,554	1,112	154,036	28.28%
2012	42,427	39,747	2,680	154,347	25.75%
2013	42,854	43,043	(189)	154,759	27.81%
2014	38,386	42,100	(3,713)	152,368	27.63%
2015	38,187	38,438	(251)	160,641	23.93%
2016	45,289	42,496	2,793	161,926	26.24%
2017	46,978	45,184	1,794	167,221	27.02%
2018	48,270	48,972	(702)	169,605	28.87%

*Starting with 2016, contributions are shown on an accrual basis.

Valuation date	Actuarially determined contribution rates are calculated as of January 1, one year prior to the end of the fiscal year in which contributions are reported
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	30-year closed, level salary
Remaining amortization period	28 years remaining as of January 1, 2017
Asset valuation method	The market value of assets less unrecognized returns in each of the last four years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.

SCHEDULE OF BONDS,
PRINCIPAL AND INTEREST REQUIREMENTS
DECEMBER 31, 2018
(Dollars in Thousands)

	Series 2014		Series 2016		Series 2017	
	Principal	Interest	Principal	Interest	Principal	Interest
Electric Division:						
2019	$ 2,725	$ 2,786	$ 1,370	$ 1,683	$ 2,945	$ 3,717
2020	2,810	2,704	1,425	1,628	3,060	3,599
2021	2,920	2,592	1,480	1,571	3,215	3,446
2022	3,040	2,475	1,555	1,497	3,375	3,285
2023	3,160	2,354	1,630	1,419	3,545	3,117
2024	3,315	2,196	1,715	1,338	3,720	2,938
2025	3,485	2,030	1,800	1,252	3,905	2,753
2026	3,655	1,856	1,890	1,162	4,100	2,558
2027	3,840	1,673	1,985	1,067	4,305	2,353
2028	3,995	1,519	2,085	968	4,520	2,138
2029	4,155	1,359	2,185	864	4,750	1,912
2030	4,320	1,193	2,295	755	4,985	1,674
2031	4,535	977	2,410	640	5,235	1,425
2032	4,760	751	2,510	543	5,420	1,242
2033	5,000	513	2,610	443	5,605	1,052
2034	5,250	261	2,710	339	5,805	858
2035	-	-	2,820	230	6,005	653
2036	-	-	2,935	117	6,215	443
2037	-	-	-	-	6,435	226
Total	$ 60,965	$ 27,239	$ 37,410	$ 17,516	$ 87,145	$ 39,389

SCHEDULE OF BONDS,
PRINCIPAL AND INTEREST REQUIREMENTS
DECEMBER 31, 2018
(Dollars in Thousands)
(Continued)

	Series 2016		Series 2017	
	Principal	Interest	Principal	Interest
Gas Division:				
2019	$ 1,370	$ 1,682	$ 1,290	$ 1,788
2020	1,425	1,628	1,340	1,736
2021	1,480	1,571	1,410	1,669
2022	1,555	1,497	1,480	1,598
2023	1,630	1,419	1,555	1,525
2024	1,715	1,338	1,630	1,446
2025	1,800	1,252	1,710	1,365
2026	1,890	1,162	1,800	1,280
2027	1,985	1,067	1,885	1,190
2028	2,085	968	1,980	1,096
2029	2,185	864	2,080	996
2030	2,295	755	2,185	892
2031	2,410	640	2,295	783
2032	2,510	543	2,410	669
2033	2,610	443	2,530	548
2034	2,710	339	2,630	446
2035	2,820	230	2,735	342
2036	2,935	117	2,845	233
2037	-	-	2,960	118
Total	$ 37,410	$ 17,515	$ 38,750	$ 19,720

	Series 2014		Series 2016		Series 2017	
	Principal	Interest	Principal	Interest	Principal	Interest
Water Division:						
2019	$ 605	$ 469	$ 1,180	$ 867	$ 895	$ 911
2020	620	457	1,215	832	915	893
2021	635	438	1,250	795	940	866
2022	655	419	1,275	770	970	838
2023	680	393	1,315	732	1,000	808
2024	715	359	1,355	693	1,040	768
2025	740	338	1,395	652	1,080	726
2026	765	308	1,435	610	1,135	673
2027	790	285	1,465	581	1,190	616
2028	820	253	1,525	523	1,250	557
2029	855	221	1,585	462	1,300	506
2030	890	186	1,645	398	1,355	455
2031	925	151	1,715	333	1,405	400
2032	960	114	1,765	281	1,455	351
2033	1,000	75	1,820	228	1,515	294
2034	1,040	35	1,870	174	1,575	232
2035	-	-	1,930	117	1,640	169
2036	-	-	1,985	60	1,705	103
2037	-	-	-	-	1,755	54
Total	$ 12,695	$ 4,501	$ 27,725	$ 9,108	$ 24,120	$ 10,220

Electric Division Rate Class	Base Charge	Customers

All Electric Rate Schedules Are Subject To Adjustment Under The Provisions of the TVA Fuel Cost and Purchased Power Adjustment Rider.

Residential – Schedule RS	Effective meters read on or after October 1, 2018.	368,296

Customer Charge: $13.49 per month, less Hydro Allocation Credit: $1.60

Energy Charge:	Summer	Winter	Transition
First 500 kWh per month:	$0.07307	$0.06984	$0.06794
Additional kWh per month:	$0.07212	$0.06890	$0.06700

The above rates are subject to adjustment under the provisions of the TVA Fuel Cost and Purchase Power Adjustment Rider.

Time-Of-Use Residential Rate	Effective October 1, 2018.	76

Customer Charge: $13.49 per month, less Hydro Allocation Credit: $1.60

Energy Charge:	Summer	Winter	Transition
On-Peak kWh per month:	$0.12916	$0.08744	$0.05827
Off-Peak kWh per month:	$0.05827	$0.05827	$0.05827

The above rates are subject to adjustment under the provisions of the TVA Fuel Cost and Purchase Power Adjustment Rider.

General Service – Schedule GSA	Effective meters read on or after October 1, 2018.	43,432

If (a) the higher of (i) the customer's currently effective contract demand, if any, or (ii) its highest billing demand during the latest 12 month period is not more than 50 kW, and (b) customer's monthly energy takings for any month during such period do not exceed 15,000 kWh:

Customer Charge: $25.63 per delivery point per month

Energy Charge:	Summer	Winter	Transition
	$0.08125	$0.07806	$0.07613

If (a) the higher of (i) the customer's currently effective contract demand or (ii) its highest billing demand during the latest 12 month period is greater than 50 kW but not more than 1,000 kW, or (b) if the customer's billing demand is less than 50 kW and its energy takings for any month during such period exceed 15,000 kWh:

Customer Charge: $76.89 per delivery point per month

Demand Charge:	Summer	Winter	Transition
First 50 kW of billing demand per month:	$0.00000	$0.00000	$0.00000
Excess over 50 kW of billing demand per month:	$14.36	$13.36	$13.36
Energy Charge:			
First 15,000 kWh per month:	$0.09400	$0.09083	$0.08890
Additional kWh per month:	$0.04199	$0.03901	$0.03788

Electric Division Rate Class (cont.)	**Base Charge**			**Customers**
General Service – Schedule GSA (cont.)	If the higher of the customer's currently effective contract demand or its highest billing demand during the latest 12 month period is greater than 1,000 kW:			
Customer Charge:	$307.57 per delivery point per month			
Demand Charge:	Summer	Winter	Transition	
First 1,000 kW of billing demand per month:	$13.34	$12.35	$12.35	
Excess over 1,000 kW of billing demand per month:	$13.18	$12.18	$12.18	
Excess of billing demand over the higher of 2,500 kW or the customer's contract demand per month:	$13.18	$12.18	$12.18	
Energy Charge:				
All kWh per month:	$0.04717	$0.04418	$0.04306	

Time-of-Day General Power Rate - Part A (Schedule TGSA)	Effective October 1, 2018.			1
		Summer	Non-Summer	
Customer Charge:		$307.57	$307.57	
On-peak per kW of billing demand charges per month:		$13.68	$13.01	
Per kW charge per month for each kW, if any, by which off-peak billing demand exceeds on-peak billing demand:		$1.70	$1.70	
Per kW charge per month for each kW, if any, of the amount by which (1) the customer's on-peak billing demand exceeds the higher of 2,500 kW or its on-peak contract demand or (2) the customer's off-peak billing demand exceeds the higher of 2,500 kW or its off-peak contract demand, whichever is higher		$13.68	$13.01	
On-peak per kWh energy charge:		$0.05761	$0.05032	
Off-peak per kWh energy charge:		$0.04137	$0.04253	

Manufacturing Power Rate - Part A (Schedule MSA)	Effective October 1, 2018.			0
Customer Charge:	$307.57 per delivery point per month			
	Summer	Winter	Transition	
Per kW coincident billing demand charge per month:	$8.51	$7.53	$7.53	
Per kW maximum billing demand charge per month:	$4.93	$4.91	$4.91	

Electric Division Rate Class (cont.)	Base Charge	Customers

Manufacturing Power Rate - Part A
(Schedule MSA) (cont.)

	Summer	Winter	Transition
Excess per kW charge per month by which billing demand exceeds contract demand:	$13.44	$12.44	$12.44
On-peak per kWh energy charge:	$0.06422	$0.05349	$0.04381
Off-peak per kWh energy charge:	$0.04156	$0.04319	$0.04381

	Base Charge	Customers
Time Of Use General Service (Schedule TGS)	Effective October 1, 2018.	9
Service Charge:	$1,537.86 per delivery point per month	
TVA Administrative Charge:	$350.00 per delivery point per month	
Excess Demand:	Demand amount that exceeds the effective contract demand.	
Off-Peak Block 1:	First 200 hours use of on-peak metered demand multiplied by the ratio of metered off-peak energy to metered total energy.	
Off-Peak Block 2:	Next 200 hours use of on-peak metered demand multiplied by the ratio of metered off-peak energy to metered total energy.	
Off-Peak Block 3:	Over 400 hours use of on-peak metered demand multiplied by the ratio of metered off-peak energy to metered total energy.	

Rates applicable for delivery at:	Transmission Voltage: 115 kV and up			
	TDGSA	TGSB	TGSC	TGSD
Summer				
On-peak billing demand per kW:	$10.90	$10.82	$10.82	$10.82
Maximum billing demand per kW:	$5.71	$5.70	$5.16	$4.90
Excess demand per kW:	$10.90	$10.82	$10.82	$10.82
On-peak energy per kWh:	$0.08146	$0.06647	$0.06647	$0.06552
Off-peak block 1 per kWh:	$0.04812	$0.04166	$0.04166	$0.04072
Off-peak block 2 per kWh:	$0.00583	$0.00695	$0.00695	$0.00487
Off-peak block 3 per kWh:	$0.00282	$0.00355	$0.00355	$0.00261
Winter				
On-peak billing demand per kW:	$9.95	$9.85	$9.85	$9.85
Maximum billing demand per kW:	$5.71	$5.70	$5.16	$4.90
Excess demand per kW:	$9.95	$9.85	$9.85	$9.85
On-peak energy per kWh:	$0.06624	$0.05515	$0.05515	$0.05421
Off-peak block 1 per kWh:	$0.05107	$0.04387	$0.04387	$0.04292
Off-peak block 2 per kWh:	$0.00583	$0.00695	$0.00695	$0.00487
Off-peak block 3 per kWh:	$0.00282	$0.00355	$0.00355	$0.00261

Electric Division Rate Class (cont.)	Base Charge	Customers

Time Of Use General Service
(Schedule TGS)
(cont.)

Rates applicable for delivery at:	Transmission Voltage: 115 kV and up			
	TDGSA	TGSB	TGSC	TGSD
Transition				
On-peak billing demand per kW:	$9.95	$9.85	$9.85	$9.85
Maximum billing demand per kW:	$5.71	$5.70	$5.16	$4.90
Excess demand per kW:	$9.95	$9.85	$9.85	$9.85
On-peak energy per kWh:	$0.05226	$0.04134	$0.04134	$0.04040
Off-peak block 1 per kWh:	$0.05226	$0.04134	$0.04134	$0.04040
Off-peak block 2 per kWh:	$0.00583	$0.00695	$0.00695	$0.00487
Off-peak block 3 per kWh:	$0.00282	$0.00355	$0.00355	$0.00261

Rates applicable for delivery at:	Distribution Voltage: < 115 kV			
	TDGSA	TGSB	TGSC	TGSD
Summer				
On-peak billing demand per kW:	$11.22	$11.14	$11.14	$11.14
Maximum billing demand per kW:	$5.83	$5.82	$5.28	$5.02
Excess demand per kW:	$11.22	$11.14	$11.14	$11.14
On-peak energy per kWh:	$0.08381	$0.06837	$0.06837	$0.06742
Off-peak block 1 per kWh:	$0.04949	$0.04283	$0.04283	$0.04189
Off-peak block 2 per kWh:	$0.00596	$0.00712	$0.00712	$0.00500
Off-peak block 3 per kWh:	$0.00286	$0.00362	$0.00362	$0.00268
Winter				
On-peak billing demand per kW:	$10.24	$10.14	$10.14	$10.14
Maximum billing demand per kW:	$5.83	$5.82	$5.28	$5.02
Excess demand per kW:	$10.24	$10.14	$10.14	$10.14
On-peak energy per kWh:	$0.06814	$0.05672	$0.05672	$0.05578
Off-peak block 1 per kWh:	$0.05253	$0.04511	$0.04511	$0.04416
Off-peak block 2 per kWh:	$0.00596	$0.00712	$0.00712	$0.00500
Off-peak block 3 per kWh:	$0.00286	$0.00362	$0.00362	$0.00268
Transition				
On-peak billing demand per kW:	$10.24	$10.14	$10.14	$10.14
Maximum billing demand per kW:	$5.83	$5.82	$5.28	$5.02
Excess demand per kW:	$10.24	$10.14	$10.14	$10.14
On-peak energy per kWh:	$0.05375	$0.04250	$0.04250	$0.04156
Off-peak block 1 per kWh:	$0.05375	$0.04250	$0.04250	$0.04156
Off-peak block 2 per kWh:	$0.00596	$0.00712	$0.00712	$0.00500
Off-peak block 3 per kWh:	$0.00286	$0.00362	$0.00362	$0.00268

Time Of Use Manufacturing Service **(Schedule TMS)**	Effective October 1, 2018.	25
Service Charge:	$1,537.86 per delivery point per month	
TVA Administrative Charge:	$350.00 per delivery point per month	
Excess Demand:	Demand amount that exceeds the effective contract demand.	

Electric Division Rate Class (cont.)	**Base Charge**	**Customers**
Time Of Use Manufacturing Service (Schedule TMS) (cont.)		
Off-Peak Block 1:	First 200 hours use of on-peak metered demand multiplied by the ratio of metered off-peak energy to metered total energy.	
Off-Peak Block 2:	Next 200 hours use of on-peak metered demand multiplied by the ratio of metered off-peak energy to metered total energy.	
Off-Peak Block 3:	Over 400 hours use of on-peak metered demand multiplied by the ratio of metered off-peak energy to metered total energy.	

Rates applicable for delivery at:	Transmission Voltage: 115 kV and up			
	TDMSA	TMSB	TMSC	TMSD
Summer				
On-peak billing demand per kW:	$10.19	$10.19	$10.19	$10.19
Maximum billing demand per kW:	$3.95	$2.64	$2.10	$1.83
Excess demand per kW:	$10.19	$10.19	$10.19	$10.19
On-peak energy per kWh:	$0.05622	$0.05848	$0.05736	$0.05447
Off-peak block 1 per kWh:	$0.03134	$0.03360	$0.03247	$0.02959
Off-peak block 2 per kWh:	$0.00404	$0.00404	$0.00544	$0.00313
Off-peak block 3 per kWh:	$0.00150	$0.00150	$0.00544	$0.00255
Winter				
On-peak billing demand per kW:	$9.23	$9.23	$9.23	$9.23
Maximum billing demand per kW:	$3.95	$2.64	$2.10	$1.83
Excess demand per kW:	$9.23	$9.23	$9.23	$9.23
On-peak energy per kWh:	$0.04486	$0.04713	$0.04600	$0.04311
Off-peak block 1 per kWh:	$0.03356	$0.03582	$0.03468	$0.03179
Off-peak block 2 per kWh:	$0.00404	$0.00404	$0.00544	$0.00313
Off-peak block 3 per kWh:	$0.00150	$0.00150	$0.00544	$0.00255

Electric Division Rate Class (cont.)	Base Charge	Customers

**Time Of Use Manufacturing Service
(Schedule TMS)
(cont.)**

Rates applicable for delivery at:	Transmission Voltage: 115 kV and up			
	TDMSA	TMSB	TMSC	TMSD
Transition				
On-peak billing demand per kW:	$9.23	$9.23	$9.23	$9.23
Maximum billing demand per kW:	$3.95	$2.64	$2.10	$1.83
Excess demand per kW:	$9.23	$6.23	$9.23	$9.23
On-peak energy per kWh:	$0.03444	$0.03668	$0.03555	$0.03266
Off-peak block 1 per kWh:	$0.03444	$0.03668	$0.03555	$0.03266
Off-peak block 2 per kWh:	$0.00404	$0.00404	$0.00544	$0.00313
Off-peak block 3 per kWh:	$0.00150	$0.00150	$0.00544	$0.00255

Rates applicable for delivery at:	Distribution Voltage: < 115 kV			
	TDMSA	TMSB	TMSC	TMSD
Summer				
On-peak billing demand per kW:	$10.49	$10.49	$10.49	$10.49
Maximum billing demand per kW:	$4.02	$2.68	$2.14	$1.87
Excess demand per kW:	$10.49	$10.49	$10.49	$10.49
On-peak energy per kWh:	$0.05784	$0.06016	$0.05901	$0.05606
Off-peak block 1 per kWh:	$0.03223	$0.03456	$0.03339	$0.03045
Off-peak block 2 per kWh:	$0.00413	$0.00413	$0.00557	$0.00321
Off-peak block 3 per kWh:	$0.00152	$0.00152	$0.00557	$0.00262
Winter				
On-peak billing demand per kW:	$9.50	$9.50	$9.50	$9.50
Maximum billing demand per kW:	$4.02	$2.68	$2.14	$1.87
Excess demand per kW:	$9.50	$9.50	$9.50	$9.50
On-peak energy per kWh:	$0.04615	$0.04848	$0.04732	$0.04436
Off-peak block 1 per kWh:	$0.03451	$0.03684	$0.03567	$0.03271
Off-peak block 2 per kWh:	$0.00413	$0.00413	$0.00557	$0.00321
Off-peak block 3 per kWh:	$0.00152	$0.00152	$0.00557	$0.00262
Transition				
On-peak billing demand per kW:	$9.50	$9.50	$9.50	$9.50
Maximum billing demand per kW:	$4.02	$2.68	$2.14	$1.87
Excess demand per kW:	$9.50	$9.50	$9.50	$9.50
On-peak energy per kWh:	$0.03542	$0.03773	$0.03656	$0.03361
Off-peak block 1 per kWh:	$0.03542	$0.03773	$0.03656	$0.03361
Off-peak block 2 per kWh:	$0.00413	$0.00413	$0.00557	$0.00321
Off-peak block 3 per kWh:	$0.00152	$0.00152	$0.00557	$0.00262

Electric Division Rate Class (cont.)	Base Charge	Customers
Drainage Pumping Station Rate (Schedule DPS)	Effective October 1, 2018.	6
Customer Charge:	$15.91 per delivery point per month	

Energy Charge:

	Summer	Winter	Transition
All kWh per month:	$0.03952	$0.03637	$0.03444

Outdoor Lighting Rate (Schedule LS)	Effective October 1, 2018.	17,141

Part A – Charges for street and park lighting systems, traffic signal systems, and athletic field lighting installations.

Energy Charge:

	Summer	Winter	Transition
All kWh per month:	$0.05035	$0.04715	$0.04521

Outdoor Lighting Facilities Charge:

The annual facility charge shall be 10.41% of the installed cost to the Division's electric system of the facility devoted to street and park lighting service specified in this Part A. Such installed cost shall be recomputed on July 1 of each year, or more often if substantial changes in the facilities are made. Each month, one-twelfth of the then total annual facility charge shall be billed to the customer. If any part of the facilities has not been provided at the electric system's expense or if the installed cost of any portion thereof is reflected on the books of another municipality or agency or department, the annual facility charge shall be adjusted to reflect properly the remaining cost to be borne by the electric system.

Traffic signal systems and athletic field lighting installations shall be provided, owned, and maintained by and at the expense of the customer, except as Division may agree otherwise in accordance with the provisions of the paragraph next following in this section. The facilities necessary to provide service to such systems and installations shall be provided by and at the expense of Division's electric system, and the annual facility charge provided for first above in this section shall apply to the installed cost of such facilities.

When so authorized by policy duly adopted by Division's governing board, traffic signal systems and athletic field lighting installations may be provided, owned and maintained by Division's electric system for the customer's benefit. In such cases Division may require reimbursement from the customer for a portion of the initial installed cost of any such system or installation and shall require payment by the customer of facility charges sufficient to cover all of Division's costs (except reimbursed costs), including appropriate overheads, of providing, owning, and maintaining such system or installation; provided that, for athletic field lighting installations, such facility charge shall in no case be less than 12% per year of such costs. Said facility charge shall be in addition to the annual facility charge on the facilities necessary to provide service to such system or installation as provided for in the preceding paragraphs.

Electric Division Rate Class (cont.)	**Base Charge**	**Customers**

Outdoor Lighting Rate (Schedule LS)
(cont.)

Part B – Charges for outdoor lighting for individual customers – charges per fixture per month:

(a) Type of Fixture

	Lamp Size		Rated	Facility
	(Watts)	(Lumens)	(kWh)	Charge
Mercury Vapor or Incandescent	175	7,650	70	$3.02
	250	10,400	98	3.58
	400	19,100	155	4.53
	700	33,600	266	6.11
	1,000	47,500	378	7.78
Metal Halide	175	8,300	70	$3.02
	250	14,000	98	3.58
	400	22,600	155	4.53
	1,000	88,000	378	7.78
High Pressure Sodium	50	3,285	22	$4.30
	100	8,550	42	4.59
	150	14,400	63	4.73
	200	18,900	82	5.14
	250	23,000	105	5.43
	400	45,000	165	6.45
	1,000	126,000	385	10.30
LED	100	7,000	24	$5.31
	150	9,300	31	5.53
	200	13,400	45	5.97

(b) Energy Charge:

For each lamp size under (a) above per rated kWh per month:

	Summer	Winter	Transition
All rated kWh per month:	$0.05035	$0.04715	$0.04521

Gas Division Rate Class	Base Charge	Customers
Residential G-1 & G-3	Effective meters read on or after July 2, 2018 Schedule G-1 is available for domestic use to residential customers in individual private residences or other individual dwelling units situated within the corporate limits of the City of Memphis, Tennessee. Schedule G-3 is available for domestic use to residential customers in individual private residences or other individual dwelling units situated outside the corporate limits of the City of Memphis, Tennessee.	290,103
Service Charge:	$ 10.22 per month, plus	
Commodity Charge:	First 100 ccf per month @ $0.599 per ccf Excess over 100 ccf per month @ $0.507 per ccf, plus the above rates are subject to adjustment under the provisions of the Purchased Gas Adjustment Rider.	
Minimum Bill:	$10.22 per meter per month	
Small General Service G-7	Effective meters read on or after July 2, 2018 This rate schedule is available for gas service to all gas customers except residential.	21,018
Service Charge:	For 0 to 425 cf meter, $30.65 Over 426 to 1,400 cf meter, $56.19 Over 1,400 cf meter, $102.17 per month plus,	
Commodity Charge:	All gas consumed: $0.542 per ccf per month, plus The above rates are subject to adjustment under the provisions of the Purchased Gas Adjustment Rider.	
Minimum Bill:	The minimum monthly bill shall be $0.668 for each ccf of the higher of: (1) The maximum daily demand during the preceding eleven months, or (2) The daily contract demand, but in no case less than the Service charge listed above.	
Large General Service Firm on-peak G-8 and G-9	Effective meters on or after July 2, 2018 This rate schedule is available for gas service to all customers contracting for not less than 100 ccf of maximum daily demand.	419
Demand Charge:	$0.256 ccf per month of contract demand or maximum daily demand during the twelve (12) months ending with the billing month, whichever is higher, plus	

Gas Division Rate Class (cont.)	Base Charge	Customers
Large General Service Firm on-peak G-8 and G-9 (cont.)		
Commodity Charge:	First 200,000 ccf per month @ $0.499 per ccf	
	Excess over 200,000 ccf per month @ $0.403 per ccf, plus	
	The above rates are subject to adjustment under the provisions of the Purchased Gas Adjustment Rider.	
Minimum Bill:	The minimum bill shall be $0.924 for each ccf of the higher of: (1) the maximum daily demand during the twelve (12) months ending with the billing month, or (2) the daily contract demand.	
Large General Service Interruptible Off-peak G-10 and G-12	Effective meters on or after July 2, 2018	20
	This rate schedule is available for gas service to all customers contracting for not less than 1,500 ccf of maximum daily demand and providing oil or other alternate fuel facilities approved by the Division as being adequate in design and capacity.	
Service Charge:	$510.83 per month, plus	
Commodity Charge:	First 200,000 Ccf per month @ $0.468 per ccf	
	Excess over 200,000 ccf per month @ $0.397 per ccf, plus	
	The above rates are subject to adjustment under the provisions of the Purchased Gas Adjustment Rider.	
Minimum Bill:	The minimum monthly bill shall be $0.358 for each ccf of the higher of (1) the maximum daily demand during the twelve months ending with the billing month, or (2) the daily contract demand, but in no event less than the service charge.	

Water Division Rate Class	Base Charge		Customers
Residential – Inside City Rate	Effective meters read on or after January 31, 2018		185,343
	For water furnished to premises entirely within the corporate limits of the City of Memphis		
Commodity Charge:	All water consumed: $1.855 per ccf per month		
Minimum Bill:	The minimum monthly bill shall be determined by the size of the meter installed, as follows:		
	5/8" meter	$7.84	
	3/4" meter	11.32	
	1" meter	20.08	
	1-1/2" meter	45.17	
	2" meter	80.31	
Residential – Outside City Rate	Effective meters read on or after January 31, 2018		23,472
	For water furnished to premises outside the corporate limits of the City of Memphis		
Commodity Charge:	All water consumed: $2.888 per ccf per month		
Minimum Bill:	The minimum monthly bill shall be determined by the size of the meter installed, as follows:		
	5/8" meter	$10.92	
	3/4" meter	15.70	
	1" meter	27.95	
	1-1/2" meter	62.85	
	2" meter	111.72	
General Service – Inside City Rate	Effective meters read on or after January 31, 2018		18,914
	For water service to all customers within the corporate limits of the City of Memphis, except residential customers		
Commodity Charge:	Water consumed per month:		
	First 30 ccf	$2.365 per ccf	
	Next 70 ccf	$2.011 per ccf	
	Next 100 ccf	$1.530 per ccf	
	Next 400 ccf	$1.274 per ccf	
	Next 5,400 ccf	$0.991 per ccf	
	Excess over 6,000 ccf	$1.033 per ccf	

Water Division Rate Class (cont.)	Base Charge	Customers
General Service – Inside City Rate (cont.)		
Minimum Bill:	The minimum monthly bill shall be determined by the size of the meter installed, as follows:	

5/8" meter	$15.02
3/4" meter	17.52
1" meter	30.03
1-1/2" meter	60.08
2" meter	125.22
3" meter	250.36
4" meter	374.38
6" meter	473.61
8" meter	572.86
10" meter	1,186.66
12" meter	1,655.77
14" meter	2,276.71
Battery of 2-2" meters	250.36
Battery of 3-2" meters	374.38

General Service – Outside City Rate	Effective meters read on or after January 31, 2018	821
	For water service to all customers outside the corporate limits of the City of Memphis, except residential customers	
Commodity Charge:	Water consumed per month:	

First 30 ccf	$3.554 per ccf
Next 70 ccf	$2.988 per ccf
Next 100 ccf	$2.280 per ccf
Next 400 ccf	$1.912 per ccf
Next 5,400 ccf	$1.500 per ccf
Excess over 6,000 ccf	$1.557 per ccf

Minimum Bill:	The minimum monthly bill shall be determined by the size of the meter installed, as follows:

5/8" meter	$22.97
3/4" meter	26.80
1" meter	45.94
1-1/2" meter	91.85
2" meter	191.39
3" meter	382.81
4" meter	572.08
6" meter	723.72
8" meter	875.36
10" meter	1,813.32
12" meter	2,530.18
14" meter	3,476.62
Battery of 2-2" meters	382.81
Battery of 3-2" meters	572.08

Water Division Rate Class (cont.)	Base Charge	Customers
Residential – Shelby County Water Distribution System	Effective meters read on or after January 31, 2018	18,782
	For water service within the area served by the Shelby County Water Distribution System at the time of its acquisition on June 30, 1999, for domestic uses to residential customers in individual private residences or other individual dwelling units.	
Monthly Rate:	All water consumed $2.888 per ccf per month	
Minimum Bill:	The minimum monthly bill shall be determined by the size of the meter installed, as follows:	
	5/8" meter $10.92 3/4" meter $15.70 1" meter $27.95 1-1/2" meter $62.85 2" meter $111.72	
	Residential customers shall be served through a single meter not larger than 2" in size.	
Commercial - Industrial – Shelby County Water Distribution System	Effective meters read on or after January 31, 2018	638
	For water service within the area served by the Shelby County Water Distribution System at the time of its acquisition on June 30, 1999, for all customers except residential customers using service exclusive for domestic use.	
Monthly Rate:	Water consumed per month: First 30 ccf $3.554 per ccf Next 70 ccf $2.988 per ccf Next 100 ccf $2.280 per ccf Next 400 ccf $1.912 per ccf Next 5,400 ccf $1.500 per ccf Excess over 6000 ccf $1.557 per ccf	

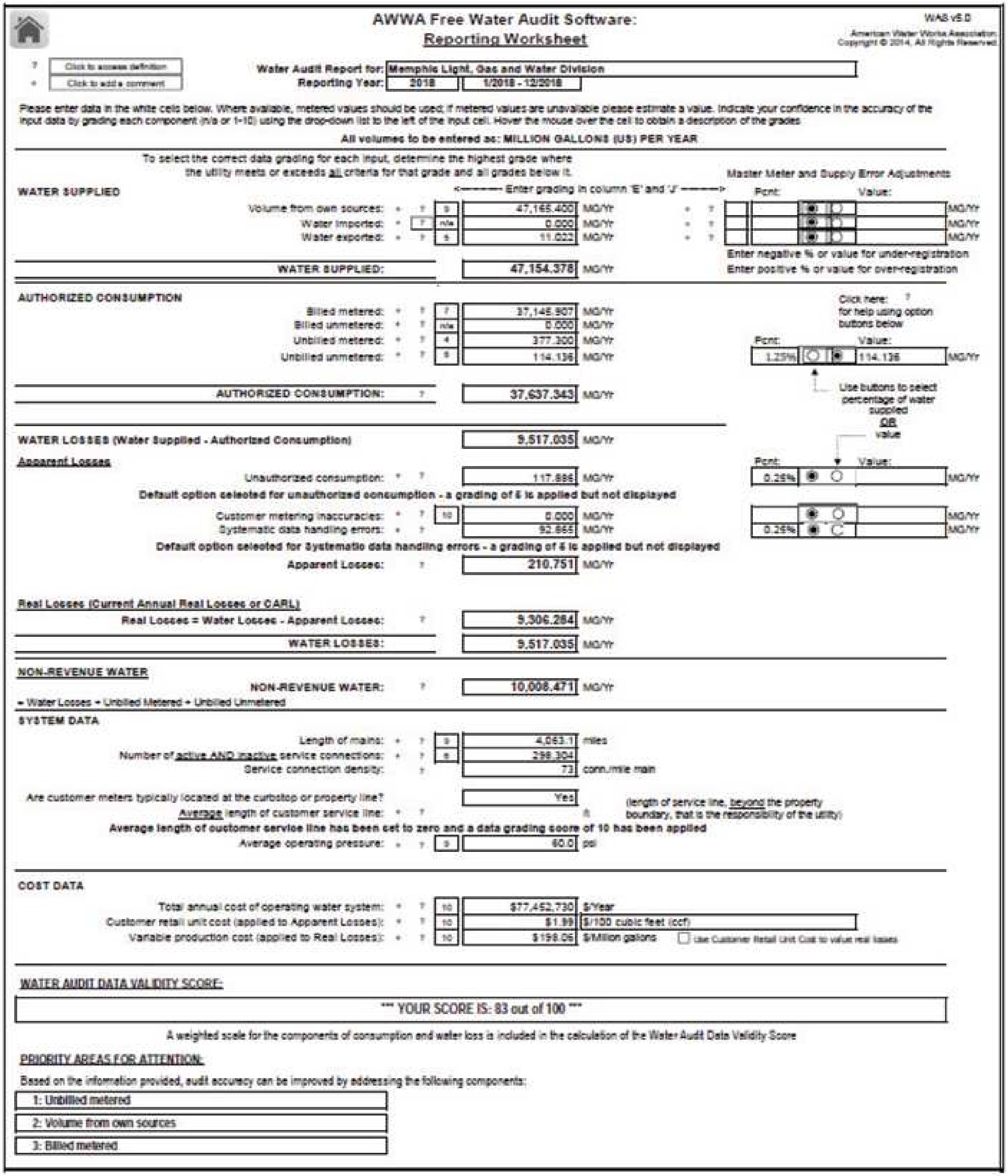
Water Division Rate Class (cont.)	Base Charge	Customers

Commercial - Industrial – Shelby County
Water Distribution System (cont.)

Minimum Bill: The minimum monthly bill shall be determined by the size of the meter installed, as follows:

5/8" meter	$22.97
3/4" meter	26.80
1" meter	45.94
1-1/2" meter	91.85
2" meter	191.39
3" meter	382.81
4" meter	572.08
6" meter	723.72
8" meter	875.36
10" meter	1,813.32
12" meter	2,530.18
14" meter	3,476.62

NON-REVENUE WATER
FOR THE YEAR ENDED DECEMBER 31, 2018



AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.
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? Click to access definition
+ Click to add a comment

Water Audit Report for: Memphis Light, Gas and Water Division
Reporting Year: 2018 | 1/2018 - 12/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<------ Enter grading in column 'E' and 'J' ------>

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:		Value:	
Volume from own sources:	9	47,165.400	MG/Yr			● ○		MG/Yr
Water imported:	n/a	0.000	MG/Yr			● ○		MG/Yr
Water exported:	5	11.022	MG/Yr			● ○		MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 47,154.378 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:		Value:	
Billed metered:	7	37,145.907	MG/Yr				
Billed unmetered:	n/a	0.000	MG/Yr				
Unbilled metered:	4	377.300	MG/Yr				
Unbilled unmetered:	5	114.136	MG/Yr	1.25%	○ ●	114.136	MG/Yr

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 37,637.343 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 9,517.035 MG/Yr

Apparent Losses

				Pcnt:		Value:	
Unauthorized consumption:		117.886	MG/Yr	0.25%	● ○		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	10	0.000	MG/Yr		● ○		MG/Yr
Systematic data handling errors:		92.865	MG/Yr	0.25%	● ○		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 210.751 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 9,306.284 MG/Yr

WATER LOSSES: 9,517.035 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 10,008.471 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	4,063.1	miles
Number of active AND inactive service connections:	6	298,304	
Service connection density:		73	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: ft (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 9 | 60.0 psi

COST DATA

Total annual cost of operating water system:	10	$77,452,730	$/Year
Customer retail unit cost (applied to Apparent Losses):	10	$1.99	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	10	$198.06	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 83 out of 100 ***

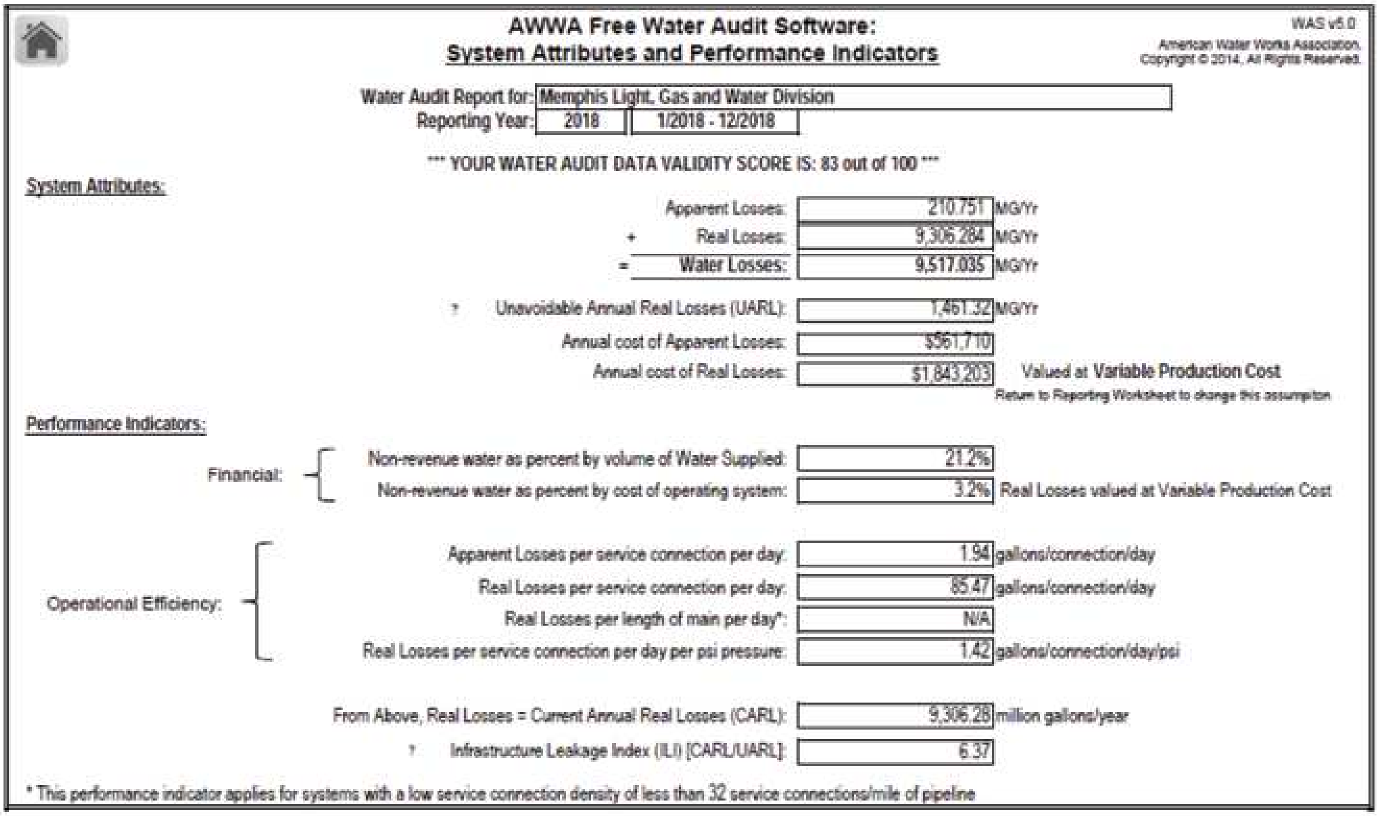
A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Unbilled metered
2: Volume from own sources
3: Billed metered

NON-REVENUE WATER
FOR THE YEAR ENDED DECEMBER 31, 2018
(Continued)



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: Memphis Light, Gas and Water Division
Reporting Year: 2018 | 1/2018 - 12/2018

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 83 out of 100 ***

System Attributes:

Apparent Losses: 210.751 MG/Yr
\+ Real Losses: 9,306.284 MG/Yr
= **Water Losses:** 9,517.035 MG/Yr

? Unavoidable Annual Real Losses (UARL): 1,461.32 MG/Yr
Annual cost of Apparent Losses: $561,710
Annual cost of Real Losses: $1,843,203 Valued at **Variable Production Cost**
Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:
Non-revenue water as percent by volume of Water Supplied: 21.2%
Non-revenue water as percent by cost of operating system: 3.2% Real Losses valued at Variable Production Cost

Operational Efficiency:
Apparent Losses per service connection per day: 1.94 gallons/connection/day
Real Losses per service connection per day: 85.47 gallons/connection/day
Real Losses per length of main per day*: N/A
Real Losses per service connection per day per psi pressure: 1.42 gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL): 9,306.28 million gallons/year
? Infrastructure Leakage Index (ILI) [CARL/UARL]: 6.37

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

SCHEDULE OF INSURANCE
FOR THE YEAR ENDED DECEMBER 31, 2018
(Dollars in Thousands)

Type of Coverage	Amount of Coverage	
Property	$ 600,000	
Crime	2,500	
Excess Insurance for Workers Compensation and Employers Liability	2,000	
Out of State Automobile Travel	1,000	
Travel Accident	1,000	
Commercial Automobile	1,000	
Leased Rental Equipment	300	per item
	1,000	coverage limit

SCHEDULE OF ADDITIONS AND RETIREMENTS TO UTILITY PLANT
DECEMBER 31, 2018
(Dollars in Thousands)

	Electric Division	Gas Division	Water Division
Utility plant in service, December 31, 2017	$ 1,789,309	$ 694,647	$ 499,995
Additions - Construction	81,746	39,583	17,738
Additions - Acquisition Adjustment	-	-	964
Retirements	(15,267)	(11,539)	(3,512)
Transfers	(8,606)	(76)	-
Utility plant in service, December 31, 2018	**$ 1,847,182**	**$ 722,615**	**$ 515,185**

Note: Utility plant in service balances exclude amounts for construction work in process; non-utility property and plant held for future use.

5100 Poplar Ave., 30th Floor ▪ Memphis, TN 38137
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Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on Audits of Financial Statements Performed in Accordance with *Government Auditing Standards*

Independent Auditor's Report

To the Board of Commissioners and Management
Memphis Light, Gas and Water Division
Memphis, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Electric, Gas and Water Divisions (the "Divisions") of Memphis Light, Gas and Water Division, enterprise funds of the City of Memphis, Tennessee, as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the Divisions' basic financial statements, and have issued our report thereon dated June 5, 2019.

Internal Control Over Financial Reporting

In planning and performing our audits of the financial statements, we considered the Divisions' internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Divisions' internal control. Accordingly, we do not express an opinion on the effectiveness of the Divisions' 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 Divisions' 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 and therefore, material weaknesses or significant deficiencies may exist that have not been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify certain deficiencies in internal control, described in the accompanying Schedule of Findings and Responses as items 2018-001 and 2018-002 that we consider to be significant deficiencies.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Divisions' financial statements are free from material misstatement, we performed tests of the Divisions' 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 that are required to be reported under *Government Auditing Standards*. The results of our test disclosed an other matter that is required to be disclosed under *Government Auditing Standards*, which is described in the accompanying Schedule of Findings and Responses as item 2018-002.

The Divisions' Responses to Findings

The Divisions' responses to the findings identified in our audits are included in the accompanying Schedule of Findings and Responses. The Divisions' responses were not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

Purpose of this 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 Divisions' internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Divisions' internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Mayer Hoffman McCann P.C.

Memphis, Tennessee
June 5, 2019

Significant Deficiencies in Internal Control over Financial Reporting

2018-001 Segregation of Accounts Payable Functions

Criteria: Internal controls over accounts payable invoice processing should ensure an appropriate segregation of duties and appropriate levels of authority.

Condition: During 2017, the Finance Division requested an invoice processing review. In January 2018, Internal Audit completed a review of the controls over invoice processing for MLGW. Additionally, in March 2019, Internal Audit completed a vendor management-payments audit. During 2018, management made improvements to strengthen the internal controls in this area. However, certain employees with either purchase order creation, invoice processing, or check handling responsibilities had system access to add to or modify MLGW's Vendor Master File. Additionally, it was noted that there was limited monitoring of the appropriateness of access levels by job or access changes for employees and no compensating controls to detect inappropriate activities.

Cause: During 2017, MLGW replaced its Management Support System with additional Oracle Enterprise Business Suite Modules purchased and implemented as Project Inspire. The implementation has a major impact on invoice processing and internal controls previously established by the Finance Division. During 2017 and 2018, the new system was undergoing continual modifications. Due to difficulty with implementation of Project Inspire, some internal control modifications had to be postponed until 2019.

Potential Effect: The opportunity to create or modify vendor files and perform multiple functions within the area of accounts payable processing is an internal control weakness which can result in unauthorized payments or a misappropriation of funds.

Recommendation: We encourage management to continue to implement recommendations provided by Internal Audit in its letters dated January 18, 2018 and March 25, 2019. These recommendations include evaluating and determining the persons who should have Vendor Master File update functions and eliminating access to other users. Additionally, exception reports should be generated for monitoring changes to the Vendor Master File.

Views of Responsible Officials and Planned Corrective Actions: In response to Internal Audit's Invoice Processing Review Consulting Engagement Report dated January 10, 2018 and the Vendor Management Payments Audit dated March 26, 2019, management reviewed the users with access to update/modify MLGW's Vendor Master File and revoked access for those without a need. The access was revoked from users without a need on June 3, 2019.

In addition, the Manager of Procurement & Contracts will collaborate with the IT Department to create an Oracle Responsibility to view only the Vendor Master File.

Significant Deficiencies in Internal Control over Financial Reporting (continued)

2018-002 Physical Security of Scrap Metal

Criteria: Due to its resale value, scrap materials are subject to theft and therefore should be safeguarded until sold and accounted for properly.

Condition: Internal Audit completed an investment recovery salvage audit in August 2018 and noted physical controls and monitoring of scrap metal is not sufficient. Specifically, there was no documented evidence for the accumulation, handling, and storage of salvage materials including scrap metals. Corporate Security has investigated the theft of scrap metal and it resulted in the indictment of two employees for theft of property.

Cause: Scrap metal inventory is not safeguarded during storage. Scrap metal sales are controlled by one employee with little evidence of oversight.

Effect: Theft of scrap metal and other salvage inventory has occurred.

Recommendation: Many recommendations suggested by internal audit have been implemented and we encourage management to continue to consider recommendations in the August 2018 report. In particular, management should take steps to ensure scrap materials are placed in secure storage areas with periodic counts.

Views of Responsible Officials and Planned Corrective Actions: The MLGW Corporate Security Department concluded its internal investigation of this matter and turned over its findings to local law enforcement authorities. As a result of the investigation appropriate disciplinary action was taken against two MLGW employees for violation of MLGW HR Policy #23-10, "Theft and/or Unauthorized Use of MLGW Property and/or Utility Services."

In addition, in response to recommendations made by Internal Audit in their report dated, August 28, 2018, Management of the Material and Stores Department revised the scrap metal transfer process to enhance controls around the physical storage and disposition of scrap metal.

MEMPHIS LIGHT, GAS AND WATER DIVISION

Schedule of Prior Year Audit Findings
For the Year Ended December 31, 2018

2017-001 Timeliness of account reconciliations

Current status: The IT Department has successfully resolved most high priority deficiencies that impacted the year-end closing process and continues to identify and resolve deficiencies with the new accounting system. As a result of the corrective measures taken to correct deficiencies and improve the new system, for fiscal year 2018, the monthly and year-end close process was more efficient compared to fiscal year 2017. The trial balance was provided in a timely manner and account reconciliations were performed accurately and on a timely basis. Also, proper reconciliations between subledgers and the general ledger were performed on a timely basis as well.

2017-002 Segregation of accounts payable functions

Current status: In response to Internal Audit's Invoice Processing Review Consulting Engagement Report dated January 10, 2018 management reviewed the users with MLGW Payables and Purchasing Super User responsibilities and revoked access for those without a need. The access was revoked from Users without a need on March 14, 2018.

In addition, management will collaborate with the IT Department to improve the data security. Management will request IT Department to provide data owners a report detailing the employees with access to each Oracle Application/Ledger. The report will be available on demand and provided on a monthly basis by the IT Department.

2017-003 Physical security of scrap metal

Current status: The MLGW Corporate Security Department concluded its internal investigation of this matter and turned over its findings to local law enforcement authorities. As a result of the investigation appropriate disciplinary action was taken against two MLGW employees for violation of MLGW HR Policy #23-10, "Theft and/or Unauthorized Use of MLGW Property and/or Utility Services".

In addition, in response to recommendations made by Internal Audit in their report dated, August 28, 2018, Management of the Material and Stores Department revised the scrap metal transfer process to enhance controls around the physical storage and disposition of scrap metal.

MLGW

Serving you is
what we do