



MLGW

SERVING YOU IS  
WHAT WE DO

# 2021 Budget

City Council Approved November 17, 2020



## **The MLGW Board of Commissioners & Advisory Board Members**



**Chairman Carlee McCullough, Esq**



**Vice-Chairman Mitch Graves**



**Commissioner Steven Wishnia**



**Commissioner Leon Dickson Sr.**



**Commissioner Michael Pohlman**

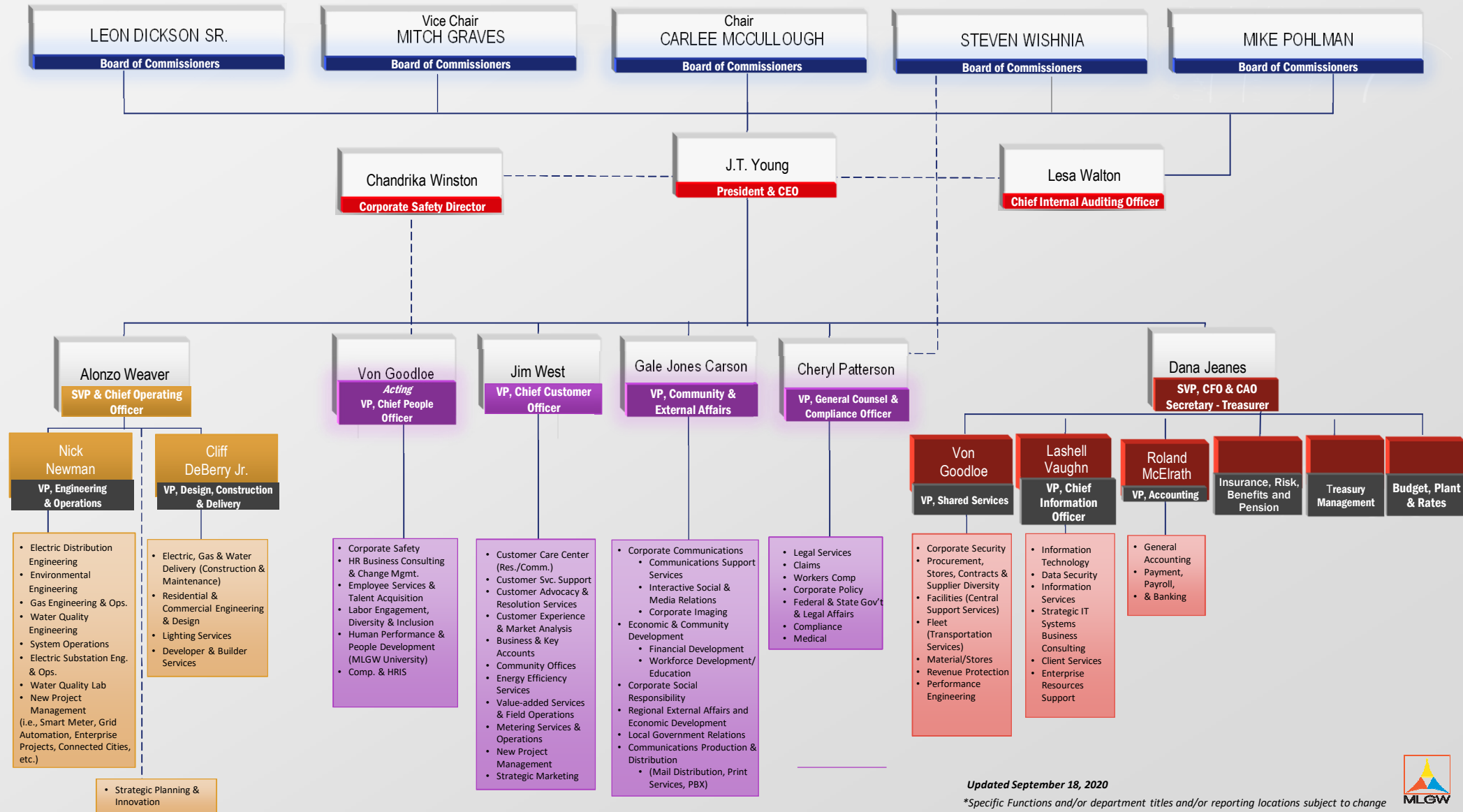


**Advisory Board Member Kevin Young**



**Advisory Board Member Dwain Kicklighter**

# Senior Leadership Council and Functions



Updated September 18, 2020

\*Specific Functions and/or department titles and/or reporting locations subject to change



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# **How to Read the Budget**

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## **INTRODUCTION**

We are pleased to submit the 2021 Budget of Memphis Light, Gas and Water Division (MLGW) as required by Memphis City Ordinance #3509. This Budget has been prepared in compliance with this ordinance, which requires conformity to the Federal Energy Regulatory Commission (FERC), the regulations of any other applicable regulatory body, and in accordance with the provisions of the bond resolutions approved by the Memphis City Council.

Memphis Light, Gas and Water Division's accounting and financial practices conform to generally accepted accounting principles (GAAP), under the rules and regulations of the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB).

Memphis Light, Gas and Water Division was created by an amendment to the City Charter, adopted March 9, 1939. 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 pursuant to the City Charter. For economic reasons, activities common to all three divisions are administered jointly and costs are prorated among the divisions. The 2021 operating and capital budgets are developed simultaneously and are presented together in a combined budget. In this manner, MLGW is able to accomplish personnel planning and allocate resources to ensure the achievement of each strategic organization of focus.

## **THE BUDGET PROCESS**

Memphis Light, Gas and Water Division develops the operating and capital expenditure budgets annually to coincide with its fiscal year, which extends from January 1 to December 31. The budget process begins early in the year that precedes the fiscal year for which the budget will take effect. The entire process continues for several months until final approval is obtained by the Memphis City Council.

At the onset of the process, a budget schedule is created to establish the critical deadlines for activities necessary in producing the final approved budget document. Some of the budget calendar events include planning meetings, multiple budget training sessions, capital project budget meetings and equipment budget meetings, all of which are completed before the end of June.

During July through August, requests for the upcoming budget year are submitted by organization supervisors and managers. The vice presidents are then responsible for reviewing the proposed budget and making necessary adjustments.

The proposed budget goes through several stages of formal review and approval before being finalized. The initial level of approval occurs during mid-August through early September by the members of MLGW's executive staff. A preliminary budget document is subsequently

# How to Read the Budget

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developed and presented to the MLGW Board of Commissioners for review and approval in September with the final budget approved by the Memphis City Council scheduled in November as requested per the State of Tennessee Comptroller's Office.

## **CONTENTS OF THE BUDGET DOCUMENT**

This Budget document begins with the Budget Highlights which offers a summary of Total Operating Revenue, Total Operating Expense, Operating Income (Loss), Change in Net Position and the Capital Program for each Division. The information provided in the remaining sections of the Budget document is detailed below.

### **ALL DIVISIONS**

This section supplies a comparison of the Electric, Gas and Water Division's Income, Expense & Change in Net Position and Capital Expenditures Budget for the 2021 Budget.

### **ELECTRIC**

The first page of this section (Page 4) is the *Income, Expense, and Changes in Net Position Comparison* for the Electric Division. It provides a side-by-side view of the 2019 Actual Expenditures, 2020 Budget and the 2021 Budget.

The last column contains a Reference Number that can be cross-referenced with the Appendix, which provides a brief explanation or description of that specific line item; for example, Sales Revenue has a reference number of 4-1. The Appendix includes notes for 4-1 on page A2 stating that "this account includes projected revenue from the sale of electricity to the residential, commercial, industrial, outdoor lighting and traffic signal and interdepartmental customer classes."

The next three pages (4a-4c) provide the detailed account information for each of the line items presented on page 4; for example, the four specific accounts for Non-Sales Revenue are Forfeited Discounts, Miscellaneous Service Revenue, Other Operating Revenue and Rent from Gas/Water Property. The sum of these four accounts (Total Non-Sales Revenue) is rolled up to page 4. The detail account information provides a comparison of the 2020 Budget, 2021 Budget and the difference between the 2020 Budget and 2021 Budget.

Next is the *Source and Application of Funds*, which includes reference numbers that correlate to the Appendices which provide a description of each line item.

The *Capital Expenditures Comparison* (page 6) gives a comparison of the 2019 Actual, 2020 Budget and the 2021 Budget. Again, the last column is the Reference Number that can be used to look up explanations of each line item. The next four pages (7-10) provide information by project for each of the major line items on page 6. Each project listed has the amount that will be spent in the Budget year. Every project has a reference number that can be used to find a description of the project in the Appendix.

# How to Read the Budget

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The last page of this section is the *Capital Carryover Summary*. Carryover dollars are funds that were budgeted in the previous year that were not utilized due to delays in projects, shortage of resources or commodities ordered but not received. These dollars are a component of the 2021 Budget figures.

## **GAS**

The Gas Division section is set up in the same format as the Electric Division: *Income, Expense, and Changes in Net Position Comparison for the Gas Division; Sources and Applications of Funds; Capital Expenditures Comparison; and the Capital Carryover Summary*. Please refer to the Electric description above for information on how to read these sections.

## **WATER**

The Water Division section is set up in the same format as the Electric Division: *Income, Expense and Changes in Net Position Comparison for the Water Division; Sources and Applications of Funds; Capital Expenditures Comparison and the Capital Carryover Summary*. Please refer to the Electric description above for information on how to read these sections.

## **CAPITAL IMPROVEMENT PLAN**

This section includes the Division's five-year capital improvement plan for the Electric, Gas, and Water Divisions. The five-year capital plan is reviewed and updated annually. This plan reflects planned infrastructure improvements related to regulatory compliance, system reliability, and customer related capital improvements to the systems' infrastructure. The five-year plan is found on pages CIP1 – CIP4.

## **APPENDIX**

This section presents a definition and/or explanation of specific line items referenced throughout the Budget document. Each page includes a heading stating what page the information is referencing. For example, Page A1 has a heading of "Notes for Page 3 – Capital Expenditures Budget". This means that the notes for Page 3 begin here and each line item on page three is defined.

The Appendix also includes a Glossary that defines acronyms and other terms commonly used throughout this Budget document.



## MEMPHIS LIGHT, GAS AND WATER DIVISION

October 07, 2020

To Members of the MLGW Board, Memphis City Council, and Our Valued Customers:

I am honored to present the proposed FY2021 Operating and Capital Budgets for the Memphis Light, Gas and Water Division (MLGW). Amidst the current COVID-19 pandemic sweeping the globe, MLGW is planning for its future; a brighter future focused on improved service reliability and customer care. The proposed budgets are built upon the 5-year financial plan adopted by MLGW in fiscal year 2020. The primary objectives of the plan are focused on improving the reliability of our services, modernizing our facilities, operating more efficiently and ultimately delivering more value to our customers. The proposed FY2021 Budget will allow us to accelerate the progress achieved during FY2020, the inaugural year of the 5-year financial plan.

The proposed budget will provide resources needed to deliver reliable, high quality, compassionate services to our customers while maintaining affordable rates relative to other major utilities across the country. In addition, this budget will allow MLGW to maintain its strong financial position, as reflected in the Division's solid financial reserves and impressive funding ratio for both its Pension Plan and Other Post-Employment Benefits Plan.

This budget is also consistent with the MLGW Way Forward, an initiative focused on implementing the 2019 report recommendations offered by Baker Tilly, a well-recognized consultant in the utility industry. In its report to the MLGW Board, the consultant identified operating efficiencies that MLGW should pursue in order to reduce its operating costs. The consultant also provided an assessment of the condition and needs of MLGW's infrastructure.

### **Budget Summary**

The 2021 Operating and Capital Budgets are developed simultaneously and are presented together in a combined budget. In this manner, MLGW is able to accomplish personnel planning and allocate resources to ensure the achievement of specific goals in each strategic area of focus. The major highlights of the 2021 Budget are as follows:

- Continued exploration of operations efficiencies and savings
- Continued capital reinvestment in our infrastructure
- Continued rehabilitation of our water pumping stations
- Major upgrade of security infrastructure to monitor and protect critical system assets
- Financing with bond proceeds
- Implementation of approved rate increases



The Total Operating and Capital Budget for 2021 is \$1.9 billion. Almost \$1.1 billion or approximately 65% percent of operating expense is budgeted for purchased power and gas costs. MLGW's operations and maintenance expenses total \$409.6 million, 24.3% percent of the total Operating Budget. MLGW's payment in lieu of taxes to local governments is projected to be \$76.4 million.

MLGW's capital program of \$189.5 million reflects our commitment toward modernizing and maintaining the integrity and reliability of our system infrastructure.

In conclusion, the 2021 Budget demonstrates MLGW's continued commitment to provide high quality, reliable service to our customers in a cost-effective and efficient manner.

Respectfully,

Jarl "J. T." Young  
President and CEO



## MEMPHIS LIGHT, GAS AND WATER DIVISION

Memphis Light, Gas and Water is owned by the City of Memphis and is the nation's largest three-service municipality in the United States with more than 431,000 customers. MLGW operates three separate utilities, as divisions, providing electricity and gas in the City and Shelby County and water to the City in conjunction with other municipal systems in Shelby County. Memphis Light Gas and Water provides electricity to over 431,000 electric customers, over 320,000 gas customers, and water to over 257,000 customers.

Memphis Light, Gas and Water receives electricity from the Tennessee Valley Authority (TVA) and represents approximately 11 percent of TVA's total electric power load. Memphis Light, Gas and Water acts as a pass through of the electric rates, therefore, not realizing any profit on the sale of electricity.

Memphis Light, Gas and Water provides natural gas to its customers via 3 natural gas pipelines. MLGW buys natural gas from a variety of natural gas suppliers in a mixture of monthly, daily, seasonally and long term contracts while hedging gas purchases to manage the price risk associated with the market price volatility of natural gas.

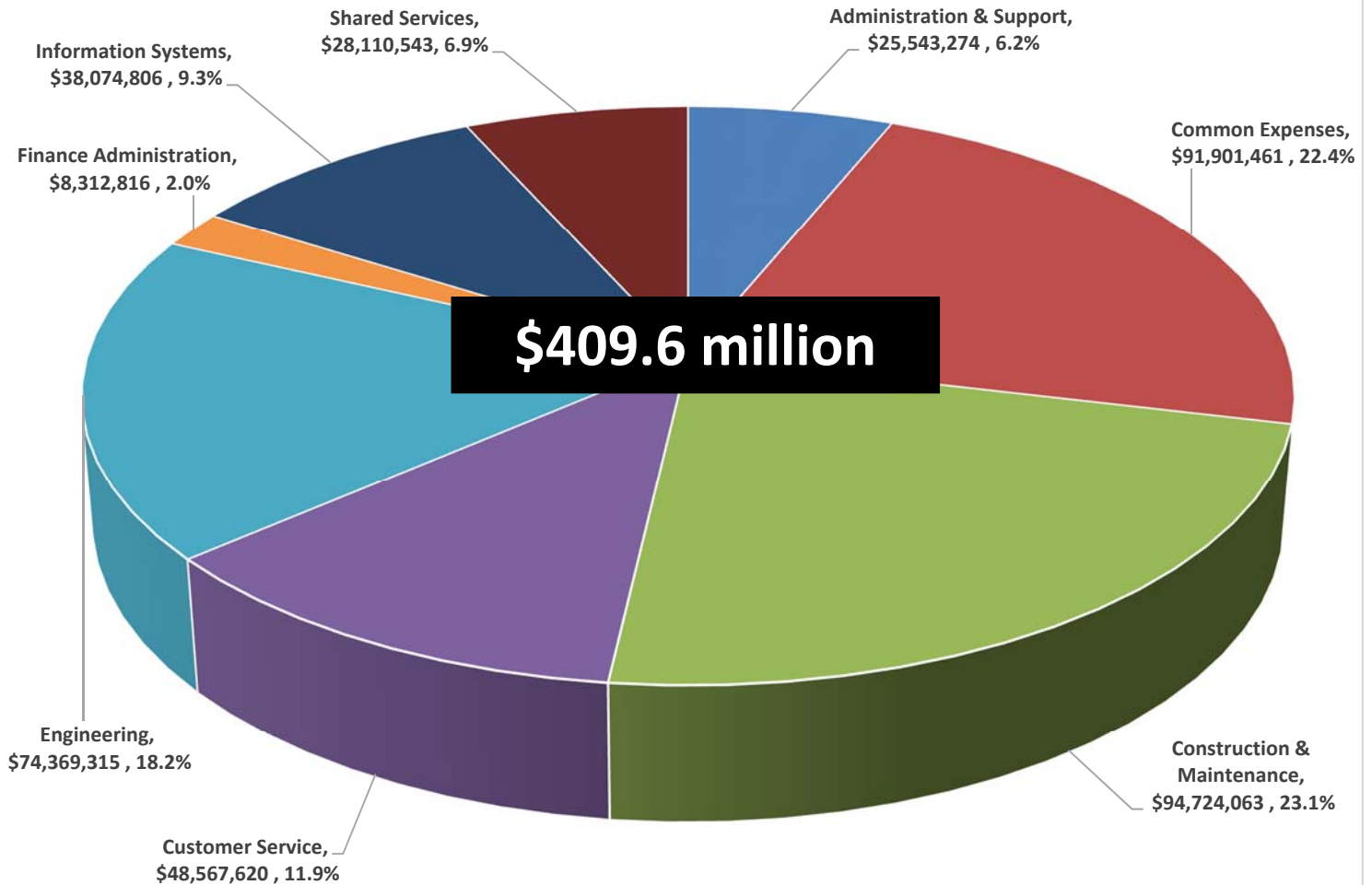
While some utilities obtain drinking water from surface lakes or rivers, MLGW supplies water from the Memphis aquifer, beneath Shelby County. The Memphis aquifer is a treasure to the Memphis and Shelby County areas. The Memphis aquifer contains more than 100 trillion gallons of water that are more than 2,000 years old. MLGW operates this artesian well system through the use of pumping stations and wells to deliver water to its customers.

Memphis Light, Gas and Water is comprised of various organizations and disciplines to ensure safe, reliable, and friendly service to our customers. MLGW is led by President and CEO J.T. Young with oversight provided by the MLGW Board of Commissioners. President Young has a strong affinity for safety and customer services. His leadership principles are exuded through his leadership team. MLGW leadership is comprised of the Senior Leadership Committee who oversee the daily operations of the Division.

It takes a lot to operate a utility of this magnitude. Many think of the Division in terms of utilities only; however, daily operations include internal auditing, legal counsel, communication of community and external affairs, finance, information services and technology, human resources, engineering, construction, and customer services.

Memphis Light, Gas and Water develops the operating and capital expenditure budgets annually to coincide with its fiscal year. The annual budget considers the needs of the Division's operational units to assist the utility in its mission, *"To safely deliver services that create and sustain superior customer experiences"*. The graph below depicts each operational unit's contribution to the operating and maintenance budget of the utility and is followed by an executive summary of the utility's leadership.

## 2021 Operations & Maintenance Budget by Organization





**J.T. Young, President and Chief Executive Officer**, is responsible for overseeing the day-to-day operations of MLGW. Mr. Young joined MLGW in 2018 and is the 11<sup>th</sup> President to lead the utility. Mr. Young's diverse utility experience includes engineering, customer service, marketing, sales, risk management, information technology, finance and supply chain management. Immediately prior to assuming his responsibilities at MLGW, he served as Gulf Power Company's Customer Service and Marketing General Manager.

Mr. Young holds a bachelor's degree in electrical engineering from the University of Florida, an MBA from the University of West Florida and he is a graduate of Harvard Business School's General Management Program.

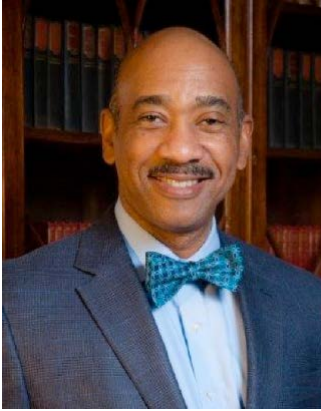
Mr. Young seeks to lead by example and works to set the appropriate expectations across the Division based on MLGW values of safety, integrity, ownership, inclusion and compassionate service. He is also determined to ensure that our employees have access to the full array of resources needed to effectively execute MLGW's mission: ***To safely deliver services that create and sustain superior customer experiences.*** As President and CEO, Young commits to effectively engage with the MLGW Board, as well as other elected officials and key stakeholders across the community. He also commits to the importance of executing key objectives in a manner that promotes safety, ethical behavior, professionalism and efficiency. Safety leadership is the paramount element among the objectives and policies, procedures, programs and plans necessary to encompass the safety prospective. In addition, to build and maintain trust, Senior Leadership must operate with integrity, must be accountable, inclusive and make the best decisions on behalf of the entire Division while demonstrating compassionate service with our employees, our customers and all stakeholders with respect, courtesy and professionalism. By investing in the Division's greatest asset - our employees, MLGW hopes to build on the legacy the Division solidified when it was founded in the Depression Era and to create a dynamic utility company that not only provides reliable service, but also provides great value for MLGW customers.



**Dana Jeanes, Senior Vice-President, Chief Financial Officer and Chief Administrative Officer (Secretary-Treasurer)**, is responsible for establishing, monitoring and maintaining company-wide financial and administrative objectives, policies, programs, and practices for MLGW. Mr. Jeanes joined MLGW in December 1987 and has served as Energy Engineer; Rates Engineer; Supervisor, Rates and Regulatory Affairs; Manager, Budget, Plant and Rates; Director of Analysis, Strategy, and Performance, and Controller. Mr. Jeanes received his Bachelor of Science in electrical engineering from Christian Brothers **University** in 1979 and a Master of Business Administration degree with emphasis on finance and accounting from the University of Memphis in 1994. He is a licensed professional engineer in Tennessee. He is a Certified Public Accountant and a member of the American Institute of Certified Public Accountants. Mr. Jeanes serves in several industry associations. He is a Board members and past Preseident of the Tennessee

Municipal Electric Power Association. He also serves on the Tennessee Valley Public Power Association Government Relations Committee and Rates and Contracts Committee. Mr. Jeanes also serves as a Director on the Board of the Better Business Bureau of the Mid-South.





**Alonzo Weaver III, Senior Vice-President and Chief Operating Officer,**

is responsible for managing and coordinating all engineering functions, facilities operations and loss prevention, electric substations, water pumping stations, gas regulators, and wells. Mr. Weaver joined MLGW in 1983 as an Engineering Assistant in Electric Operations and was promoted to Operations Assistant in that department in 1987. Mr. Weaver later served as Assistant Manager for the North Service Center before being promoted to Manager, Electric Operations in 1992. He was promoted to Vice President, Operations in 1997 and has served in various executive roles since that time. Mr. Weaver graduated from Rensselaer Polytechnic Institute with a B.S. in Mechanical Engineering in 1983 and attended the University of Memphis where he received an MBA in 1997. Mr. Weaver also attended Rhodes College Institute for Executive Leadership and completed the MLGW Executive Development Program in 1988. Mr. Weaver is active in several

industry associations, such as the American Public Power Association, the American Public Gas Association, the American Association of Blacks in Energy, the American Gas Association and the North American Transmission Forum. He serves on the boards of the Southern Gas Association, SERC Reliability Corporation and Junior Achievement.



**Cheryl W. Patterson, Vice-President and General Counsel (Compliance**

**Officer)**, is responsible for advising the Board and MLGW staff concerning all legal obligations and privileges, serves as Chief Ethics Officer for MLGW, and performs other legal services for MLGW. Mrs. Patterson joined MLGW in 2008. Previously, she served as partner in the law firm of Wyatt, Tarrant & Combs, LLP, and was a member of the firm's Financial Institutions & Public Finance Service Teams. Mrs. Patterson has served as bond counsel and underwriter's counsel to municipalities and non-profits. She is a graduate of Wellesley College with a Bachelor of Arts Degree in Political Science and French and a 1984 graduate of Harvard Law School. She is a member of the American, Tennessee and Memphis Bar Associations as well as the National Association of Bond Lawyers. She is licensed to practice law in Tennessee and Pennsylvania. Mrs. Patterson is active in the Tennessee Valley Public Power Association Government Relations Committee

and serves on the boards of several non-profit organizations.



**Roland McElrath, Vice-President of Accounting,**

is responsible for directing MLGW's accounting function and departments engaged in general accounting, customer payments, payroll, and banking activities. Mr. McElrath joined MLGW in August 2012. Mr. McElrath served as the Finance Director for the City of Memphis, from 1996 through 2001 and again from 2005 through 2012. He has also held the position of Associate Superintendent of Business Operations at Memphis City Schools from 2001 through 2003 and was Chief Financial Officer at the Memphis Housing Authority from 2003 through 2005. Mr. McElrath received his bachelor's degree in accounting from the University of Tennessee at Martin in 1982 and earned a Master of Business Administration degree in Finance from the University of Memphis in 1989. He is a Certified Public Accountant and a Certified Municipal Finance Officer.



**Cliff DeBerry, Jr., Vice-President of Design, Construction and Delivery,**

is responsible for managing and coordinating the delivery of construction and maintenance operations at Memphis Light, Gas and Water as well as Residential and Commercial Engineering Design, Lighting Services, and Builder and Developer Services. Mr. DeBerry joined MLGW in 1987 as a Level I Customer Engineer and was promoted to Assistant Manager for the Hickory Hill Service Center in 2000. He later served as Manager of Electric Engineering, Manager of Hickory Hill Service Center, and Director of Analysis, Strategy and Performance before being promoted to his current position. Mr. DeBerry graduated from Christian Brothers College (now CBU) with a B.S. in Electrical Engineering in 1987 and additionally received an MBA in Finance in 1994 from Memphis State University (now University of Memphis). He is a registered Professional Engineer licensed in the state of Tennessee. Mr. DeBerry is a Commissioner for the West

Tennessee Seismic Safety Commission, Board Member for the Mid-South Food Bank, Managing Operating Committee Member for the American Gas Association and an active member of the Engineers Club of Memphis where he served on the Board of Directors. Additionally, Mr. DeBerry has served as President of the American Association of Blacks in Energy and is a member of Alpha Phi Alpha Fraternity. He is a supporter of many community endeavors such as Junior Achievement, the United Way, the MS 150 Bike - A-Thon and Ride for Life.



**Nicholas Newman, Vice-President of Engineering and Operations,**

is responsible for managing and coordinating all engineering and operational divisions for Memphis Light, Gas and Water. Mr. Newman joined MLGW in 1988 as a Service Engineer in the Customer Engineering Department. Mr. Newman previously served as a District Engineer; Supervisor of Engineering and Heavy Equipment; Assistant Manager and Manager of the South Service Center. Additionally, Mr. Newman served as the Project Manager for the Energy Conservation Project at NSA Mid-South. Mr. Newman is a native Memphian and graduate of Frayser High School. Mr. Newman earned his Bachelor of Science in Electrical Engineering and a MBA from the University of Memphis. Mr. Newman holds a Grade 2 Water Distribution License from the State of Tennessee. Mr. Newman is active in the American Water Works Association (AWWA), Tennessee Association of Utility Districts (TAUD) and several other associations. He is on

the board of TAUD where he serves as Vice President and is the Chairperson for the legislative team. He also serves on the Tennessee Water/Wastewater Financing Board.

## MEMPHIS LIGHT GAS AND WATER LEADERSHIP



**Von Goodloe, Vice-President of Shared Services & Acting Vice-President of People Services**, is responsible for managing Corporate Security, Facilities (Central Support Services), Transportation and Supply Operations, Procurement, Contracts and Supplier Diversity and Corporate Safety. Dr. Goodloe joined MLGW in 2010 as Vice President of Human Resources. Dr. Goodloe graduated from Hampton University with a B.A. in Physics in 1983, attended Trevecca Nazarene College in Nashville where he received an MEA degree in 1994, and received an EDS degree in Administration in 2009 from Union University. He also received his doctorate in education from Union University in 2011. Dr. Goodloe has his Senior Professional in Human Resources (SPHR) certification from the Society for Human Resources Management (SHRM) and Certified Labor Relations Professional (CLRP) certification from the National Public Employer Labor Relations Association (NPELRA). He is an active member of the Society for Human Resources Management (SHRM) and the National Public Employer Labor Relations Association (NPELRA). He is an active member of Alpha Phi Alpha fraternity and a supporter of community agencies such as Life Blood, The United Way, and Junior Achievement.



**Lashell Vaughn, Vice-President and Chief Information Officer**, is responsible for information technology and services, data security, client services and enterprise resources support. Mrs. Vaughn joined MLGW in June 2011. Mrs. Vaughn previously held the position of Vice President of Information Technology with Hilton Worldwide. She has more than 35 years of experience in Information Technology, including client management, application development, data center operation, network and telecommunication, and security and compliance. Vaughn received a Master of Science in Computer Science from Christian Brothers University and a Bachelor of Science in Computer Science from Mississippi State University. She serves on the Dean's Advisory Council for the Mississippi State University Bagley College of Engineering and is Chairman of the Board for the Greater Memphis IT Council. She is a member of the Institute of Electronics Engineers, Inc. (IEEE) and the American Society for Engineering Education (ASEE).



**Jim West, Vice-President and Chief Customer Officer**, is responsible for customer service, community offices, energy efficiency, metering & billing, key accounts, and customer advocacy. Mr. West joined MLGW in 2018. Previously he was the Assistant General Manager of Customer and Energy Services at Snohomish County Public Utility District in Everett, Washington where he spent nine years. Prior to joining Snohomish County PUD, Mr. West was Director of Product Management at CURRENT Group, LLC, a smart grid solutions provider based in Washington, D.C. For more than 20 years Mr. West was at the Tennessee Valley Authority in senior positions in customer service, research & technology development, and human resources. Mr. West received an MBA and a B.S. in Economics from the University of Tennessee.



## MEMPHIS LIGHT GAS AND WATER LEADERSHIP



**Gale Jones Carson, Vice-President of Community & External Affairs**, is responsible for Economic & Community Development, Regional External Affairs, local government relations, employee and public communications programs, customer communications, media and community relations, marketing communications, crisis communications, social media, website management, graphic arts, printing, mail services and distribution operations, and the PBX (Private Branch Exchange) telephone operations. Ms. Carson rejoined MLGW in January 2007 as the Director of Corporate Communications after working as Executive Assistant and Chief Spokesperson for the City of Memphis Mayor for almost seven years. Prior to working for the Mayor, she worked in Corporate Communications at FedEx for 16 years. Ms. Carson worked in public relations for MLGW for more than six years prior to joining FedEx. A veteran of public relations, Ms. Carson has more than four decades of journalism/public

relations/crisis communications and community relations experience. She also has experience in economic development. Currently, she is serving as President of the Memphis & Shelby County Film & Tape Commission. Ms. Carson serves as Vice President of the NAACP Memphis Branch's Board of Directors, is a member of the Community Foundation of Greater Memphis Board of Governors, Women's Foundation for a Greater Memphis Board of Directors, and is a member of the IWF/TWF/MWF (International Women's Forum/Tennessee Women's Forum/Memphis Women's Forum). A native of Memphis, Ms. Carson is a graduate of the Leadership Memphis Class of 1998, graduate of New Memphis Leadership and of the University of Memphis where she earned a bachelor's degree in broadcast journalism.



**Lesa Walton, Chief Internal Auditing Officer**, is responsible for the overall operations of Internal Auditing functions to include developing, scheduling, and directing financial, operational, and administrative audit functions. This includes analyzing, reviewing and appraising the adequacy and effectiveness of system technologies and internal control for safeguarding MLGW's funds and assets. Walton joined MLGW in 2001 and has served as an Auditor, Senior Auditor, Supervisor of Management Accounting, General Auditor and most recently as Audit Director. She received her B.S. in Accounting from the University of Arkansas at Little Rock in 1992, and a Master of Professional Accountancy from Jackson State University in 1994. She received her Certified Public Accountant (CPA) designation in 1998. Walton's previous employers include TruGreen Chemlawn, a division of ServiceMaster, Inc., The Kroger Company and United American of Tennessee. She is a member of the American

Institute of Certified Public Accountants (AICPA), Tennessee Society of Certified Public Accountants (TSCPA) and the Institute of Internal Auditors (IIA) where she serves as IIA Memphis Board of Governors. She is a supporter of community agencies such as The United Way, MIFA, and Junior Achievement. Walton is an active member of White Stone Missionary Baptist Church serving as Co-Chairperson of the Trustee Board, Chairperson of the Scholarship Committee and member of the Budget Committee.

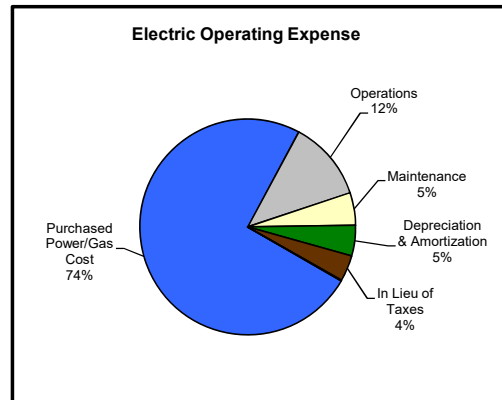


# 2021 MLGW BUDGET HIGHLIGHTS

Page H1

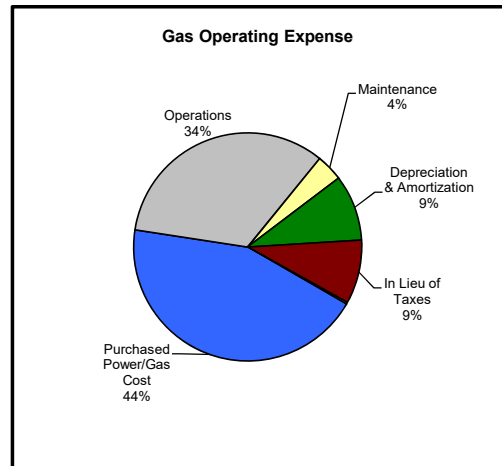
## ELECTRIC DIVISION (In Thousands)

Total Operating Revenue	\$ 1,315,737
Purchased Power	\$ 988,222
Total O&M Expense	\$ 224,182
Other Operating Expense	\$ 113,619
Total Operating Expense	\$ 1,326,023
Operating Income (Loss)	\$ (10,286)
Change in Net Position	\$ 23,893
CAPITAL PROGRAM	\$ 120,181



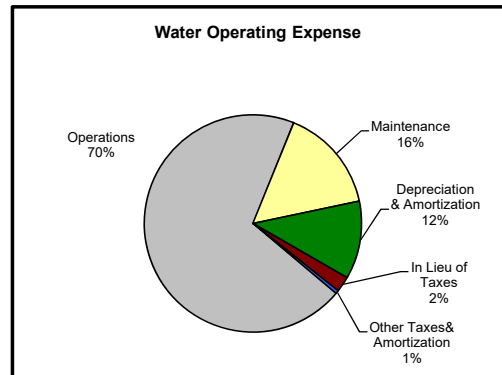
## GAS DIVISION (In Thousands)

Total Operating Revenue	\$ 246,402
Purchased Gas	\$ 111,245
Total O&M Expense	\$ 94,052
Other Operating Expense	\$ 47,133
Total Operating Expense	\$ 252,430
Operating Income (Loss)	\$ (6,028)
Change in Net Position	\$ (9,067)
CAPITAL PROGRAM	\$ 33,651



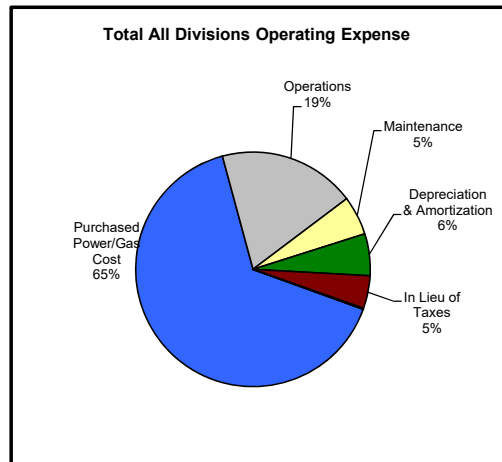
## WATER DIVISION (In Thousands)

Total Operating Revenue	\$ 121,011
Total O&M Expense	\$ 91,370
Other Operating Expense	\$ 15,382
Total Operating Expense	\$ 106,752
Operating Income (Loss)	\$ 14,259
Change in Net Position	\$ 11,618
CAPITAL PROGRAM	\$ 35,636



## ALL DIVISIONS (In Thousands)

TOTAL OPERATING REVENUE	\$ 1,683,150
TOTAL PURCHASED POWER & GAS	\$ 1,099,467
TOTAL O&M EXPENSE	\$ 409,604
TOTAL OTHER OPERATING EXPENSE	\$ 176,134
TOTAL OPERATING EXPENSE	\$ 1,685,205
OPERATING INCOME	\$ (2,055)
CHANGE IN NET POSITION	\$ 26,444
TOTAL CAPITAL PROGRAM	\$ 189,468





# ALL DIVISIONS

MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
FOR CALENDAR YEAR OF 2021

ALL DIVISIONS

PAGE 2

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b><u>OPERATING REVENUE</u></b>				
Sales Revenue	1,292,288	221,914	116,477	1,630,679
Revenue Adjustment for Uncollectibles	(4,321)	(999)	(902)	(6,222)
Non-Sales Revenue	27,770	25,487	5,436	58,693
<b>OPERATING REVENUE</b>	<b>1,315,737</b>	<b>246,402</b>	<b>121,011</b>	<b>1,683,150</b>
<b><u>OPERATING EXPENSE</u></b>				
Purchased Power	988,222	-	-	988,222
Purchased Gas	-	110,117	-	110,117
Compressed Natural Gas (CNG)	-	12	-	12
Liquefied Natural Gas (LNG)	-	1,116	-	1,116
Production Expense	-	1,342	14,583	15,925
Transmission Expense	8,080	-	-	8,080
Distribution Expense	43,477	27,702	15,908	87,087
Customer Accounts Expense	16,832	11,574	8,128	36,534
Customer Service & Information Expense	1,951	1,654	988	4,593
Sales Expense	2,061	413	321	2,795
Administrative & General Expense	86,957	41,840	34,815	163,612
<b>OPERATING EXPENSE</b>	<b>1,147,580</b>	<b>195,770</b>	<b>74,743</b>	<b>1,418,093</b>
<b><u>MAINTENANCE EXPENSE</u></b>				
Transmission Expense	4,122	-	-	4,122
Production Expense	-	411	3,590	4,001
Distribution Expense	55,855	7,636	9,406	72,897
Administrative & General Expense	4,847	1,480	3,631	9,958
<b>MAINTENANCE EXPENSE</b>	<b>64,824</b>	<b>9,527</b>	<b>16,627</b>	<b>90,978</b>
<b><u>OTHER OPERATING EXPENSE</u></b>				
Depreciation Expense	57,921	18,273	11,904	88,098
Payment in Lieu of Taxes	51,136	22,780	2,500	76,416
F.I.C.A. Taxes	1,722	658	485	2,865
Amortization of SCBPU Acquisition Adjustments	-	-	-	-
Amortization of Legacy Meters	1,303	1,483	493	3,279
Amortization of Software	1,537	3,939	-	5,476
<b>OTHER OPERATING EXPENSE</b>	<b>113,619</b>	<b>47,133</b>	<b>15,382</b>	<b>176,134</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>1,326,023</b>	<b>252,430</b>	<b>106,752</b>	<b>1,685,205</b>
<b><u>INCOME</u></b>				
Operating Income	(10,286)	(6,028)	14,259	(2,055)
Other Income	43,234	1,028	1,055	45,317
Reduction of Plant Cost Recovered through CIAC	(18,118)	(3,954)	(4,604)	(26,676)
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>14,830</b>	<b>(8,954)</b>	<b>10,710</b>	<b>16,586</b>
<b><u>DEBT EXPENSE</u></b>				
Interest Expense - Long Term Debt	12,765	5,750	4,749	23,264
Amortization of Debt Discount & Expense	(3,710)	(1,683)	(1,053)	(6,446)
<b>TOTAL DEBT EXPENSE</b>	<b>9,055</b>	<b>4,067</b>	<b>3,696</b>	<b>16,818</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>5,775</b>	<b>(13,021)</b>	<b>7,014</b>	<b>(232)</b>
Contributions in Aid of Construction	18,118	3,954	4,604	26,676
<b>CHANGE IN NET POSITION</b>	<b>23,893</b>	<b>(9,067)</b>	<b>11,618</b>	<b>26,444</b>

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
FOR CALENDAR YEAR OF 2021**

ALL DIVISIONS

PAGE 2a

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b><u>OPERATING REVENUE</u></b>				
Sales Revenue	1,292,288	221,914	116,477	1,630,679
Revenue Adjustment for Uncollectibles	(4,321)	(999)	(902)	(6,222)
<b>Non-Sales Revenue</b>				
Forfeited Discounts	11,822	3,107	1,524	16,453
Miscellaneous Service Revenue	9,000	2,304	1,992	13,296
Cross Connection Revenue	-	-	1,380	1,380
Other Operating Revenue	1,428	552	396	2,376
Compressed Natural Gas (CNG)	-	24	-	24
Liquefied Natural Gas (LNG)	-	2,628	-	2,628
Rent from Electric/Gas/Water Property	5,520	6,000	144	11,664
Transported Gas	-	10,872	-	10,872
<b>Total Non-Sales Revenue</b>	<b>27,770</b>	<b>25,487</b>	<b>5,436</b>	<b>58,693</b>
<b>OPERATING REVENUE</b>	<b>1,315,737</b>	<b>246,402</b>	<b>121,011</b>	<b>1,683,150</b>
<b><u>OPERATING EXPENSE</u></b>				
Purchased Power	988,222	-	-	988,222
Purchased Gas	-	110,117	-	110,117
Compressed Natural Gas (CNG)	-	12	-	12
Liquified Natural Gas (LNG)	-	1,116	-	1,116
<b>Production Expense</b>				
Chemicals	-	-	1,100	1,100
Fuel or Power Purchased for Pumping	-	-	7,300	7,300
Miscellaneous Expense	-	-	2,988	2,988
Operations Production Water Treatment	-	-	55	55
Operation Labor and Expenses	-	1,202	2,603	3,805
Operation Supervision and Engineering	-	140	231	371
Pumping Labor and Expenses	-	-	306	306
<b>Total Production Expense</b>	<b>-</b>	<b>1,342</b>	<b>14,583</b>	<b>15,925</b>
<b>Transmission Expense</b>				
Load Dispatching	1,119	-	-	1,119
Miscellaneous Transmission Expenses	1,435	-	-	1,435
Operation Supervision and Engineering	5,132	-	-	5,132
Station Expenses	394	-	-	394
Underground Transmission Line Expenses	-	-	-	-
<b>Total Transmission Expense</b>	<b>8,080</b>	<b>-</b>	<b>-</b>	<b>8,080</b>
<b>Distribution Expense</b>				
Customer Installation Expenses	-	5,068	3,014	8,082
Distribution Load Dispatching Expense	1,119	763	-	1,882
Mains and Services	-	4,950	-	4,950
Measuring and Regulating Expenses	-	79	-	79
Meter and House Regulator Expenses	987	3,422	1,346	5,755
Miscellaneous Distribution Expenses <sup>(1)</sup>	23,103	9,828	8,921	41,852
Operation Supervision and Engineering	3,911	3,576	2,185	9,672
Overhead Distribution Line Expense	5,295	-	-	5,295
Rents	-	16	2	18
Services on Customers' Premises	4,979	-	-	4,979
Station Expenses	1,501	-	-	1,501
Storage Facilities	-	-	104	104
Street Lighting and Signal System Expenses	722	-	-	722
Transmission and Distribution Lines	-	-	336	336
UG Distribution	1,860	-	-	1,860
<b>Total Distribution Expense</b>	<b>43,477</b>	<b>27,702</b>	<b>15,908</b>	<b>87,087</b>

<sup>(1)</sup> Includes, but not limited to, the following items: Accrued vacation, absences such as holiday and sick leave, lost time due to bad weather, stand-by pay, and contract services.



**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**FOR CALENDAR YEAR OF 2021**

ALL DIVISIONS

PAGE 2b

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b><u>OPERATING EXPENSE (Continued)</u></b>				
<b>Customer Accounts Expense</b>				
Customer Order, Records and Collection Expenses	15,672	9,985	6,943	32,600
Meter Reading Expenses	1,009	1,457	1,056	3,522
Supervision-Customer Accounting and Collection	151	132	129	412
<b>Total Customer Accounts Expense</b>	<b>16,832</b>	<b>11,574</b>	<b>8,128</b>	<b>36,534</b>
<b>Customer Service &amp; Information Expense</b>				
Customer Assistance Expenses	995	670	500	2,165
Informational and Instructional Advertising Expenses	174	58	239	471
Miscellaneous Customer Service & Informational Expenses	483	675	-	1,158
Supervision-Customer Service and Information	299	251	249	799
<b>Total Customer Service &amp; Information Expense</b>	<b>1,951</b>	<b>1,654</b>	<b>988</b>	<b>4,593</b>
<b>Sales Expense</b>				
Miscellaneous Sales Expenses	2,061	413	321	2,795
<b>Total Sales Expense</b>	<b>2,061</b>	<b>413</b>	<b>321</b>	<b>2,795</b>
<b>Administrative &amp; General Expense</b>				
Administrative and General Salaries	17,173	6,950	4,825	28,948
Administration Expenses Transferred to Capital	(6,680)	(1,298)	(1,621)	(9,599)
Pension Expense	13,301	5,562	4,111	22,974
Other Active & Retiree Benefits	22,391	12,293	8,827	43,511
Other Post Employment Benefits Funding	2,487	1,040	769	4,296
Injuries and Damages	2,780	1,769	1,513	6,062
Miscellaneous General Expenses <sup>(2)</sup>	9,833	3,919	3,654	17,406
Office Supplies and Expenses	5,628	2,135	1,745	9,508
Outside Services Employed	14,292	5,471	6,907	26,670
Property Insurance	1,614	826	592	3,032
Rents-Miscellaneous	4,138	3,173	3,493	10,804
<b>Total Administrative &amp; General Expense</b>	<b>86,957</b>	<b>41,840</b>	<b>34,815</b>	<b>163,612</b>
<b>OPERATING EXPENSE</b>	<b>1,147,580</b>	<b>195,770</b>	<b>74,743</b>	<b>1,418,093</b>
<b><u>MAINTENANCE EXPENSE</u></b>				
<b>Transmission Expense</b>				
Maintenance of Overhead Transmission Lines	1	-	-	1
Maintenance of Station Equipment	1,320	-	-	1,320
Maintenance of Underground Transmission Lines	697	-	-	697
Maintenance of Structures and Improvements	73	-	-	73
Maintenance Supervision and Engineering	2,031	-	-	2,031
<b>Total Transmission Expense</b>	<b>4,122</b>	<b>-</b>	<b>-</b>	<b>4,122</b>
<b>Production Expense</b>				
Maintenance of Other Equipment	-	104	-	104
Maintenance of Pumping Equipment	-	-	875	875
Maintenance of Structures and Improvements	-	85	-	85
Maintenance of Water Treatment Equipment	-	-	1,570	1,570
Maintenance of Wells	-	-	1,036	1,036
Maintenance Supervision and Engineering	-	222	109	331
<b>Total Production Expense</b>	<b>-</b>	<b>411</b>	<b>3,590</b>	<b>4,001</b>

<sup>(2)</sup> Includes, but not limited to, the following items: Mail distribution, property appraisals, security and janitorial services, and fuel use by MLGW.

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**FOR CALENDAR YEAR OF 2021**

ALL DIVISIONS

PAGE 2c

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b><u>MAINTENANCE EXPENSE (Continued)</u></b>				
<b>Distribution Expense</b>				
Maintenance of Hydrants	-	-	537	537
Maintenance of Line Transformers	2,133	-	-	2,133
Maintenance of Mains	-	4,623	-	4,623
Maintenance of Meters	2,009	296	3,460	5,765
Maintenance of Miscellaneous Distribution Plant	639	-	42	681
Maintenance of Overhead Distribution Lines	32,495	-	-	32,495
Maintenance of Services	-	1,162	1,447	2,609
Maintenance of Station Equipment	1,096	-	-	1,096
Maintenance of Street Lighting and Signal System	5,725	-	-	5,725
Maintenance of Gas Distribution Facilities	-	-	-	-
Maintenance of Transmission and Distribution Mains	-	-	3,920	3,920
Maintenance of Underground Distribution Lines	8,761	-	-	8,761
Maintenance Supervision and Engineering	2,997	85	-	3,082
Measuring and Regulating Equipment Expenses	-	1,470	-	1,470
<b>Total Distribution Expense</b>	<b>55,855</b>	<b>7,636</b>	<b>9,406</b>	<b>72,897</b>
<b>Administrative &amp; General Expense</b>				
Maintenance of General Plant	4,521	1,322	3,631	9,474
Facilities Maintenance Expense	326	158	-	484
<b>Total Administrative &amp; General Expense</b>	<b>4,847</b>	<b>1,480</b>	<b>3,631</b>	<b>9,958</b>
<b>MAINTENANCE EXPENSE</b>	<b>64,824</b>	<b>9,527</b>	<b>16,627</b>	<b>90,978</b>
<b><u>OTHER OPERATING EXPENSE</u></b>				
Depreciation Expense	57,921	18,273	11,904	88,098
Payment in Lieu of Taxes	51,136	22,780	2,500	76,416
F.I.C.A. Taxes	1,722	658	485	2,865
Amortization of Legacy Meters	1,303	1,483	493	3,279
Amortization of Software	1,537	3,939	-	5,476
<b>OTHER OPERATING EXPENSE</b>	<b>113,619</b>	<b>47,133</b>	<b>15,382</b>	<b>176,134</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>1,326,023</b>	<b>252,430</b>	<b>106,752</b>	<b>1,685,205</b>
<b><u>INCOME</u></b>				
Operating Income	(10,286)	(6,028)	14,259	(2,055)
<b>Other Income</b>				
Expenses of Merchandising, Jobbing & Contracts	-	(2,521)	-	(2,521)
Revenues from Merchandising, Jobbing & Contracts	-	1,302	-	1,302
Revenues from Non-Utility Property	-	-	-	-
Revenues from Common Transportation Equipment	-	-	-	-
Revenues from Sinking & Other Funds-Interest Income	5,000	2,000	501	7,501
Medicare Part D Refund	313	158	92	563
Non-Operating Income - TVA Transmission Credit	36,000	-	-	36,000
Miscellaneous Non-Operating Income	1,921	89	462	2,472
<b>Total Other Income</b>	<b>43,234</b>	<b>1,028</b>	<b>1,055</b>	<b>45,317</b>
<b>Contributions in Aid of Construction</b>	<b>(18,118)</b>	<b>(3,954)</b>	<b>(4,604)</b>	<b>(26,676)</b>
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>14,830</b>	<b>(8,954)</b>	<b>10,710</b>	<b>16,586</b>

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**FOR CALENDAR YEAR OF 2021**

ALL DIVISIONS

PAGE 2d

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b>DEBT EXPENSE</b>				
<b>Interest Expense - Long-Term Debt</b>				
Interest on Ltd - Series 2014	1,389	-	464	1,853
Interest on Ltd - Series 2016	1,565	1,565	793	3,923
Interest on Ltd - Series 2017	3,433	1,663	863	5,959
Interest on Ltd - Series 2020	6,378	2,522	2,629	11,529
<b>Total Interest Expense - Long-Term Debt</b>	<b>12,765</b>	<b>5,750</b>	<b>4,749</b>	<b>23,264</b>
<b>Amortization of Debt Discount &amp; Expense</b>				
Amortization of Debt Disc & Exp - Series 2014	(645)	-	(49)	(694)
Amortization of Debt Disc & Exp - Series 2016	(618)	(561)	(163)	(1,342)
Amortization of Debt Disc & Exp - Series 2017	(966)	(485)	(183)	(1,634)
Amortization of Debt Disc & Exp - Series 2020	(1,481)	(637)	(658)	(2,776)
<b>Total Amortization of Debt Discount &amp; Expense</b>	<b>(3,710)</b>	<b>(1,683)</b>	<b>(1,053)</b>	<b>(6,446)</b>
<b>TOTAL DEBT EXPENSE</b>	<b>9,055</b>	<b>4,067</b>	<b>3,696</b>	<b>16,818</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>5,775</b>	<b>(13,021)</b>	<b>7,014</b>	<b>(232)</b>
Contributions in Aid of Construction	18,118	3,954	4,604	26,676
<b>CHANGE IN NET POSITION</b>	<b>23,893</b>	<b>(9,067)</b>	<b>11,618</b>	<b>26,444</b>

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES  
FOR CALENDAR YEAR OF 2021

ALL DIVISIONS

PAGE 3

DESCRIPTION	THOUSANDS OF DOLLARS				REF. NO.
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL	
TOTAL 2021 CAPITAL EXPENDITURES					3-1
	120,181	33,651	35,636	189,468	



# ELECTRIC DIVISION



MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
2019 THROUGH 2021

ELECTRIC DIVISION

PAGE 4

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2019 ACTUAL	2020 BUDGET	2021 BUDGET	
<b><u>OPERATING REVENUE</u></b>				
Sales Revenue	1,263,664	1,281,715	1,292,288	4-1
Revenue Adjustment for Uncollectibles	(4,114)	(4,539)	(4,321)	4-2
Non-Sales Revenue	26,426	28,534	27,770	4-3
<b>OPERATING REVENUE</b>	<b>1,285,976</b>	<b>1,305,710</b>	<b>1,315,737</b>	
<b><u>OPERATING EXPENSE</u></b>				
Purchased Power	1,036,442	1,023,188	988,222	4-4
Transmission Expense	6,610	8,052	8,080	4-5
Distribution Expense	36,220	45,358	43,477	4-6
Customer Accounts Expense	14,929	15,999	16,832	4-7
Customer Service & Information Expense	1,712	1,763	1,951	4-8
Sales Expense	1,383	1,981	2,061	4-9
Administrative & General Expense	74,437	86,355	86,957	4-10
<b>OPERATING EXPENSE</b>	<b>1,171,733</b>	<b>1,182,696</b>	<b>1,147,580</b>	
<b><u>MAINTENANCE EXPENSE</u></b>				
Transmission Expense	2,615	3,118	4,122	4-11
Distribution Expense	43,149	56,580	55,855	4-12
Administrative & General Expense	2,982	4,772	4,847	4-13
<b>MAINTENANCE EXPENSE</b>	<b>48,746</b>	<b>64,470</b>	<b>64,824</b>	
<b><u>OTHER OPERATING EXPENSE</u></b>				
Depreciation Expense	54,584	56,545	57,921	4-14
Payment in Lieu of Taxes	44,904	48,113	51,136	4-15
F.I.C.A. Taxes	1,655	1,781	1,722	4-16
Amortization of Legacy Meters	807	2,809	1,303	4-17
Amortization of Software	1,208	1,524	1,537	4-18
<b>OTHER OPERATING EXPENSE</b>	<b>103,158</b>	<b>110,772</b>	<b>113,619</b>	
<b>TOTAL OPERATING EXPENSE</b>	<b>1,323,637</b>	<b>1,357,938</b>	<b>1,326,023</b>	
<b><u>INCOME</u></b>				
Operating Income	(37,661)	(52,228)	(10,286)	4-19
Other Income	43,527	39,968	43,234	4-20
Reduction of Plant Cost Recovered through CIAC	(17,243)	(28,006)	(18,118)	4-21
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>(11,377)</b>	<b>(40,266)</b>	<b>14,830</b>	
<b><u>DEBT EXPENSE</u></b>				
Interest Expense - Existing Long-Term Debt	8,165	12,704	12,765	4-22
Amortization of Debt Discount & Expense	(2,184)	(2,135)	(3,710)	4-23
<b>TOTAL DEBT EXPENSE</b>	<b>5,981</b>	<b>10,569</b>	<b>9,055</b>	
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>(17,358)</b>	<b>(50,835)</b>	<b>5,775</b>	
Contributions in Aid of Construction	17,243	28,006	18,118	4-24
<b>CHANGE IN NET POSITION*</b>	<b>(115)</b>	<b>(22,829)</b>	<b>23,893</b>	
* Excludes Pension Non-Cash and Other Post Employment Benefits Non-Cash				

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**ELECTRIC DIVISION**

**PAGE 4a**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>OPERATING REVENUE</u></b>			
<b>Sales Revenue</b>	<b>1,281,715</b>	<b>1,292,288</b>	<b>10,573</b>
<b>Revenue Adjustment for Uncollectibles</b>	<b>(4,539)</b>	<b>(4,321)</b>	<b>218</b>
<b>Non-Sales Revenue</b>			
Forfeited Discounts	12,108	11,822	(286)
Miscellaneous Service Revenue	9,000	9,000	0
Other Operating Revenue	1,368	1,428	60
Rent from Gas/Water Property	6,058	5,520	(538)
<b>Total Non-Sales Revenue</b>	<b>28,534</b>	<b>27,770</b>	<b>(764)</b>
<b>OPERATING REVENUE</b>	<b>1,305,710</b>	<b>1,315,737</b>	<b>10,027</b>
<b><u>OPERATING EXPENSE</u></b>			
<b>Purchased Power</b>	<b>1,023,188</b>	<b>988,222</b>	<b>(34,966)</b>
<b>Transmission Expense</b>			
Load Dispatching	1,092	1,119	27
Miscellaneous Transmission Expenses	1,333	1,435	102
Operation Supervision and Engineering	5,227	5,132	(95)
Overhead Transmission Line Expenses	-	-	-
Station Expenses	400	394	(6)
Underground Transmission Line Expenses	-	-	-
<b>Total Transmission Expense</b>	<b>8,052</b>	<b>8,080</b>	<b>28</b>
<b>Distribution Expense</b>			
Distribution Load Dispatching Expense	1,092	1,119	27
Meter Expenses	1,122	987	(135)
Miscellaneous Distribution Expenses <sup>(1)</sup>	25,610	23,103	(2,507)
Operation Supervision and Engineering	4,323	3,911	(412)
Overhead Distribution Line Expense	4,859	5,295	436
Services on Customers' Premises	4,947	4,979	32
Station Expenses	1,513	1,501	(12)
Street Lighting and Signal System Expenses	488	722	234
Underground Distribution Line Expenses	1,404	1,860	456
<b>Total Distribution Expense</b>	<b>45,358</b>	<b>43,477</b>	<b>(1,881)</b>
<b>Customer Accounts Expense</b>			
Customer Order, Records and Collection Expenses	14,743	15,672	929
Meter Reading Expenses	1,125	1,009	(116)
Supervision-Customer Accounting and Collection	131	151	20
<b>Total Customer Accounts Expense</b>	<b>15,999</b>	<b>16,832</b>	<b>833</b>
<b>Customer Service &amp; Information Expense</b>			
Customer Assistance Expenses	894	995	101
Informational and Instructional Advertising Expenses	157	174	17
Miscellaneous Customer Service & Information Expense	440	483	43
Supervision-Customer Service and Information	272	299	27
<b>Total Customer Service &amp; Information Expense</b>	<b>1,763</b>	<b>1,951</b>	<b>188</b>
<b>Sales Expense</b>			
Miscellaneous Sales Expenses	1,981	2,061	80
<b>Total Sales Expense</b>	<b>1,981</b>	<b>2,061</b>	<b>80</b>

<sup>(1)</sup> Includes, but not limited to, the following items: Accrued vacation, absences such as holiday and sick leave, lost time due to bad weather, stand-by pay, and contract services.

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**ELECTRIC DIVISION**

**PAGE 4b**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>OPERATING EXPENSE (Continued)</u></b>			
<b>Administrative &amp; General Expense</b>			
Administrative and General Salaries	15,849	17,173	1,324
Administration Expenses Transferred to Capital	(6,100)	(6,680)	(580)
Pension Expense	14,700	13,301	(1,399)
Other Active & Retiree Benefits	24,217	22,391	(1,826)
Other Post Employment Benefits Funding	2,743	2,487	(256)
Injuries and Damages	2,760	2,780	20
Miscellaneous General Expenses <sup>(2)</sup>	8,409	9,833	1,424
Office Supplies and Expenses	5,075	5,628	553
Outside Services Employed	9,383	14,292	4,909
Property Insurance	1,201	1,614	413
Rents-Miscellaneous	8,118	4,138	(3,980)
<b>Total Administrative &amp; General Expense</b>	<b>86,355</b>	<b>86,957</b>	<b>602</b>
 <b>OPERATING EXPENSE</b>	 <b>1,182,696</b>	 <b>1,147,580</b>	 <b>(35,116)</b>
<b><u>MAINTENANCE EXPENSE</u></b>			
<b>Transmission Expense</b>			
Maintenance of Overhead Transmission Lines	4	1	(3)
Maintenance of Station Equipment	1,354	1,320	(34)
Maintenance of Underground Transmission Lines	722	697	(25)
Maintenance of Structures and Improvements	145	73	(72)
Maintenance Supervision and Engineering	893	2,031	1,138
<b>Total Transmission Expense</b>	<b>3,118</b>	<b>4,122</b>	<b>1,004</b>
<b>Distribution Expense</b>			
Maintenance of Line Transformers	2,139	2,133	(6)
Maintenance of Meters	2,388	2,009	(379)
Maintenance of Miscellaneous Distribution Plant	624	639	15
Maintenance of Overhead Distribution Lines	30,697	32,495	1,798
Maintenance of Station Equipment	2,020	1,096	(924)
Maintenance of Street Lighting and Signal System	5,368	5,725	357
Maintenance of Underground Distribution Lines	10,526	8,761	(1,765)
Maintenance Supervision and Engineering	2,818	2,997	179
<b>Total Distribution Expense</b>	<b>56,580</b>	<b>55,855</b>	<b>(725)</b>
<b>Administrative &amp; General Expense</b>			
Maintenance of General Plant	4,454	4,521	67
Facilities Maintenance Expense	318	326	8
<b>Total Administrative &amp; General Expense</b>	<b>4,772</b>	<b>4,847</b>	<b>75</b>
 <b>MAINTENANCE EXPENSE</b>	 <b>64,470</b>	 <b>64,824</b>	 <b>354</b>

<sup>(2)</sup> Includes, but not limited to, the following items: Mail distribution, property appraisals, security and janitorial services, and fuel use by MLGW.

MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
2020 THROUGH 2021

ELECTRIC DIVISION

PAGE 4c

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>OTHER OPERATING EXPENSE</u></b>			
Depreciation Expense	56,545	57,921	1,376
Payment in Lieu of Taxes	48,113	51,136	3,023
F.I.C.A. Taxes	1,781	1,722	(59)
Amortization of Legacy Meters	2,809	1,303	(1,506)
Amortization of Software	1,524	1,537	13
<b>OTHER OPERATING EXPENSE</b>	<b>110,772</b>	<b>113,619</b>	<b>2,847</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>1,357,938</b>	<b>1,326,023</b>	<b>(31,915)</b>
<b><u>INCOME</u></b>			
Operating Income	(52,228)	(10,286)	41,942
Other Income			
Revenues from Sinking & Other Funds - Interest Income	2,100	5,000	2,900
Medicare Part D Refund	380	313	(67)
Non-Operating Income - TVA Transmission Credit	35,118	36,000	882
Miscellaneous Non-Operating Income	2,370	1,921	(449)
<b>Total Other Income</b>	<b>39,968</b>	<b>43,234</b>	<b>3,266</b>
Reduction of Plant Cost Recovered through CIAC	(28,006)	(18,118)	9,888
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>(40,266)</b>	<b>14,830</b>	<b>55,096</b>
<b><u>DEBT EXPENSE</u></b>			
Interest Expense - Long-Term Debt			
Interest on Ltd - Series 2014	2,695	1,389	(1,306)
Interest on Ltd - Series 2016	1,623	1,565	(58)
Interest on Ltd - Series 2017	3,586	3,433	(153)
Interest on Ltd - Series 2020	4,800	6,378	1,578
<b>Total Interest Expense - Long-Term Debt</b>	<b>12,704</b>	<b>12,765</b>	<b>(1,517)</b>
Amortization of Debt Discount & Expense			
Amortization of Debt Disc & Exp - Series 2014	(635)	(645)	(10)
Amortization of Debt Disc & Exp - Series 2016	(588)	(618)	(30)
Amortization of Debt Disc & Exp - Series 2017	(912)	(966)	(54)
Amortization of Debt Disc & Exp - Series 2020	-	(1,481)	(1,481)
<b>Total Amortization of Debt Discount &amp; Expense</b>	<b>(2,135)</b>	<b>(3,710)</b>	<b>(1,575)</b>
<b>TOTAL DEBT EXPENSE</b>	<b>10,569</b>	<b>9,055</b>	<b>(1,514)</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>(50,835)</b>	<b>5,775</b>	<b>56,610</b>
Contributions in Aid of Construction	28,006	18,118	(9,888)
<b>CHANGE IN NET POSITION</b>	<b>(22,829)</b>	<b>23,893</b>	<b>46,722</b>

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SOURCE AND APPLICATION OF FUNDS  
2021 BUDGET  
(THOUSANDS OF DOLLARS)

ELECTRIC DIVISION

PAGE 5

		REF. NO.
<b><u>SOURCE OF FUNDS:</u></b>		
<b>FROM OPERATIONS:</b>		
Change in Net Position	23,893	5-1
Non-Cash Charges to Income:		
Depreciation Charged to Operating Income	57,921	5-2
Depreciation Charged to Other Accounts	1,343	5-3
Amortization of Legacy Meters	1,303	5-4
Amortization of Software	1,537	5-5
<b>TOTAL FUNDS FROM OPERATIONS</b>	<b>85,997</b>	
Salvage	1,406	5-6
Financing: 2020 Bond Issuance	57,566	5-7
<b>TOTAL FUNDS AVAILABLE</b>	<b>144,969</b>	
<b><u>APPLICATION OF FUNDS:</u></b>		
Capital Expenditures	120,181	5-8
Costs of Removal and Other Charges to the Reserve for Depreciation	13,073	5-9
Retirement of Long-Term Debt	11,715	5-10
<b>TOTAL APPLICATION OF FUNDS</b>	<b>144,969</b>	
<b>INCREASE (DECREASE) IN WORKING CAPITAL</b>	<b>(0)</b>	



MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES COMPARISON  
FOR CALENDAR YEAR OF 2021

ELECTRIC DIVISION

PAGE 6

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2019 ACTUAL	2020 BUDGET	2021 BUDGET	
<b>JOB ORDERS</b>				
ELEC - POLE-DUCT USE AND ESCORTS	29	-	-	6-1
<b>TOTAL - JOB ORDERS</b>	<b>29</b>	<b>-</b>	<b>-</b>	
<b>SUBSTATION AND TRANSMISSION</b>				
ELEC - SUBSTATION	10,404	12,160	12,794	6-2
ELEC - SUBSTATION TRANSFORMERS REPLACEMENT	2,879	8,500	12,034	6-3
ELEC - SUBSTATION CIRCUIT BREAKERS REPLACEMENT	18	2,600	3,442	6-4
ELEC - TRANSMISSION LINES	1,321	3,140	2,910	6-5
CONTRIBUTION IN AID OF CONSTRUCTION - CIAC	(6,900)	-	-	6-6
<b>TOTAL - SUBSTATION AND TRANSMISSION</b>	<b>7,722</b>	<b>26,400</b>	<b>31,180</b>	
<b>DISTRIBUTION SYSTEM</b>				
ELEC - RESIDENTIAL SERVICE IN S/D	109	70	175	6-7
ELEC - RESIDENTIAL SERVICE NOT IN S/D	1,127	1,431	1,307	6-8
ELEC - RESIDENTIAL S/D	94	126	69	6-9
ELEC - APARTMENTS	623	710	754	6-10
ELEC - GENERAL POWER SERVICE	3,306	12,901	8,614	6-11
ELEC - GENERAL POWER S/D	12	8	392	6-12
ELEC - MOBILE HOME PARK	40	27	2	6-13
ELEC - TEMPORARY SERVICE	200	562	621	6-14
ELEC - MULTIPLE-UNIT GENERAL POWER	213	305	72	6-15
ELEC - RELOCATE AT CUSTOMER REQUEST	1,307	5,917	3,700	6-16
ELEC - STREET IMPROVEMENTS	676	8,876	8,248	6-17
ELEC - NEW CIRCUITS	3,936	4,675	4,475	6-18
ELEC - VOLTAGE CONVERSION	-	20	-	6-19
ELEC - LINE RECONSTRUCTION/REMOVE IDLE FACILITIES	1,981	3,675	3,625	6-20
ELEC - DEFECT CABLE/FEDER CABLE REPLACEMENT	1,964	6,800	11,800	6-21
ELEC - DISTRIBUTION POLES	-	3,000	3,000	6-22
ELEC - DISTRIBUTION AUTOMATION	-	6,000	10,000	6-23
ELEC - STREET LIGHTS INSTALL	1,529	10,100	5,330	6-24
ELEC - DEMOLITION	54	-	70	6-25
ELEC - STREET LIGHT MAINTENANCE	1,680	2,040	2,081	6-26
ELEC - PLANNED MAINTENANCE	9,145	9,486	9,676	6-27
ELEC - TREE TRIMMING	-	5	10	6-28
ELEC - OPERATIONS MAINTENANCE	114	-	-	6-29
ELEC - LEASED OUTDOOR LIGHTING	376	443	859	6-30
ELEC - SHARED USE CONTRACT	-	1,000	500	6-31
ELEC - STORM RESTORATION	8,206	-	-	6-32
ELEC - DUCT LINE LEASE	-	-	75	6-33
ELEC - EMERGENCY MAINTENANCE	5,780	5,857	5,958	6-34
JT - RESIDENTIAL SERVICE IN S/D	548	583	967	6-35
JT - RESIDENTIAL SERVICE NOT IN S/D	3	5	3	6-36
JT - RESIDENTIAL S/D	1,974	2,227	1,884	6-37
JT - APARTMENTS	16	40	53	6-38
PCI - CAPACITOR BANKS	-	575	250	6-39
PCI - DIST TRANSFORMERS	3,793	6,034	6,155	6-40
ELEC- METERS	3,863	984	2,118	6-41
CONTRIBUTION IN AID OF CONSTRUCTION - CIAC	(9,806)	(28,006)	(18,118)	6-42
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>42,863</b>	<b>66,476</b>	<b>74,725</b>	
<b>GENERAL PLANT</b>				
ELEC - BUILDINGS & STRUCTURES	1,023	779	1,065	6-43
ELEC - SECURITY AUTOMATION	1,955	4,403	4,349	6-44
ELEC - LAND PURCHASE	-	1,200	1,200	6-45
ELEC - FLEET CAPITAL POWER OPERATED EQUIPMENT	3,910	2,009	2,916	6-46
ELEC - TRANSPORTATION EQUIPMENT	561	2,633	2,939	6-47
ELEC - TOOLS & EQUIPMENT	(145)	31	-	6-48
ELEC - LAB & TEST	144	268	217	6-49
ELEC - COMMUNICATION EQUIPMENT	67	79	95	6-50
ELEC - COMMUNICATION TOWERS	-	14,119	14,003	6-51
ELEC - TELECOMMUNICATION NETWORK	1,045	3,223	2,834	6-52
ELEC - UTILITY MONITORING	615	1,275	908	6-53
ELEC - CIS DEVELOPMENT	1,266	7,994	-	6-54
ELEC - BUSINESS CONTINUITY	321	3,122	1,989	6-55
ELEC - DATA PROCESSING EQUIPMENT	150	2,556	7,127	6-56
ELEC - IS/IT PROJECTS	217	-	4,480	6-57
ELEC - CONTINGENCY FUND	-	200	200	6-58
<b>TOTAL - GENERAL PLANT</b>	<b>11,129</b>	<b>43,891</b>	<b>44,322</b>	
<b>TOTAL - ELECTRIC DIVISION</b>	<b>61,743</b>	<b>136,767</b>	<b>150,227</b>	
Delayed Cost Allocations	1,799	(26,793)	(30,046)	6-59
<b>TOTAL - ELECTRIC DIVISION</b>	<b>63,542</b>	<b>109,974</b>	<b>120,181</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

ELECTRIC DIVISION

PAGE 7

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>SUBSTATION &amp; TRANSMISSION MAJOR PROJECTS</u></b>		
<b><u>SUBSTATION</u></b>		
Purchase Mobile Substation for Contingencies & Maintenance	3,100,000	7-1
Replace RTU's various locations	1,800,000	7-2
Replace capacitor banks various locations	1,753,424	7-3
Replace relays various locations	1,050,000	7-4
Install Grounding Grid @ Substation 32	947,372	7-5
FedEx Substation	750,000	7-6
Replace Reactor Substation 1	550,000	7-7
Replace batteries various locations	520,000	7-8
Refurbish Station Service & AC Panelboards @ Substation 34	321,167	7-9
Replace 161 kV Potential Transformer @ Substation 32	193,310	7-10
Substation 4 OH/UG Conversion Ckts 2395 & 2397 (City of Memphis)	188,723	7-11
Replace 161kV CVT @ Substation 42	180,000	7-12
Install TRV Capacitors	120,000	7-13
Replace switches various locations	100,000	7-14
Replace/Install Misc. (switches,batteries,fiber,etc)	50,000	7-15
Seismic Retrofit of Non-Structural Substation Components	50,000	7-16
Animal Mitigation	20,000	7-17
<b>TOTAL SUBSTATION IMPROVEMENTS</b>	<b>11,693,996</b>	
<b><u>SUBSTATION - NERC COMPLIANCE</u></b>		
Install/Upgrade Digital Fault Recorders	1,000,000	7-18
NERC Low Impact Compliance	100,000	7-19
<b>TOTAL NERC COMPLIANCE</b>	<b>1,100,000</b>	
<b><u>SUBSTATION TRANSFORMERS</u></b>		
Replace 161/23/12 kV transformer bank 32649 @ Substation 32	3,416,500	7-20
Replace 23/12 kV transformer banks 5335 & 5337 @ Substation 5	3,117,470	7-21
Procurement of Spare Transformers	2,500,000	7-22
Replace 115/12 kV transformer banks 1157 & 1159 @ Substation 21	1,500,000	7-23
Replace 115/12 kV transformer banks 6555, 6557 & 6559 @ Substation 6	1,500,000	7-24
<b>TOTAL SUBSTATION TRANSFORMERS</b>	<b>12,033,970</b>	
<b><u>SUBSTATION CIRCUIT BREAKERS</u></b>		
Contingency Replace Breakers	500,000	7-25
Replace 12 kV Breaker 7613 @ Substation 27	364,006	7-26
Replace 115 kV Breaker 5153 @ Substation 25	300,000	7-27
Replace 23 kV Breaker 1805 @ Substation 11	267,116	7-28
Replace 161 kV Breaker 11643 @ Substation 11	265,251	7-29
Replace 12 kV Breaker 6609 @ Substation 26	200,000	7-30
Replace 12 kV Breaker 46205 @ Substation 46	200,000	7-31
Replace 12 kV Breaker 3757 @ Substation 13	200,000	7-32
Replace 12 kV Breaker 6609 @ Substation 26	200,000	7-33
Replace 23 kV Breaker 1835 @ Substation 11	200,000	7-34
Replace 23 kV Breaker 1837 @ Substation 11	200,000	7-35
Replace 23 kV Breaker 45349 @ Substation 45	200,000	7-36
Replace 12 kV Breaker 4713 @ Substation 14	200,000	7-37
Replace Breakers Substation 21 - Network Substation Contingency	145,860	7-38
<b>TOTAL SUBSTATION CIRCUIT BREAKERS</b>	<b>3,442,233</b>	
<b>TOTAL SUBSTATION</b>	<b>28,270,199</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

ELECTRIC DIVISION

PAGE 8

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>SUBSTATION/TRANSMISSION PROJECTS</u></b>		
Structure #1613 Bank Stabilization	1,000,000	8-1
Misc. projects (OPGW, structure replacements, etc.)	1,000,000	8-2
OPGW 42-23	210,000	8-3
OPGW 11-35	200,000	8-4
Unmanned Aerial Vehicle	145,250	8-5
<b>TOTAL SUBSTATION/TRANSMISSION PROJECTS</b>	<b>2,555,250</b>	
<b><u>TRANSMISSION - REIMBURSABLE</u></b>		
TVA CC Plant - Horn Lake Line Transmission Improvements	155,000	8-6
TVA CC Plant - Transmission Improvements	100,000	8-7
FedEx Station Transmission	50,000	8-8
TDOT Lamar & Shelby Drive	50,000	8-9
<b>TOTAL TRANSMISSION REIMBURSABLE</b>	<b>355,000</b>	
<b>TOTAL TRANSMISSION LINES</b>	<b>2,910,250</b>	
<b>TOTAL - SUBSTATION AND TRANSMISSION</b>	<b>31,180,449</b>	
<b><u>DISTRIBUTION SYS. - MAJOR PROJECTS</u></b>		
New Ckt Sub 84 North	1,500,000	8-10
Sub. 84, Germantown Rd. Steel Pole Line	1,000,000	8-11
Other New Circuits Projects	1,000,000	8-12
Holmes Rd - Crumpler to Riverdale(Sub 9 tie)	475,000	8-13
Substation 84 Cabling (3 ckts)	250,000	8-14
Sub. 84, Germantown Rd. Steel Pole Line	250,000	8-15
<b>TOTAL MAJOR NEW CIRCUIT PROJECTS</b>	<b>4,475,000</b>	
<b><u>MISC. PROJECTS - REIMBURSABLE</u></b>		
Pinch District Improvements	2,000,000	8-16
Other Customer Relocation Projects	1,699,660	8-17
<b>TOTAL MISC. PROJECTS - REIMBURSABLE</b>	<b>3,699,660</b>	
<b><u>STREET IMPROVEMENT PROJECTS</u></b>		
Elvis Presley Corridor - Middle Segment	2,707,955	8-18
SR-57/Poplar Bridge @Scott Street & SR-23/Walnut Grove (SP 02/12)	1,500,000	8-19
SR-1/US-70/Summer Ave, from Macon Rd To Elmore Rd	750,000	8-20
Malone Road, Holmes Rd. to Shelby Drive	500,000	8-21
Holmes Rd - Malone Rd To Lamar Ave	375,000	8-22
Germantown Road @ Wolf River Blvd. (C/O)	350,000	8-23
Old Brownsville Rd, Covington Pike to Kirby Pkwy (C/O)	285,000	8-24
SR-14, From SR 385 to East of Kerrville-Rosemark	100,000	8-25
Mudville Road Bridge, over Big Creek Proj.# 100111	100,000	8-26
<b>TOTAL MAJOR STREET IMPROVEMENT PROJECTS</b>	<b>6,667,955</b>	
<b>TOTAL DISTRIBUTION SYS. - MAJOR PROJECTS</b>	<b>14,842,615</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

ELECTRIC DIVISION

PAGE 9

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>GENERAL PLANT</u></b>		
<b><u>PURCHASE OF LAND</u></b>	1,200,000	9-1
<b><u>BUILDINGS &amp; STRUCTURES</u></b>		
<b><u>SUBSTATIONS</u></b>		
Replace Roofs - Various Substations	403,300	9-2
<b><u>ELECTRIC &amp; SYSTEMS OPERATIONS</u></b>		
UPS Battery Replacement	54,000	9-3
New Storeroom Building	350,000	9-4
ESO - Drainage and pavement upgrade (Front of Bldg.)	168,000	9-5
<b><u>NETTERS BUSINESS OPERATIONS CENTER</u></b>		
Trane Chiller Renewal Service Program	90,000	9-6
<b>TOTAL BUILDINGS &amp; STRUCTURES</b>	1,065,300	
<b>ELEC - SECURITY AUTOMATION</b>	4,349,477	9-7
<b>ELEC - FLEET CAPITAL POWER OPERATED EQUIPMENT</b>	2,915,790	9-8
<b>ELEC - TRANSPORTATION EQUIPMENT</b>	2,938,879	9-9
<b>ELEC - COMMUNICATION EQUIPMENT</b>	95,040	9-10
<b>LAB &amp; TEST</b>	216,702	9-11
<b><u>COMMUNICATION TOWERS</u></b>		
Microwave/Mobile Radio	14,003,000	9-12
<b>TOTAL COMMUNICATION TOWERS</b>	14,003,000	
<b><u>TELECOMMUNICATION NETWORK</u></b>		
Fiber optic cable and equipment	1,057,000	9-13
System Automation	900,000	9-14
Fiber optic multiplexers	646,400	9-15
Telecommunication Systems Growth	216,000	9-16
Voice Network	15,000	9-17
<b>TOTAL TELECOMMUNICATIONS NETWORK</b>	2,834,400	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

ELECTRIC DIVISION

PAGE 10

DESCRIPTION	IN	REF. NO.
	BUDGET YEAR	
<b><u>GENERAL PLANT (Continued)</u></b>		
<b><u>UTILITY MONITORING &amp; CONTROL SYSTEMS</u></b>		
DMS SYSTEM UPGRADE	600,000	10-1
VIDEO WALL IMPLEMENTATION	118,750	10-2
OPENNET REALTIME POWER FLOW ANALYSIS	84,750	10-3
SCADA UPGRADE	54,390	10-4
SCADA COMMUNICATION UPGRAGDE	50,000	10-5
TOTAL UTILITY MONITORING & CONTROL SYS.	907,890	
<b><u>CUSTOMER INFO SYSTEM (CIS) DEVELOPMENT</u></b>		
Mobile Dispatching System Replacement (C/O)	2,400,000	10-6
CIS Production Hardware & Software Upgrade (C/O)	703,080	10-7
BillGen Replacement	560,000	10-8
Electric Meter Test Board Replacement	400,000	10-9
IVR Replacement (C/O)	221,327	10-10
Meter Data Management System (C/O)	195,170	10-11
TOTAL CUSTOMER INFO. SYS. DEVELOPMENT	4,479,577	
<b><u>BUSINESS CONTINUITY</u></b>		
Data Center Upgrade (C/O)	600,407	10-12
Virtual Backup System	555,000	10-13
Network Security Enhancements	500,000	10-14
Backup Expansion (C/O)	333,520	10-15
TOTAL BUSINESS CONTINUITY	1,988,927	
<b><u>PURCHASE OF DATA PROCESSING EQUIPMENT</u></b>		
Storage Area Network Upgrade	1,830,938	10-16
AI Project	915,000	10-17
Annual New\Replacement Servers\Win OS Upgrades (C/O)	882,469	10-18
Annual New\Replacement Servers New	665,000	10-19
Annual Network Upgrades	610,000	10-20
Network Access Control for End Points	571,000	10-21
2020 Storage Upgrade- (C/O)	470,000	10-22
Project Portfolio Management Software	425,000	10-23
Work Center Wireless (outdoor)	400,000	10-24
EBS Succession Plan	250,000	10-25
ArcGIS Mobile Viewer	62,816	10-26
PC Equipment	44,604	10-27
TOTAL PURCHASE OF DATA PROCESSING EQUIPMENT	7,126,827	
<b><u>CONTINGENCY FUNDS - GENERAL PLANT</u></b>	200,000	10-28
<b>TOTAL GENERAL PLANT</b>	<b>44,321,809</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL CARRYOVER SUMMARY\*  
FOR CALENDAR YEAR OF 2021

ELECTRIC DIVISION

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<u>CAPITAL CARRYOVER CATEGORY</u>	<u>CARRYOVER AMOUNT</u>
Substations, Transmission & Distribution System	20,210,787
Telecommunication Network & Communication Towers	14,078,000
CIS Info Systems Development	4,479,577
Purchase of Data Processing Equipment	3,646,223
Power Operated and Transportation Equipment	2,298,589
Business Continuity	1,433,927
Security Automation	893,574
Buildings & Structures	425,300
Utility Monitoring	257,890
Lab & Test Equipment	41,040
<b>TOTAL CAPITAL CARRYOVER SUMMARY</b>	<b><u>47,764,907</u></b>

\*Carryover items constitute the funding necessary for capital projects or purchases not completed during the prior budget year. This would include projects which may have been delayed, large projects requiring multiple years to complete, or commodities ordered but not received. These items are part of the total 2021 Budget.



# GAS DIVISION



MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
2019 THROUGH 2021

GAS DIVISION

PAGE 12

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2019 ACTUAL	2020 BUDGET	2021 BUDGET	
<b>OPERATING REVENUE</b>				
Sales Revenue	228,709	214,840	221,914	12-1
Revenue Adjustment for Uncollectibles	(1,156)	(1,095)	(999)	12-2
Non-Sales Revenue	33,075	30,183	25,487	12-3
<b>OPERATING REVENUE</b>	<b>260,628</b>	<b>243,928</b>	<b>246,402</b>	
<b>OPERATING EXPENSE</b>				
Production - LNG Plant	1,263	1,403	1,342	12-4
Purchased Gas	108,948	105,333	110,117	12-5
Compressed Natural Gas (CNG)	71	72	12	12-6
Liquefied Natural Gas (LNG)	1,536	1,932	1,116	12-7
Distribution Expense	24,180	26,669	27,702	12-8
Customer Accounts Expense	10,447	11,175	11,574	12-9
Customer Service & Information Expense	1,361	1,551	1,654	12-10
Sales Expense	338	388	413	12-11
Administrative & General Expense	36,046	40,864	41,840	12-12
<b>OPERATING EXPENSE</b>	<b>184,190</b>	<b>189,387</b>	<b>195,770</b>	
<b>MAINTENANCE EXPENSE</b>				
Production Expense	319	417	411	12-13
Distribution Expense	6,452	7,559	7,636	12-14
Administrative & General Expense	112	1,375	1,480	12-15
<b>MAINTENANCE EXPENSE</b>	<b>6,883</b>	<b>9,351</b>	<b>9,527</b>	
<b>OTHER OPERATING EXPENSE</b>				
Depreciation Expense	17,594	18,590	18,273	12-16
Payment in Lieu of Taxes	19,063	20,471	22,780	12-17
F.I.C.A. Taxes	634	678	658	12-18
Amortization of Leasehold Improvements	-	-	-	12-19
Amortization of Legacy Meters	1,094	565	1,483	12-20
Amortization of Software	3,812	3,952	3,939	12-21
<b>OTHER OPERATING EXPENSE</b>	<b>42,197</b>	<b>44,256</b>	<b>47,133</b>	
<b>TOTAL OPERATING EXPENSE</b>	<b>233,270</b>	<b>242,994</b>	<b>252,430</b>	
<b>INCOME</b>				
Operating Income	27,358	934	(6,028)	12-22
Other Income	1,336	281	1,028	12-23
Reduction of Plant Cost Recovered through CIAC	(1,518)	(4,679)	(3,954)	12-24
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>27,176</b>	<b>(3,464)</b>	<b>(8,954)</b>	
<b>DEBT EXPENSE</b>				
Interest Expense - Long-Term Debt	3,461	5,453	5,750	12-25
Amortization of Debt Discount & Expense	(1,122)	(1,084)	(1,683)	12-26
<b>TOTAL DEBT EXPENSE</b>	<b>2,339</b>	<b>4,369</b>	<b>4,067</b>	
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>24,837</b>	<b>(7,833)</b>	<b>(13,021)</b>	
Contributions in Aid of Construction	1,518	4,679	3,954	12-27
<b>CHANGE IN NET POSITION*</b>	<b>26,355</b>	<b>(3,154)</b>	<b>(9,067)</b>	
* Excludes Pension Non-Cash and Other Post Employment Benefits Non-Cash				

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**GAS DIVISION**

**PAGE 12a**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>OPERATING REVENUE</u></b>			
Sales Revenue	214,840	221,914	7,074
Revenue Adjustment for Uncollectibles	(1,095)	(999)	96
<b>Non-Sales Revenue</b>			
Forfeited Discounts	2,846	3,107	261
Miscellaneous Service Revenue	2,112	2,304	192
Other Operating Revenue	528	552	24
Compressed Natural Gas (CNG)	192	24	(168)
Liquefied Natural Gas (LNG)	3,852	2,628	(1,224)
Rent from Electric/Water Property	10,065	6,000	(4,065)
Transported Gas	10,588	10,872	284
<b>Total Non-Sales Revenue</b>	<b>30,183</b>	<b>25,487</b>	<b>(4,696)</b>
<b>OPERATING REVENUE</b>	<b>243,928</b>	<b>246,402</b>	<b>2,474</b>
<b><u>OPERATING EXPENSE</u></b>			
Purchased Gas	105,333	110,117	4,784
Compressed Natural Gas (CNG)	72	12	(60)
Liquified Natural Gas (LNG)	1,932	1,116	(816)
<b>Production Expense</b>			
Fuel Gas	-	-	-
Operation Labor and Expenses	1,258	1,202	(56)
Operation Supervision and Engineering	145	140	(5)
<b>Total Production Expense</b>	<b>1,403</b>	<b>1,342</b>	<b>(61)</b>
<b>Distribution Expense</b>			
Customer Installation Expenses	5,122	5,068	(54)
Distribution Load Dispatching Expense	744	763	19
Mains and Services	4,730	4,950	220
Measuring and Regulating Expenses	67	79	12
Meter and House Regulator Expenses	3,648	3,422	(226)
Miscellaneous Distribution Expenses <sup>(1)</sup>	8,926	9,828	902
Rents	25	16	(9)
Operation Supervision and Engineering	3,407	3,576	169
<b>Total Distribution Expense</b>	<b>26,669</b>	<b>27,702</b>	<b>1,033</b>
<b>Customer Accounts Expense</b>			
Customer Order, Records and Collection Expenses	9,432	9,985	553
Meter Reading Expenses	1,630	1,457	(173)
Supervision-Customer Accounting and Collection	113	132	19
<b>Total Customer Accounts Expense</b>	<b>11,175</b>	<b>11,574</b>	<b>399</b>
<b>Customer Service &amp; Information Expense</b>			
Customer Assistance Expenses	673	670	(3)
Informational and Instructional Advertising Expenses	53	58	5
Miscellaneous Customer Service & Informational Expenses	599	675	76
Supervision-Customer Service and Information	226	251	25
<b>Total Customer Service &amp; Information Expense</b>	<b>1,551</b>	<b>1,654</b>	<b>103</b>
Demonstrating and Selling Expenses	-	-	-
Miscellaneous Sales Expenses	388	413	25
<b>Total Sales Expense</b>	<b>388</b>	<b>413</b>	<b>25</b>

<sup>(1)</sup> Includes, but not limited to, the following items: Accrued vacation, absences such as holiday and sick leave, lost time due to bad weather, stand-by pay, and contract services.

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**GAS DIVISION**

**PAGE 12b**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>OPERATING EXPENSE (Continued)</u></b>			
<b>Administrative &amp; General Expense</b>			
Administrative and General Salaries	6,426	6,950	524
Administration Expenses Transferred to Capital	(1,500)	(1,298)	202
Pension Expense	5,635	5,562	(73)
Other Active & Retiree Benefits	12,417	12,293	(124)
Other Post Employment Benefits Funding	1,051	1,040	(11)
Injuries and Damages	1,621	1,769	148
Miscellaneous General Expenses <sup>(2)</sup>	4,028	3,919	(109)
Office Supplies and Expenses	1,886	2,135	249
Outside Services Employed	5,120	5,471	351
Property Insurance	603	826	223
Rents-Miscellaneous	3,577	3,173	(404)
<b>Total Administrative &amp; General Expense</b>	<b>40,864</b>	<b>41,840</b>	<b>976</b>
<b>OPERATING EXPENSE</b>	<b>189,387</b>	<b>195,770</b>	<b>6,383</b>
<b><u>MAINTENANCE EXPENSE</u></b>			
<b>Production Expense</b>			
Maintenance of Other Equipment	104	104	-
Maintenance of Structures and Improvements	85	85	-
Maintenance Supervision and Engineering	228	222	(6)
<b>Total Production Expense</b>	<b>417</b>	<b>411</b>	<b>(6)</b>
<b>Distribution Expense</b>			
Maintenance of Mains	4,687	4,623	(64)
Maintenance of Meters	301	296	(5)
Maintenance of Services	1,078	1,162	84
Maintenance of Gas Distribution Facilities	-	-	-
Maintenance of Structures and Improvements	-	-	-
Maintenance Supervision and Engineering	85	85	-
Measuring and Regulating Equipment Expenses	1,408	1,470	62
<b>Total Distribution Expense</b>	<b>7,559</b>	<b>7,636</b>	<b>77</b>
<b>Administrative &amp; General Expense</b>			
Maintenance of General Plant	1,248	1,322	74
Facilities Maintenance Expense	127	158	31
<b>Total Administrative &amp; General Expense</b>	<b>1,375</b>	<b>1,480</b>	<b>105</b>
<b>MAINTENANCE EXPENSE</b>	<b>9,351</b>	<b>9,527</b>	<b>176</b>
<b><u>OTHER OPERATING EXPENSE</u></b>			
Depreciation Expense	18,590	18,273	(317)
Payment in Lieu of Taxes	20,471	22,780	2,309
F.I.C.A. Taxes	678	658	(20)
Amortization of Leasehold Improvements	-	-	-
Amortization of Legacy Meters	565	1,483	918
Amortization of Software	3,952	3,939	(13)
<b>OTHER OPERATING EXPENSE</b>	<b>44,256</b>	<b>47,133</b>	<b>2,877</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>242,994</b>	<b>252,430</b>	<b>9,436</b>
<sup>(2)</sup> Includes, but not limited to, the following items: Mail distribution, property appraisals, security and janitorial services, and fuel use by MLGW.			

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**GAS DIVISION**

**PAGE 12c**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>INCOME</u></b>			
Operating Income	934	(6,028)	(6,962)
Other Income			
Expenses of Merchandising, Jobbing & Contracts	(2,521)	(2,521)	-
Revenues from Merchandising, Jobbing & Contracts	1,302	1,302	-
Revenues from Non-Utility Property	8	-	(8)
Revenues from Common Transportation Equipment	377	-	(377)
Revenues from Sinking & Other Funds-Interest Income	1,000	2,000	1,000
Medicare Part D Refund	81	158	77
Miscellaneous Non-Operating Income	34	89	55
<b>Total Other Income</b>	<b>281</b>	<b>1,028</b>	<b>747</b>
<b>Reduction of Plant Cost Recovered through CIAC</b>	<b>(4,679)</b>	<b>(3,954)</b>	<b>725</b>
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>(3,464)</b>	<b>(8,954)</b>	<b>(5,490)</b>
<b><u>DEBT EXPENSE</u></b>			
Interest Expense - Long-Term Debt			
Interest on Ltd - Series 2016	1,623	1,565	(58)
Interest on Ltd - Series 2017	1,730	1,663	(67)
Interest on Ltd - Series 2020	2,100	2,522	422
<b>Total Interest Expense - Long-Term Debt</b>	<b>5,453</b>	<b>5,750</b>	<b>297</b>
Amortization of Debt Discount & Expense			
Amortization of Debt Disc & Exp - Series 2016	(579)	(561)	18
Amortization of Debt Disc & Exp - Series 2017	(505)	(485)	20
Amortization of Debt Disc & Exp - Series 2020	-	(637)	(637)
<b>Total Amortization of Debt Discount &amp; Expense</b>	<b>(1,084)</b>	<b>(1,683)</b>	<b>(599)</b>
<b>TOTAL DEBT EXPENSE</b>	<b>4,369</b>	<b>4,067</b>	<b>(302)</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>(7,833)</b>	<b>(13,021)</b>	<b>(5,188)</b>
Contributions in Aid of Construction	4,679	3,954	(725)
<b>CHANGE IN NET POSITION</b>	<b>(3,154)</b>	<b>(9,067)</b>	<b>(5,913)</b>

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SOURCE AND APPLICATION OF FUNDS  
2021 BUDGET  
(THOUSANDS OF DOLLARS)

GAS DIVISION

PAGE 13

		REF. NO.
<b><u>SOURCE OF FUNDS:</u></b>		
<b>FROM OPERATIONS:</b>		
Change in Net Position	(9,067)	13-1
Non-Cash Charges to Income:		
Depreciation Charged to Operating Income	18,273	13-2
Depreciation Charged to Other Accounts	1,617	13-3
Amortization of Legacy Meters	1,483	13-4
Amortization of Software	3,939	13-5
<b>TOTAL FUNDS FROM OPERATIONS</b>	<b>16,245</b>	
Salvage	332	13-6
Financing: 2020 Bond Issuance	21,844	13-7
<b>TOTAL FUNDS AVAILABLE</b>	<b>38,421</b>	
<b><u>APPLICATION OF FUNDS:</u></b>		
Capital Expenditures	33,651	13-8
Costs of Removal and Other Charges to the Reserve for Depreciation	120	13-9
Retirement of Long Term Debt	4,650	13-10
<b>TOTAL APPLICATION OF FUNDS</b>	<b>38,421</b>	
<b>INCREASE (DECREASE) IN WORKING CAPITAL</b>	<b>(0)</b>	



MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES COMPARISON  
FOR CALENDAR YEAR OF 2021

GAS DIVISION

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DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2019 ACTUAL	2020 BUDGET	2021 BUDGET	
<b>PRODUCTION SYSTEM</b>				
GAS - LNG PROCESSING FACILITIES	-	175	600	14-1
<b>TOTAL PRODUCTION SYSTEM</b>	-	175	600	
<b>DISTRIBUTION SYSTEM</b>				
GAS - RESIDENTIAL SERVICE IN S/D	-	2	1	14-2
GAS - RESIDENTIAL SERVICE NOT IN S/D	313	655	722	14-3
GAS - RESIDENTIAL S/D	10	15	9	14-4
GAS - LAND PURCHASE	(94)	435	375	14-5
GAS - GENERAL POWER SERVICE	465	2,522	2,842	14-6
GAS - GENERAL POWER S/D	32	-	98	14-7
GAS - MULTIPLE-UNIT GENERAL POWER	23	62	32	14-8
GAS - RELOCATE AT CUSTOMER REQUEST	15	171	186	14-9
GAS - PURCHASE OF METERS	9,552	1,363	3,411	14-10
GAS - STREET IMPROVEMENTS	758	3,571	4,190	14-11
GAS - DEMOLITION	64	-	-	14-12
GAS - NEW GAS MAIN	635	500	250	14-13
GAS - GAS MAIN/SERVICE REPL (D.O.T.)	4,109	5,040	5,765	14-14
GAS - TRANSMISSION PIPELINES AND FACILITIES	117	2,500	3,300	14-15
GAS - REGULATOR STATIONS	149	1,000	1,100	14-16
GAS - GATE STATIONS	43	-	-	14-17
GAS - PLANNED MAINTENANCE	3,928	4,800	4,896	14-18
JT - RESIDENTIAL SERVICE IN S/D	-	379	466	14-19
JT - RESIDENTIAL SERVICE NOT IN S/D	-	3	1	14-20
JT - RESIDENTIAL S/D	843	978	731	14-21
JT - APARTMENTS	14	27	12	14-22
GAS - EMERGECENY MAINTENANCE	710	1,519	1,547	14-23
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC)	(1,117)	(4,679)	(3,954)	14-24
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>20,569</b>	<b>20,863</b>	<b>25,980</b>	
<b>GENERAL PLANT</b>				
GAS - BUILDINGS & STRUCTURES	-	2,653	3,845	14-25
GAS - SECURITY AUTOMATION	-	960	960	14-26
GAS - FURNITURE & FIXTURES	-	467	-	14-27
GAS - DATA PROCESSING	-	-	158	14-28
GAS - IS/IT PROJECTS	-	196	-	14-29
GAS - FLEET CAPITAL COMMON POWER OPERATED EQUIP	-	334	1,421	14-30
GAS - FLEET CAPITAL COMMON TRANSPORTATION EQUIP	903	1,416	2,788	14-31
GAS - FLEET GAS POWER OPERATED EQUIPMENT	3	2,217	864	14-32
GAS - FLEET GAS TRANSPORTATION EQUIPMENT	164	624	4,196	14-33
GAS - AUTOMATED FUELING SYSTEM	30	60	-	14-34
GAS - TOOLS & EQUIPMENT	(194)	110	36	14-35
GAS - COMMON TOOLS & EQUIPMENT	(106)	222	32	14-36
GAS - GAS MISCELLANEOUS	-	-	983	14-37
GAS - CONTINGENCY FUNDS	-	200	200	14-38
<b>TOTAL - GENERAL PLANT</b>	<b>800</b>	<b>9,459</b>	<b>15,483</b>	
<b>TOTAL GAS DIVISION</b>	<b>21,369</b>	<b>30,497</b>	<b>42,063</b>	
Delayed Cost Allocations	144	(6,419)	(8,412)	14-39
<b>TOTAL - GAS DIVISION</b>	<b>21,513</b>	<b>24,078</b>	<b>33,651</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

GAS DIVISION

PAGE 15

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>PRODUCTION SYSTEM</u></b>		
Gas - LNG Processing Facilities	600,000	15-1
<b>TOTAL GAS - PRODUCTION SYSTEM</b>	<b>600,000</b>	
<b><u>DISTRIBUTION SYSTEM - MAJOR PROJECTS</u></b>		
<b><u>STREET IMPROVEMENTS</u></b>		
Holmes Rd, Malone Rd To Lamar Ave	2,400,000	15-2
CP 05/15, Malone Rd, Holmes to Shelby	500,000	15-3
SC 17/02, Mudville Road Bridge, over Big Creek	300,000	15-4
SR-1/US-70/Summer Ave, from Macon Rd To Elmore Rd	250,000	15-5
BT 16/03, Old Brownsville Road, Austin Peay to Kirby Whitten	246,000	15-6
CP 16/16 Elvis Presley Middle Seg, WO288159	145,000	15-7
GT 16/01, Germantown Rd at Brierbrook, W8Q43005	124,000	15-8
Raleigh Millington bridge over Big Creek	124,000	15-9
CP 04/39, Pleasant Hill Rd - Holmes To Shelby	50,000	15-10
SR-14, from SR-385 to Kerrville/Rosemark Road.	50,000	15-11
AP 19/01, Memphis Arlington Road; Gerber to Milton Wilson, WO548048	1,000	15-12
<b>TOTAL GAS - STREET IMPROVEMENTS</b>	<b>4,190,000</b>	
<b><u>TRANSMISSION PIPELINES AND FACILITIES</u></b>		
12" XHP Brooks to McMullen	1,900,000	15-13
18" XXHP Pipeline Replacement @ Covington Pike & LNRR	500,000	15-14
12" PEMP Landfill Line, De-Commissioning	500,000	15-15
External Corrosion Assessment Inspection	400,000	15-16
<b>TOTAL TRANSMISSION PIPELINES AND FACILITIES</b>	<b>3,300,000</b>	
<b>TOTAL DISTRIBUTION SYS. - MAJOR PROJECTS</b>	<b>7,490,000</b>	
<b><u>GENERAL PLANT</u></b>		
<b><u>BUILDINGS &amp; STRUCTURES</u></b>		
<b><u>SOUTH SERVICE CENTER</u></b>		
Paving Upgrade	300,000	15-17
Replace Truck Canopy Roof	215,000	15-18
Replace Storage Canopy Roof	117,000	15-19
<b><u>NORTH SERVICE CENTER</u></b>		
Building #8 ( Re-cover over Stores 160,668 square foot roof)	905,500	15-20
Asphalt Paving & Concrete Slabs/ Drives	500,000	15-21
Building #8 ( Re-cover over office 24,000 square foot roof)	179,500	15-22
Building #1: Replace Roof-top Unit	45,000	15-23
Building #3 Replace DRAVO Heaters & Controls	35,000	15-24

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

GAS DIVISION

PAGE 16

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>GENERAL PLANT (Continued)</u></b>		
<b><u>BRUNSWICK SERVICE CENTER</u></b>		
Install Automated Gates, Replace Guard House & new Fence	474,000	16-1
Paving Upgrades	400,000	16-2
Canopy for Transmission Crew Equipment	274,000	16-3
<b><u>Hickory Hill Service Center</u></b>		
Paving Upgrade - Phase 1	300,000	16-4
Storeroom Restroom	50,000	16-5
<b><u>CHOCTAW</u></b>		
Asset Reclamation Restroom	50,000	16-6
<b>TOTAL BUILDINGS &amp; STRUCTURES</b>	<b>3,845,000</b>	
<b>GAS - SECURITY AUTOMATION</b>	<b>959,623</b>	16-7
<b>GAS - TOOLS &amp; EQUIPMENT</b>	<b>36,250</b>	16-8
<b>GAS-Tools and Equipment - Common</b>	<b>31,652</b>	16-9
<b>FLEET CAPITAL COMMON POWER OPERATED EQUIP</b>	<b>1,421,070</b>	16-10
<b>FLEET CAPITAL COMMON TRANSPORTATION EQUIP</b>	<b>2,787,825</b>	16-11
<b>FLEET GAS POWER OPERATED EQUIPMENT</b>	<b>864,497</b>	16-12
<b>FLEET GAS TRANSPORTATION EQUIPMENT</b>	<b>4,195,790</b>	16-13
<b><u>IS/IT PROJECTS</u></b>		
Natural Gas Management System (CO)	158,387	16-14
<b>TOTAL IS/IT PROJECTS</b>	<b>158,387</b>	
<b>Miscellaneous Request - PPE</b>	<b>983,000</b>	16-15
<b><u>CONTINGENCY FUNDS - GENERAL PLANT</u></b>	<b>200,000</b>	16-16
<b>TOTAL GENERAL PLANT</b>	<b>15,483,094</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL CARRYOVER SUMMARY\*  
FOR CALENDAR YEAR OF 2021

GAS DIVISION

PAGE 17

<u>CAPITAL CARRYOVER CATEGORY</u>	<u>CARRYOVER AMOUNT</u>
Distribution System	4,694,000
Power Operated and Transportation Equipment	3,264,373
Buildings & Structures	1,460,000
Security Automation	959,623
Data Processing- IS/IT	158,387
<b>TOTAL CAPITAL CARRYOVER SUMMARY</b>	<b><u>10,536,383</u></b>

\*Carryover items constitute the funding necessary for capital projects or purchases not completed during the prior budget year. This would include projects which may have been delayed, large projects requiring multiple years to complete, or commodities ordered but not received. These items are part of the total 2021 Budget.

# **WATER DIVISION**



**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2019 THROUGH 2021**

**WATER DIVISION**

**PAGE 18**

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2019 ACTUAL	2020 BUDGET	2021 BUDGET	
<b>OPERATING REVENUE</b>				
Sales Revenue	101,329	101,638	116,477	18-1
Revenue Adjustment for Uncollectibles	(848)	(886)	(902)	18-2
Non-Sales Revenue	5,198	5,151	5,436	18-3
<b>OPERATING REVENUE</b>	<b>105,679</b>	<b>105,903</b>	<b>121,011</b>	
<b>OPERATING EXPENSE</b>				
Production Expense	13,020	14,651	14,583	18-4
Distribution Expense	11,959	12,673	15,908	18-5
Customer Accounts Expense	7,333	7,811	8,128	18-6
Customer Service & Information Expense	954	949	988	18-7
Sales Expense	323	364	321	18-8
Administrative & General Expense	27,882	34,573	34,815	18-9
<b>OPERATING EXPENSE</b>	<b>61,471</b>	<b>71,021</b>	<b>74,743</b>	
<b>MAINTENANCE EXPENSE</b>				
Production Expense	1,899	3,420	3,590	18-10
Distribution Expense	8,038	9,680	9,406	18-11
Administrative & General Expense	2,956	1,796	3,631	18-12
<b>MAINTENANCE EXPENSE</b>	<b>12,893</b>	<b>14,896</b>	<b>16,627</b>	
<b>OTHER OPERATING EXPENSE</b>				
Depreciation Expense	10,861	11,686	11,904	18-13
Payment in Lieu of Taxes	2,500	2,500	2,500	18-14
F.I.C.A. Taxes	469	504	485	18-15
Amortization of SCBPU Acquisition Adjustments	(482)	-	-	18-16
Amortization of Legacy Meters	256	397	493	18-17
<b>OTHER OPERATING EXPENSE</b>	<b>13,604</b>	<b>15,087</b>	<b>15,382</b>	
<b>TOTAL OPERATING EXPENSE</b>	<b>87,968</b>	<b>101,004</b>	<b>106,752</b>	
<b>INCOME</b>				
Operating Income	17,711	4,899	14,259	18-18
Other Income	1,055	800	1,055	18-19
Reduction of Plant Cost Recovered through CIAC	(3,345)	(2,975)	(4,604)	18-20
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>15,421</b>	<b>2,724</b>	<b>10,710</b>	
<b>DEBT EXPENSE</b>				
Interest Expense - Existing Long - Term Debt	2,242	4,612	4,749	18-21
Amortization of Debt Discount & Expense	(422)	(409)	(1,053)	18-22
<b>TOTAL DEBT EXPENSE</b>	<b>1,820</b>	<b>4,203</b>	<b>3,696</b>	
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>13,601</b>	<b>(1,479)</b>	<b>7,014</b>	
Contributions in Aid of Construction	3,345	2,975	4,604	18-23
<b>CHANGE IN NET POSITION*</b>	<b>16,946</b>	<b>1,496</b>	<b>11,618</b>	

\* Excludes Pension Non-Cash and Other Post Employment Benefits Non-Cash



**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**WATER DIVISION**

**PAGE 18a**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b>OPERATING REVENUE</b>			
<b>Sales Revenue</b>	<b>101,638</b>	<b>116,477</b>	<b>14,839</b>
<b>Revenue Adjustment for Uncollectibles</b>	<b>(886)</b>	<b>(902)</b>	<b>(16)</b>
<b>Non-Sales Revenue</b>			
Forfeited Discounts	1,366	1,524	158
Miscellaneous Service Revenue	1,800	1,992	192
Cross Connection Revenue	1,380	1,380	-
Other Operating Revenue	372	396	24
Rent from Electric/Gas Property	233	144	(89)
<b>Total Non-Sales Revenue</b>	<b>5,151</b>	<b>5,436</b>	<b>285</b>
<b>OPERATING REVENUE</b>	<b>105,903</b>	<b>121,011</b>	<b>15,108</b>
<b>OPERATING EXPENSE</b>			
<b>Production Expense</b>			
Chemicals	1,000	1,100	100
Operations Production Water Treatment	-	55	55
Fuel or Power Purchased for Pumping	7,732	7,300	(432)
Miscellaneous Expense	2,631	2,988	357
Operation Labor and Expenses	2,708	2,603	(105)
Operation Supervision and Engineering	283	231	(52)
Pumping Labor and Expenses	297	306	9
<b>Total Production Expense</b>	<b>14,651</b>	<b>14,583</b>	<b>(68)</b>
<b>Distribution Expense</b>			
Customer Installation Expenses	3,009	3,014	5
Meter Expenses	1,450	1,346	(104)
Miscellaneous Distribution Expenses <sup>(1)</sup>	5,709	8,921	3,212
Operation Supervision and Engineering	2,122	2,185	63
Storage Facilities	101	104	3
Transmission and Distribution Lines	280	336	56
Rents	2	2	-
<b>Total Distribution Expense</b>	<b>12,673</b>	<b>15,908</b>	<b>3,235</b>
<b>Customer Accounts Expense</b>			
Customer Order, Records and Collection Expenses	6,507	6,943	436
Meter Reading Expenses	1,194	1,056	(138)
Supervision-Customer Accounting and Collection	110	129	19
<b>Total Customer Accounts Expense</b>	<b>7,811</b>	<b>8,128</b>	<b>317</b>
<b>Customer Service &amp; Information Expense</b>			
Customer Assistance Expenses	503	500	(3)
Informational and Instructional Advertising Expenses	222	239	17
Supervision-Customer Service and Information	224	249	25
<b>Total Customer Service &amp; Information Expense</b>	<b>949</b>	<b>988</b>	<b>39</b>
<b>Sales Expense</b>			
Demonstrating and Selling Expenses	-	-	-
Miscellaneous Sales Expenses	364	321	(43)
Sales Expense and Supervision	-	-	-
<b>Total Sales Expense</b>	<b>364</b>	<b>321</b>	<b>(43)</b>
 <sup>(1)</sup> Includes, but not limited to, the following items: Accrued vacation, absences such as holiday and sick leave, lost time due to bad weather, stand-by pay, and contract services.			

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**WATER DIVISION**

**PAGE 18b**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b><u>OPERATING EXPENSE (Continued)</u></b>			
<b>Administrative &amp; General Expense</b>			
Administrative and General Salaries	4,494	4,825	331
Administration Expenses Transferred to Capital	(2,000)	(1,621)	379
Pension Expense	4,165	4,111	(54)
Other Active & Retiree Benefits	8,961	8,827	(134)
Other Post Employment Benefits	777	769	(8)
Injuries and Damages	1,395	1,513	118
Miscellaneous General Expenses <sup>(2)</sup>	3,324	3,654	330
Office Supplies and Expenses	1,515	1,745	230
Outside Services Employed	6,597	6,907	310
Property Insurance	440	592	152
Rents-Miscellaneous	4,905	3,493	(1,412)
<b>Total Administrative &amp; General Expense</b>	<b>34,573</b>	<b>34,815</b>	<b>242</b>
 <b>OPERATING EXPENSE</b>	 <b>71,021</b>	 <b>74,743</b>	 <b>3,722</b>
<b><u>MAINTENANCE EXPENSE</u></b>			
<b>Production Expense</b>			
Maintenance of Pumping Equipment	791	875	84
Maintenance of Water Treatment Equipment	1,486	1,570	84
Maintenance of Wells	1,034	1,036	2
Maintenance Supervision and Engineering	109	109	-
<b>Total Production Expense</b>	<b>3,420</b>	<b>3,590</b>	<b>170</b>
<b>Distribution Expense</b>			
Maintenance of Hydrants	479	537	58
Maintenance of Meters	3,840	3,460	(380)
Maintenance of Miscellaneous Distribution Plant	30	42	12
Maintenance of Services	1,091	1,447	356
Maintenance of Transmission and Distribution Mains	4,240	3,920	(320)
<b>Total Distribution Expense</b>	<b>9,680</b>	<b>9,406</b>	<b>(274)</b>
<b>Administrative &amp; General Expense</b>			
Maintenance of General Plant	-	1,565	1,565
Facilities Maintenance Expense	1,796	2,066	270
<b>Total Administrative &amp; General Expense</b>	<b>1,796</b>	<b>3,631</b>	<b>1,835</b>
 <b>MAINTENANCE EXPENSE</b>	 <b>14,896</b>	 <b>16,627</b>	 <b>1,731</b>
<b><u>OTHER OPERATING EXPENSE</u></b>			
Depreciation Expense	11,686	11,904	218
Payment in Lieu of Taxes	2,500	2,500	-
F.I.C.A. Taxes	504	485	(19)
Amortization of SCBPU Acquisition Adjustments	-	-	-
Amortization of Legacy Meters	397	493	96
<b>OTHER OPERATING EXPENSE</b>	<b>15,087</b>	<b>15,382</b>	<b>295</b>
 <b>TOTAL OPERATING EXPENSE</b>	 <b>101,004</b>	 <b>106,752</b>	 <b>5,748</b>
<sup>(2)</sup> Includes, but not limited to, the following items: Mail distribution, property appraisals, security and janitorial services, and fuel use by MLGW.			

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2020 THROUGH 2021**

**WATER DIVISION**

**PAGE 18c**

DESCRIPTION	THOUSANDS OF DOLLARS		
	2020 BUDGET	2021 BUDGET	DIFFERENCE
<b>INCOME</b>			
Operating Income	4,899	14,259	9,360
Other Income			
Revenues from Sinking & Other Funds-Interest Income	200	501	301
Medicare Part D Refund	100	92	(8)
Miscellaneous Non-Operating Income	500	462	(38)
Total Other Income	800	1,055	255
Reduction of Plant Cost Recovered through CIAC	(2,975)	(4,604)	(1,629)
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>2,724</b>	<b>10,710</b>	<b>7,986</b>
<b>DEBT EXPENSE</b>			
Interest Expense - Long-Term Debt			
Interest on Ltd - Series 2014	455	464	9
Interest on Ltd - Series 2016	829	793	(36)
Interest on Ltd - Series 2017	891	863	(28)
Interest on Ltd - Series 2020	2,437	2,629	192
Total Interest Expense - Long-Term Debt	4,612	4,749	137
Amortization of Debt Discount & Expense			
Amortization of Debt Disc & Exp - Series 2014	(51)	(49)	2
Amortization of Debt Disc & Exp - Series 2016	(170)	(163)	7
Amortization of Debt Disc & Exp - Series 2017	(188)	(183)	5
Amortization of Debt Disc & Exp - Series 2020	-	(658)	(658)
Total Amortization of Debt Discount & Expense	(409)	(1,053)	(644)
<b>TOTAL DEBT EXPENSE</b>	<b>4,203</b>	<b>3,696</b>	<b>(507)</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>(1,479)</b>	<b>7,014</b>	<b>8,493</b>
Contributions in Aid of Construction	2,975	4,604	1,629
<b>CHANGE IN NET POSITION</b>	<b>1,496</b>	<b>11,618</b>	<b>10,122</b>

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SOURCE AND APPLICATION OF FUNDS  
2021 BUDGET  
(THOUSANDS OF DOLLARS)

WATER DIVISION

PAGE 19

		REF. NO.
<b><u>SOURCE OF FUNDS:</u></b>		
<b>FROM OPERATIONS:</b>		
Change in Net Position	11,618	19-1
Non-Cash Charges to Income:		
Depreciation Charged to Operating Income	11,904	19-2
Depreciation Charged to Other Accounts	311	19-3
Amortization of Legacy Meters	493	19-4
<b>TOTAL FUNDS FROM OPERATIONS</b>	<b>24,326</b>	
Salvage	72	19-5
Financing: 2020 Bond Issuance	16,493	19-6
<b>TOTAL FUNDS AVAILABLE</b>	<b>40,891</b>	
<b><u>APPLICATION OF FUNDS:</u></b>		
Capital Expenditures	35,636	19-7
Costs of Removal and Other Charges to the Reserve for Depreciation	524	19-8
Retirement of Long-Term Debt	4,731	19-9
<b>TOTAL APPLICATION OF FUNDS</b>	<b>40,891</b>	
<b>INCREASE (DECREASE) IN WORKING CAPITAL</b>	<b>(0)</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES COMPARISON  
FOR CALENDAR YEAR OF 2021

WATER DIVISION

PAGE 20

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2019 ACTUAL	2020 BUDGET	2021 BUDGET	
<b>PRODUCTION SYSTEM</b>				
WATER - PUMPING STATIONS	2,759	7,299	7,804	20-1
WATER - OVERHEAD STORAGE TANKS	381	950	-	20-2
WATER - UNDERGROUND STORAGE RESERVOIRS	-	4,000	7,150	20-3
WATER - PRODUCTION WELLS	1,269	4,323	4,868	20-4
WATER - LAND PURCHASE	2	75	75	20-5
WATER- OPERATIONS MAINTENANCE	561	1,000	1,000	20-6
Contingency Fund - Production System	-	50	50	20-7
SUBTOTAL - PRODUCTION SYSTEM	4,972	17,697	20,947	
WATER - BUILDINGS & STRUCTURES	1,034	6	807	20-8
TOTAL PROD. SYSTEM - BLDGS. & STRUCT.	6,006	17,703	21,754	
<b>DISTRIBUTION SYSTEM</b>				
WATER - RESIDENTIAL SERVICE IN S/D	202	338	167	20-9
WATER - RESIDENTIAL SERVICE NOT IN S/D	358	318	438	20-10
WATER - RESIDENTIAL S/D	221	246	158	20-11
WATER - APARTMENTS	28	50	17	20-12
WATER - GENERAL POWER SERVICE	2,941	3,546	5,141	20-13
WATER - RELOCATE AT CUSTOMER REQUEST	206	282	1,210	20-14
WATER - STREET IMPROVEMENTS	657	2,820	2,575	20-15
WATER - NEW WATER MAIN	1,140	3,089	2,339	20-16
WATER- LEAD SERVICE REPLACEMENT	26	2,501	2,500	20-17
WATER - PURCHASE OF METERS	2,837	572	1,637	20-18
WATER - PLANNED MAINTENANCE	2,796	3,000	3,000	20-19
WATER - EMERGENCY MAINTENANCE	2,922	3,212	3,265	20-20
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC)	(3,019)	(2,975)	(4,604)	20-21
TOTAL - DISTRIBUTION SYSTEM	11,315	16,999	17,843	
<b>GENERAL PLANT</b>				
WATER - BUILDINGS & STRUCTURES	-	713	1,528	20-22
WATER - SECURITY AUTOMATION	428	245	169	20-23
WATER - FLEET CAPITAL POWER OPERATED EQUIP	29	86	24	20-24
WATER - FLEET CAPITAL WATER TRANSPORTATION EQUIP	168	1,731	2,778	20-25
WATER- IS/IT PROJECTS WATER		250	250	20-26
WATER TOOLS & EQUIPMENT	(48)	-		20-27
WATER - LAB EQUIPMENT	3	355		20-28
WATER - CONTINGENCY FUND	-	200	200	20-29
TOTAL - GENERAL PLANT	580	3,580	4,949	
<b>TOTAL - WATER DIVISION</b>	17,901	38,282	44,546	
Delayed Cost Allocations	(685)	(7,657)	(8,910)	20-30
<b>TOTAL - WATER DIVISION</b>	17,216	30,625	35,636	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

WATER DIVISION

PAGE 21

DESCRIPTION	IN	
	BUDGET YEAR	REF. NO.
<b><u>PRODUCTION SYSTEM</u></b>		
<b><u>PUMPING STATIONS</u></b>		
Allen Pumping Station		
Medium Voltage Breaker & Switchgear Replacements (CO)	2,000,000	21-1
Station Rehabilitation	700,000	21-2
Install Distributed Process Control System Replacement	340,000	21-3
Dedicated Well Electric Circuit Replacement	100,000	21-4
Engineer Distributed Process Control System Replacement	40,000	21-5
Total Allen Pumping Station	3,180,000	
Davis Pumping Station		
Station Rehabilitation (CO)	200,000	21-6
Total Davis Pumping Station	200,000	
Lichterman Pumping Station		
Install Distributed Process Control System Replacement	800,000	21-7
Engineer Distributed Process Control System Replacement	30,000	21-8
Total Lichterman Pumping Station	830,000	
Mallory Pumping Station		
Generator Replacement	160,000	21-9
Filter Media Replacement	143,750	21-10
Total Mallory Pumping Station	303,750	
McCord Pumping Station		
Filter Media Replacement (CO)	200,000	21-11
Total McCord Pumping Station	200,000	
Morton Pumping Station		
VFD, Motor & Transformer Replacements	400,000	21-12
Station Rehabilitation (CO)	200,000	21-13
Total Morton Pumping Station	600,000	
Shaw Pumping Station		
VFD, Motor & Transformer Replacements	990,000	21-14
Total Shaw Pumping Station	990,000	
Miscellaneous Pumping Facilities		
Engineering Services Contract (CO)	500,000	21-15
Water Operations Capital Items (CO)	1,000,000	21-16
Total Miscellaneous Pumping Facilities	1,500,000	
<b>TOTAL PUMPING STATIONS</b>	<b>7,803,750</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2021

WATER DIVISION

PAGE 22

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>UNDERGROUND STORAGE RESERVOIRS</u></b>		
Mallory Pumping Station Construct Wash Water Recovery Basin Replacement	7,150,000	22-1
Total Underground Storage Reservoirs	7,150,000	
<b><u>PRODUCTION WELLS</u></b>		
Mallory Pumping Station - Construct/Replace Well	1,455,900	22-2
Morton Pumping Station - Construct/Replace Well	1,455,900	22-3
Well Failures	1,455,900	22-4
Abandon Wells	500,000	22-5
TOTAL PRODUCTION WELLS	4,867,700	
<b><u>OPERATIONS MAINTENANCE</u></b>	1,000,000	22-6
<b><u>LAND PURCHASE</u></b>	75,000	22-7
CONTINGENCY FUND - PRODUCTION SYSTEM	50,000	22-8
TOTAL PRODUCTION SYSTEM	20,946,450	
<b><u>DISTRIBUTION SYSTEM - MAJOR PROJECTS</u></b>		
<b><u>NEW WATER MAIN</u></b>		
Large Main Extensions	500,000	22-9
Collecting Main Installation	500,000	22-10
Major Valve Replacements/Additions	498,801	22-11
Main Replacement Projects	400,000	22-12
Miscellaneous Projects - Reimbursable	315,000	22-13
Miscellaneous Projections	75,000	22-14
Minor System Improvements	50,000	22-15
TOTAL NEW WATER MAIN	2,338,801	
<b><u>STREET IMPROVEMENTS</u></b>		
City of Memphis Projects	1,375,000	22-16
TDOT Projects	450,000	22-17
City of Bartlett Projects	425,000	22-18
Shelby County Projects	250,000	22-19
Miscellaneous Projections	75,000	22-20
TOTAL STREET IMPROVEMENTS	2,575,000	
TOTAL DISTRIBUTION SYSTEM - MAJOR PROJECTS	4,913,801	

**WATER DIVISION**

DESCRIPTION	IN	REF.
	BUDGET YEAR	
<b><u>DISTRIBUTION SYSTEM - MAJOR PROJECTS CONT.</u></b>		
<b><u>LEAD REPLACEMENT</u></b>	<b>2,500,000</b>	23-1
<b>GENERAL PLANT</b>		
<b>BUILDINGS &amp; STRUCTURES</b>		
<b>MLGW UNIVERSITY</b>		
Training Roadway	713,000	23-2
Storage Building for Electric Training Trailer	60,000	23-3
<b>Goodlett Property</b>		
Replace HVAC roof top Units	755,000	23-4
<b>TOTAL BUILDINGS &amp; STRUCTURES</b>	<b>1,528,000</b>	
<b><u>IS/IT PROJECT</u></b>		
Laboratory Information Management System replacement	250,000	23-5
<b>TOTAL IS/IT PROJECT</b>	<b>250,000</b>	
<b>WATER - SECURITY AUTOMATION</b>	<b>169,120</b>	23-6
<b>WATER - FLEET CAPITAL POWER OPERATED EQUIP</b>	<b>24,039</b>	23-7
<b>WATER - FLEET CAPITAL WATER TRANSPORTATION EQUIP</b>	<b>2,777,629</b>	23-8
<b>CONTINGENCY FUNDS - GENERAL PLANT</b>	<b>200,000</b>	23-9
<b>TOTAL GENERAL PLANT</b>	<b>4,948,788</b>	



MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL CARRYOVER SUMMARY\*  
FOR CALENDAR YEAR OF 2021

WATER DIVISION

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<u>CAPITAL CARRYOVER CATEGORY</u>	<u>CARRYOVER AMOUNT</u>
Production	6,298,750
Distribution	1,300,000
Power Transportation Equipment	1,781,446
Buildings & Structures	713,000
IS/IT Projects	<u>250,000</u>
<b>TOTAL CAPITAL CARRYOVER SUMMARY</b>	<b><u>10,343,196</u></b>

\*Carryover items constitute the funding necessary for capital projects or purchases not completed during the prior budget year. This would include projects which may have been delayed, large projects requiring multiple years to complete, or commodities ordered but not received. These items are part of the total 2021 Budget.



## 2021 - 2025 CAPITAL IMPROVEMENT PROGRAM



**2021 ELECTRIC FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM**

DESCRIPTION	2020 PROJECTION	2021 BUDGET	2022 PROJECTION	2023 PROJECTION	2024 PROJECTION	2025 PROJECTION
<b>SUBSTATION AND TRANSMISSION</b>						
Substation	\$ 9,496,636	\$ 12,793,996	\$ 20,593,199	\$ 21,715,329	\$ 9,015,330	\$ 6,781,996
Substation Circuit Breakers	\$ 3,781,091	\$ 3,442,233	\$ 3,350,000	\$ 3,350,000	\$ 3,350,000	\$ 3,350,000
Substation Transformers	\$ 6,731,469	\$ 12,033,970	\$ 11,734,940	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000
Transmission Lines	\$ 1,175,333	\$ 2,910,250	\$ 4,923,463	\$ 5,300,000	\$ 2,000,000	\$ 2,000,000
CONTRIBUTIONS IN AID OF CONSTRUCTION		\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL - SUBSTATION &amp; TRANSMISSION</b>	<b>\$ 21,184,529</b>	<b>\$ 31,180,449</b>	<b>\$ 40,601,602</b>	<b>\$ 37,865,329</b>	<b>\$ 21,865,330</b>	<b>\$ 19,631,996</b>
<b>DISTRIBUTION SYSTEM</b>						
Apartments	\$ 739,591	\$ 754,303	\$ 769,470	\$ 784,860	\$ 800,557	\$ 816,568
Def. Cable/Trans Replace	\$ 2,400,000	\$ 11,800,000	\$ 11,800,000	\$ 11,800,000	\$ 11,800,000	\$ 11,800,000
Demolition	\$ 34,124	\$ 70,456	\$ 71,865	\$ 73,302	\$ 74,768	\$ 76,264
Emergency Maintenance	\$ 4,365,001	\$ 5,957,710	\$ 6,076,011	\$ 6,197,531	\$ 6,321,482	\$ 6,447,912
General Power Service	\$ 7,636,601	\$ 8,614,333	\$ 19,344,120	\$ 16,451,002	\$ 12,310,022	\$ 12,421,223
General Power Service S/D	\$ 384,742	\$ 392,437	\$ 400,286	\$ 408,291	\$ 416,457	\$ 424,786
Mobile Home Park	\$ 1,551	\$ 1,582	\$ 1,614	\$ 1,646	\$ 1,679	\$ 1,712
Leased Outdoor Lighting	\$ 842,528	\$ 859,378	\$ 876,566	\$ 894,097	\$ 911,979	\$ 930,218
Distribution Automation	\$ 2,500,000	\$ 10,000,000	\$ 32,000,000	\$ 32,000,000	\$ 32,000,000	\$ 32,000,000
Line Reconstruction	\$ 1,050,000	\$ 3,625,000	\$ 3,375,000	\$ 3,375,000	\$ 3,375,000	\$ 3,375,000
Multiple-Unit Gen Power	\$ 70,723	\$ 72,138	\$ 73,581	\$ 75,052	\$ 76,553	\$ 78,084
New Circuits	\$ 2,447,410	\$ 4,475,000	\$ 6,500,000	\$ 6,500,000	\$ 2,500,000	\$ 1,000,000
Voltage Conversion	\$ -	\$ -	\$ 20,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Operations Maintenance	\$ 207,109	\$ -	\$ -	\$ -	\$ -	\$ -
Planned Maintenance	\$ 6,172,506	\$ 9,675,720	\$ 9,869,234	\$ 10,066,619	\$ 10,267,951	\$ 10,473,310
Distribution Pole Replacement	\$ 1,100,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Tree Trimming	\$ -	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Relocate at Customer Req	\$ 1,630,000	\$ 3,699,660	\$ 6,762,114	\$ 6,817,356	\$ 2,873,704	\$ 2,931,178
Residential S/D	\$ 67,660	\$ 69,013	\$ 70,393	\$ 71,801	\$ 73,237	\$ 74,702
Residential Svc in S/D	\$ 171,235	\$ 174,659	\$ 178,152	\$ 181,715	\$ 185,350	\$ 189,057
Residential Svc not S/D	\$ 1,281,434	\$ 1,307,062	\$ 1,333,203	\$ 1,359,867	\$ 1,387,065	\$ 1,414,806
JT-Apartments	\$ 51,473	\$ 52,502	\$ 53,552	\$ 54,623	\$ 55,716	\$ 56,830
JT-Resident S/D	\$ 1,847,301	\$ 1,884,247	\$ 1,921,932	\$ 1,960,371	\$ 1,999,578	\$ 2,039,570
JT-Resident Svc not S/D	\$ 2,998	\$ 3,058	\$ 3,119	\$ 3,182	\$ 3,245	\$ 3,310
JT-Residential Svc in S/D	\$ 947,824	\$ 966,780	\$ 986,116	\$ 1,005,838	\$ 1,025,955	\$ 1,046,474
Shared Use contract	\$ -	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Storm Restoration	\$ 2,710,024	\$ -	\$ -	\$ -	\$ -	\$ -
Duct Line Lease	\$ -	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Street Improvements	\$ 4,600,000	\$ 8,247,955	\$ 6,450,000	\$ 1,750,000	\$ 1,300,000	\$ 1,300,000
Street Light Maintenance	\$ 1,753,542	\$ 2,080,800	\$ 2,122,416	\$ 2,164,864	\$ 2,208,162	\$ 2,252,325
Street Lights Install	\$ 2,367,132	\$ 5,330,000	\$ 5,585,000	\$ 4,850,000	\$ 8,050,000	\$ 5,750,000
Temporary Service	\$ 609,195	\$ 621,379	\$ 633,807	\$ 646,483	\$ 659,412	\$ 672,601
Previously Capitalized items - Capacitor Banks	\$ -	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Previously Capitalized Items - Transformers	\$ 5,500,000	\$ 6,154,680	\$ 6,277,774	\$ 6,403,329	\$ 6,531,396	\$ 6,662,024
Previously Capitalized Items - Meters	\$ 887,754	\$ 2,118,000	\$ 1,832,000	\$ 1,599,000	\$ 1,906,000	\$ 2,292,000
Contributions in Aid of Construction	\$ (8,495,113)	\$ (18,118,403)	\$ (26,313,328)	\$ (24,170,432)	\$ (17,582,840)	\$ (17,799,497)
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>\$ 45,884,346</b>	<b>\$ 74,724,448</b>	<b>\$ 102,908,996</b>	<b>\$ 98,160,399</b>	<b>\$ 96,367,427</b>	<b>\$ 93,565,455</b>

**2021 ELECTRIC FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM**

DESCRIPTION	2020 PROJECTION	2021 BUDGET	2022 PROJECTION	2023 PROJECTION	2024 PROJECTION	2025 PROJECTION
<b>GENERAL PLANT</b>						
Purchase of Land	\$ -	\$ 1,200,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000
Buildings/Structures	\$ 354,930	\$ 1,065,300	\$ 7,811,100	\$ 22,499,000	\$ 19,719,500	\$ 300,000
Capital Security Automation	\$ 2,692,692	\$ 4,349,477	\$ 2,622,951	\$ 288,403	\$ 300,000	\$ 100,000
Lab and Test	\$ 268,380	\$ 216,702	\$ 227,537	\$ 238,914	\$ 250,860	\$ 263,403
Tools and Equipment	\$ 34,494	\$ -	\$ 36,250	\$ 38,063	\$ 41,964	\$ 44,062
Utility Monitoring	\$ 1,091,018	\$ 907,890	\$ 835,000	\$ 550,000	\$ 600,000	\$ 1,150,000
Communication Equip	\$ -	\$ 95,040	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Communication Towers	\$ 25,280	\$ 14,003,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
Telecommunication Network	\$ 2,578,000	\$ 2,834,400	\$ 2,216,000	\$ 2,216,000	\$ 2,216,000	\$ 2,216,000
Fleet Capital Power Operated Equipment	\$ 307,746	\$ 2,915,790	\$ 3,003,264	\$ 3,093,362	\$ 3,186,163	\$ 3,281,748
Transportation Equipment	\$ 951,175	\$ 2,938,879	\$ 3,027,046	\$ 3,117,857	\$ 3,211,393	\$ 3,307,735
Data Processing	\$ 584,464	\$ 7,126,827	\$ 4,705,000	\$ 6,945,000	\$ 10,445,000	\$ -
IS/IT Projects	\$ -	\$ 4,479,577	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ -
CIS Development	\$ 4,217,521	\$ -	\$ -	\$ -	\$ -	\$ -
Business Continuity	\$ 1,157,969	\$ 1,988,927	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ -
Contingency Fund - General Plant	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
<b>TOTAL - GENERAL PLANT</b>	<b>\$ 14,263,669</b>	<b>\$ 44,321,810</b>	<b>\$ 30,034,148</b>	<b>\$ 44,536,599</b>	<b>\$ 45,520,879</b>	<b>\$ 12,112,947</b>
Delayed Cost Allocations	\$ -	\$ (30,045,341)	\$ (34,708,949)	\$ (36,112,465)	\$ (32,750,727)	\$ (25,062,080)
<b>TOTAL - ELECTRIC DIVISION</b>	<b>\$ 81,332,544</b>	<b>\$ 120,181,366</b>	<b>\$ 138,835,797</b>	<b>\$ 144,449,861</b>	<b>\$ 131,002,909</b>	<b>\$ 100,248,319</b>

**2021 GAS FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM**

DESCRIPTION	2020 PROJECTION	2021 BUDGET	2022 PROJECTION	2023 PROJECTION	2024 PROJECTION	2025 PROJECTION
<b>PRODUCTION SYSTEM</b>						
LNG - Processing Facilities	\$ 227,000	\$ 600,000	\$ 175,000	\$ 125,000	\$ 100,000	\$ 1,425,000
CNG Stations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL PRODUCTION SYSTEM	\$ 227,000	\$ 600,000	\$ 175,000	\$ 125,000	\$ 100,000	\$ 1,425,000
<b>DISTRIBUTION SYSTEM</b>						
Apartments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demolition	\$ 79,455	\$ -	\$ -	\$ -	\$ -	\$ -
Emergency Maintenance	\$ 342,486	\$ 1,546,942	\$ 1,578,104	\$ 1,609,666	\$ 1,641,859	\$ 1,674,696
Gas Main-Svc Repl (DOT)	\$ 4,859,000	\$ 5,765,000	\$ 5,415,000	\$ 5,165,000	\$ 5,165,000	\$ 5,165,000
Gate Stations	\$ 37,228	\$ -	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -
General Power S/D	\$ 96,297	\$ 98,223	\$ 100,188	\$ 102,191	\$ 104,235	\$ 106,320
General Power Service	\$ 991,865	\$ 2,841,703	\$ 3,231,937	\$ 1,052,575	\$ 1,073,627	\$ 1,395,099
Multiple-Unit Gen Power	\$ 31,036	\$ 32,289	\$ 32,289	\$ 32,935	\$ 33,594	\$ 34,266
New Gas Main	\$ 1,062,933	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Trans Pipeline/Facilities	\$ 1,720,000	\$ 3,300,000	\$ 1,400,000	\$ 1,400,000	\$ 13,400,000	\$ 1,400,000
Purchase of Land	\$ 4,105	\$ 375,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Planned Maintenance	\$ 2,176,260	\$ 4,896,000	\$ 4,993,920	\$ 5,093,798	\$ 5,195,674	\$ 5,299,588
Regulator Stations	\$ 1,000,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000
Relocate at Customer Req	\$ 178,361	\$ 185,567	\$ 185,567	\$ 189,278	\$ 193,063	\$ 196,925
Residential Svc in S/D	\$ 578	\$ 590	\$ 602	\$ 614	\$ 626	\$ 638
Residential Svc not S/D	\$ 708,227	\$ 722,392	\$ 736,839	\$ 751,576	\$ 766,608	\$ 781,940
Residential Svc S/D	\$ 8,585	\$ 8,757	\$ 8,932	\$ 9,111	\$ 9,293	\$ 9,479
Street Improvements	\$ 2,500,000	\$ 4,190,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
JT-Apartments	\$ 11,830	\$ 12,067	\$ 12,308	\$ 12,554	\$ 12,805	\$ 13,062
JT-Resident S/D	\$ 716,456	\$ 730,785	\$ 745,401	\$ 760,309	\$ 775,515	\$ 791,025
JT-Resident Svc not S/D	\$ 864	\$ 881	\$ 899	\$ 917	\$ 935	\$ 954
JT-Resident in S/D	\$ 457,032	\$ 466,173	\$ 475,497	\$ 485,006	\$ 494,707	\$ 504,601
Previously Capitalized Items - Meters & Metering Equipment	\$ 1,239,161	\$ 3,411,000	\$ 2,324,000	\$ 2,370,000	\$ 2,418,000	\$ 2,466,000
Contributions in Aid of Construction	\$ (750,000)	\$ (3,953,638)	\$ (4,366,110)	\$ (2,209,433)	\$ (2,253,621)	\$ (2,598,694)
TOTAL DISTRIBUTION SYSTEM	\$ 17,471,759	\$ 25,979,731	\$ 21,300,371	\$ 21,251,099	\$ 31,956,921	\$ 20,165,899
<b>GENERAL PLANT</b>						
Buildings/Structures	\$ 561,056	\$ 3,845,000	\$ 2,866,140	\$ 1,072,650	\$ 7,106,629	\$ 18,900,000
Capital Security Automation	\$ 54,000	\$ 959,623	\$ 119,497	\$ 172,800	\$ 227,063	\$ 80,000
Furniture & Fixtures	\$ 466,560	\$ -	\$ -	\$ -	\$ -	\$ -
Tools and Equipment	\$ 123,169	\$ 36,250	\$ 36,250	\$ 38,063	\$ 39,966	\$ 41,964
Tools and Equipment - Common	\$ 331,826	\$ 31,652	\$ 36,250	\$ 38,063	\$ 39,966	\$ 41,964
Fleet Capital Transportation & Power Operated Equipment - Gas	\$ 1,234,261	\$ 5,060,286	\$ 5,212,095	\$ 5,368,458	\$ 5,529,512	\$ 5,695,397
Fleet Capital Transportation Equipment & Power Operated Equipment - Common	\$ 158,801	\$ 4,208,895	\$ 4,335,162	\$ 4,465,217	\$ 4,599,174	\$ 4,737,149
Data Processing	\$ 97,492	\$ 158,387	\$ -	\$ -	\$ -	\$ -
Gas Miscellaneous		\$ 983,000				
Contingency Fund - General Plant	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
TOTAL - GENERAL PLANT	\$ 3,027,164	\$ 15,483,094	\$ 12,805,394	\$ 11,355,250	\$ 17,742,309	\$ 29,696,474
Delayed Cost Allocations	\$ -	\$ (8,412,565)	\$ (6,856,153)	\$ (6,546,270)	\$ (9,959,846)	\$ (10,257,475)
<b>TOTAL - GAS DIVISION</b>	<b>\$ 20,725,923</b>	<b>\$ 33,650,260</b>	<b>\$ 27,424,612</b>	<b>\$ 26,185,079</b>	<b>\$ 39,839,383</b>	<b>\$ 41,029,898</b>

**2021 WATER FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM**

DESCRIPTION	2020 PROJECTION	2021 BUDGET	2022 PROJECTION	2023 PROJECTION	2024 PROJECTION	2025 PROJECTION
<b>PRODUCTION SYSTEM</b>						
Overhead Storage Tanks	\$ 103,000	\$ -	\$ -	\$ -	\$ -	\$ -
Production Wells	\$ 2,510,450	\$ 4,867,700	\$ 6,323,600	\$ 6,323,600	\$ 6,323,600	\$ 6,323,600
Pumping Stations	\$ 3,670,000	\$ 7,803,750	\$ 29,961,250	\$ 30,615,000	\$ 28,205,000	\$ 9,100,000
Underground Storage Reservoirs	\$ 250,000	\$ 7,150,000	\$ -	\$ -	\$ -	\$ 300,000
Purchase of Land	\$ -	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Operations Maintenance	\$ 560,839	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Contingency Fund - Production system	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
SUBTOTAL - PRODUCTION SYSTEM	\$ 7,094,289	\$ 20,946,450	\$ 37,409,850	\$ 38,063,600	\$ 35,653,600	\$ 16,848,600
SUBTOTAL - BLDGS. AND STRUCTURES	\$ -	\$ 807,000	\$ 4,410,000	\$ 2,225,000	\$ 238,000	\$ 120,000
TOTAL PROD. SYSTEM w/BLDGS & STRUCT.	\$ 7,094,289	\$ 21,753,450	\$ 41,819,850	\$ 40,288,600	\$ 35,891,600	\$ 16,968,600
<b>DISTRIBUTION SYSTEM</b>						
Apartments	\$ 16,710	\$ 17,044	\$ 17,385	\$ 17,732	\$ 18,087	\$ 18,449
Emergency Maintenance	\$ 2,617,979	\$ 3,265,351	\$ 3,330,385	\$ 3,396,992	\$ 3,464,932	\$ 3,534,231
General Power Service	\$ 3,079,630	\$ 5,141,223	\$ 3,204,047	\$ 3,268,128	\$ 3,333,491	\$ 3,400,161
New Water Main	\$ 2,500,000	\$ 2,338,801	\$ 2,343,777	\$ 2,348,754	\$ 2,348,730	\$ 2,348,705
Lead Service Replacement	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000
Planned Maintenance	\$ 2,448,587	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Relocate at Customer Req	\$ 205,973	\$ 1,210,092	\$ 214,294	\$ 218,580	\$ 222,952	\$ 227,411
Residential S/D	\$ 154,454	\$ 157,543	\$ 160,694	\$ 163,908	\$ 167,186	\$ 170,530
Residential Svc in S/D	\$ 163,238	\$ 166,503	\$ 169,833	\$ 173,229	\$ 176,694	\$ 180,228
Residential Svc not S/D	\$ 429,833	\$ 438,430	\$ 447,199	\$ 456,143	\$ 465,265	\$ 474,571
Street Improvements	\$ 1,225,000	\$ 2,575,000	\$ 2,350,000	\$ 2,350,000	\$ 2,350,000	\$ 2,350,000
Previously Capitalized Items - Meters	\$ 812,933	\$ 1,637,000	\$ 1,670,000	\$ 1,703,000	\$ 1,737,000	\$ 1,772,000
Contributions in Aid of Construction	\$ (2,668,162)	\$ (4,603,781)	\$ (3,058,743)	\$ (3,108,518)	\$ (3,149,389)	\$ (3,206,377)
TOTAL - DISTRIBUTION SYSTEM	\$ 13,486,175	\$ 17,843,207	\$ 16,348,870	\$ 16,487,949	\$ 16,634,949	\$ 16,769,908
<b>GENERAL PLANT</b>						
Buildings/Structures	\$ -	\$ 1,528,000	\$ 1,430,000	\$ -	\$ -	\$ -
Purchase of Property	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Security Automation	\$ -	\$ 169,120	\$ 95,040	\$ 82,080	\$ 44,280	\$ 51,840
Fleet Capital Power Operated Equipment	\$ 697	\$ 24,039	\$ 24,760	\$ 25,503	\$ 26,268	\$ 27,056
Transportation Equipment	\$ 35,703	\$ 2,777,629	\$ 2,860,958	\$ 2,946,786	\$ 3,035,190	\$ 3,126,246
IS/IT Projects Water	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -
Tools and Equipment	\$ 20,899	\$ -	\$ 36,250	\$ 38,063	\$ 39,966	\$ 41,964
Lab Equipment	\$ 355,000	\$ -	\$ -	\$ -	\$ -	\$ -
Contingency Fund - General Plant	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
TOTAL - GENERAL PLANT	\$ 3,412,299	\$ 4,948,787	\$ 4,647,008	\$ 3,292,432	\$ 3,345,703	\$ 3,447,105
Delayed Cost Allocations		\$ (8,909,089)	\$ (12,563,145)	\$ (12,013,796)	\$ (11,174,450)	\$ (7,437,123)
<b>TOTAL - WATER DIVISION</b>	\$ 23,992,763	\$ 35,636,355	\$ 50,252,582	\$ 48,055,184	\$ 44,697,801	\$ 29,748,491

**NOTES FOR PAGE 3—Capital Expenditures Budget**

**Total Capital Expenditures**

3-1	Total Capital Expenditures	Expected capital spend in 2021 budget year.
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## NOTES FOR PAGE 4—INCOME &amp; EXPENSE COMPARISON

**Operating Revenue**

4-1	<b>Sales Revenue</b>	This account includes projected revenue from the sale of electricity to the residential, commercial, industrial, outdoor lighting and traffic signal, and interdepartmental customer classes.
4-2	<b>Revenue Adjustment for Uncollectibles</b>	Per Governmental Accounting Standards Board (GASB) 34 requirements, bad debt expense must be shown as a reduction of revenue. This is the amount that will not be collected due to customer's inability to pay.
4-3	<b>Non-Sales Revenue</b>	This account includes revenue from forfeited discounts (extra charges for payments received after net due date), plus rent charged for Electric Division property that is used by the Gas and Water Divisions, and other miscellaneous revenue (e.g., fees for connecting service).

**Operating Expense**

4-4	<b>Purchased Power</b>	This account includes the cost of electricity purchased from TVA for resale to customers.
4-5	<b>Transmission Expense</b>	This account includes the cost of labor and expenses incurred in the supervision and operation of the transmission system. Included are load dispatching operations, transmission substations, switching stations, overhead and underground line expenses, and miscellaneous transmission expenses. Included in this account are inspecting and testing circuit breakers, switches, breakers, load testing of circuits, line patrolling, and routine inspection of manholes, conduit, network and transformer vaults.
4-6	<b>Distribution Expense</b>	This account includes the cost of labor and expenses incurred in the supervision and direct labor of the operation of the distribution system. Included are direct switching, arranging and controlling clearances for construction, maintenance test and emergencies, communication services provided for system control purposes and controlling system voltages. Also included are the expenses for operation of the overhead and underground distribution lines and stations, street lighting, meter expenses, work on customer installations in inspecting premises and in rendering services to customers, miscellaneous expenses and rent.
4-7	<b>Customer Accounts Expense</b>	This account includes the cost of labor, materials and expenses used in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints. It also includes meter reading expenses.
4-8	<b>Customer Service and Information Expense</b>	This account includes the cost of labor, materials and expenses incurred in providing instructions or assistance to customers, the object of which is to encourage safe, efficient, and economical use of services, and activities which convey information in utilizing electric services to protect health and safety, to encourage environmental protection, to use electrical equipment safely and economically and to conserve electric energy.
4-9	<b>Sales Expense</b>	This account includes the cost of labor, materials and expenses incurred in promotional, demonstrating and selling activities, advertising designed to promote or retain the use of utility services and miscellaneous sales expense. Included are exhibitions, displays, lectures, engineering and technical advice, advertising in newspapers, periodicals, billboards, radio, etc., postage on direct mail advertising, printing booklets, bulletins, etc.
4-10	<b>Administrative and General Expense</b>	This account includes the compensation of board members, executives, and other administrative and general employees of the utility not chargeable directly to a particular operating function. It also includes the cost of insurance to protect the utility against physical plant losses, cost of reserve accruals to protect the utility against injuries and damage claims of employees or others, such as liability, property damage, casualty, and employee liability. Employee pensions and benefits including payments to pension funds, life insurance, group medical expenses, payments for accident, sickness, hospital and death benefits, and expenses in connection with educational and wellness activities are also included in this account. In accordance with GASB 45, <i>Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pension</i> , MLGW must recognize all post-employment benefits, such as medical insurance and life insurance, when earned, effective budget year 2007.

**Maintenance Expense**

4-11	<b>Transmission Expense</b>	This account includes the cost of labor, materials and expenses incurred in the maintenance of the
4-12	<b>Distribution Expense</b>	This account includes the cost of labor, materials, and expenses incurred in the maintenance of the distribution system, structures, plant, station equipment, overhead lines and underground lines, distribution line transformers, street lighting and signal systems, meters, and other miscellaneous distribution plant.
4-13	<b>Administrative and General Expense</b>	Please see Appendix 4-10.



## NOTES FOR PAGE 4—INCOME &amp; EXPENSE COMPARISON (Continued)

**Other Operating Expense**

4-14	<b>Depreciation Expense</b>	The purpose of depreciation is to allocate the original cost of a fixed asset over its estimated useful life. In a utility environment, the annual depreciation rate also takes into account the estimated salvage and cost of removal upon retirement.
4-15	<b>Payment in Lieu of Taxes</b>	Payment in lieu of taxes is the amount paid to the municipalities in which MLGW has plant. The formula for payment in lieu of taxes is based on the Municipal Electric System Tax Equivalent Law of 1987 and the Municipal Gas Equivalent Law which became effective July 1, 1988. The tax formula has two parts--net investment and revenue. The net investment includes plant in service and held for future use (net of depreciation), construction work-in-progress and materials inventory. The net investment is multiplied by an assessment ratio, the property tax rates for each governmental body, and an equalization rate set by the State. The revenue part of the formula is 4% of a three-year average of operating revenue less power cost.
4-16	<b>F.I.C.A. Taxes</b>	This represents the 1.45% Medicare portion of Social Security Tax which is required to be paid on all MLGW employees hired after 03-31-86.
4-17	<b>Amortization of Legacy Meters</b>	This account includes amortization charges related to expenditures on meters.
4-18	<b>Amortization of Software</b>	This account includes amortization charges related to expenditures on software.

**Income**

4-19	<b>Operating Income</b>	Operating income is equal to operating revenue less total operating expense.
4-20	<b>Other Income</b>	This consists primarily of investment income and property rentals and the electric prepayment agreement. It does not include any sales of electricity, gas or water.
4-21	<b>Reduction of Plant Recovered through CIAC</b>	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

**Debt Expense**

4-22	<b>Interest Expense - Existing Long-Term Debt</b>	Bond interest payments due 06-01-2021 and 12-01-2021 per the bond debt schedules are funded in equal monthly installments in 2021.
4-23	<b>Amortization of Debt Discount and Expense</b>	This represents the spreading of bond issuance costs over the life span of the bond series rather than recognizing such costs all at the time of sale.
4-24	<b>Contributions in Aid of Construction</b>	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

## NOTES FOR PAGE 5—SOURCES AND APPLICATION OF FUNDS

**Source of Funds**

5-1	Change in Net Position	Please see Budget page 4.
5-2	Depreciation Charged to Operating Income	Please see Appendix 4-14.
5-3	Depreciation Charged to Other Accounts	Depreciation charged to other accounts is the annual depreciation for transportation and power operated equipment. Depreciation on these plant items is charged to a clearing account and used in the equipment rate calculations.
5-4	Amortization of Legacy Meters	Non-cash expense related to amortization charges related to meter expenditures.
5-5	Amortization of Software	Non-cash expense related to amortization charges related to software expenditures.
5-6	Salvage	Salvage is the amount received for property retired from plant in service. The property may be sold for scrap or returned to stores inventory for reuse.
5-7	2020 Bond Issuance	Expected debt issuance in the Electric Division for the 2020 budget year.

**Application of Funds**

5-8	Capital Expenditures	Please see Budget page 6.
5-9	Retirement of Long-Term Debt	Bond principal amounts due 12-01-2020 per the bond debt schedules are funded in equal monthly
5-10	Pollution Remediation Liability	Per Governmental Accounting Standards Board (GASB) 49 requirements, obligations pertaining to

## NOTES FOR PAGE 6—CAPITAL EXPENDITURES

## Job Orders

6-1	Pole-Duct Use and Escorts	No expenditures planned for the 2021 budget year.
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## Substation and Transmission

6-2	Substation	Please see Appendix 7-1 through 7-17.
6-3	Substation Transformers Replacement	Please see Appendix 7-20 through 7-24.
6-4	Substation Circuit Breakers Replacement	Please see Appendix 7-25 through 7-38.
6-5	Transmission Lines	Please see Appendix 8-6 through 8-9.
6-6	Contributions in Aid of Construction	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

## Distribution System

## Major Projects

6-7	Residential Service in S/D	All subdivisions that are fed internally by overhead or underground electric primary lines.
6-8	Residential Service Not in S/D	Property not in subdivisions fed internally by overhead or underground electric primary lines.
6-9	Residential S/D	Other property not in subdivisions fed internally by overhead or underground electric primary lines.
6-10	Apartments	All apartments and mobile home communities that are fed internally by overhead or underground electric primary lines.
6-11	General Power Service	Commercial properties that are fed internally by overhead or underground electric primary lines
6-12	General Power S/D	Commercial properties in subdivisions that are fed internally by overhead or underground electric primary lines
6-13	Mobile Home Park	All apartments and mobile home communities that are fed internally by overhead or underground electric primary lines.
6-14	Temporary Service	Services used for temporary construction
6-15	Multiple Unit General Power	Commercial properties and apartments that are fed internally by overhead or underground electric primary lines
6-16	Relocate At Customer Request	This budget category provides for the expenses incurred at customers request for facilities to be relocated.
6-17	Street Improvements	This budget category provides for the expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated. Please see Appendix 8-18 through 8-25.
6-18	New Circuits	Please see Appendix 8-7 through 8-14 .
6-19	Voltage Conversion	This budget category describes projects whereby existing distribution lines are modified to have the system operated voltages converted from 12kv to 23kv.
6-20	Line Reconstruction/Remove Idle Facilities	This category describes projects whereby existing distribution lines are improved and/or removed. These projects can include instances where existing circuits are rebuilt to create ties to other circuits to improve reliability to customers; conductors are upgraded to increase the current carrying ability of the circuit; devices such as switches, voltage regulators, capacitors, or reclosers are added to a circuit to improve
6-21	Defect Cable/Feeder Cable Replacement	This category describes the systematic retrofitting of the Division's Underground Residential Distribution system. The cable is replaced as it reaches end-of-life as determined by in service failures. Obsolete transformers and other distribution hardware are also replaced in this category. Cable replacement was initiated in 1982.
6-22	Distribution Poles	The budget includes utility poles used to support overhead power lines and various other public utilities, such as electrical cable, fiber optic cable, and related equipment such as transformers and street lights.
6-23	Distribution Automation	To install communications and hardware to allow for remote/automated operation to provide for more advanced restoration capabilities.
6-24	Street Lights Install	The 2021 budget includes work necessary to provide street light maintenance in existing subdivisions, along roadways. Memphis city approvals and adjustments to lights in existing developments requested.
6-25	Demolition	No expenditures planned for the 2020 budget year.

## NOTES FOR PAGE 6–CAPITAL EXPENDITURES (Continued)

**Major Projects (Continued)**

6-26	Street Light Maintenance	The 2020 budget includes work necessary to provide street light maintenance in existing subdivisions, along roadways, Memphis city annexations, and adjustments to lights in existing developments requested by the cities throughout the year.
6-27	Planned Maintenance	Construction in minor work that arises daily. These are mainly calls that go through the Control Room, to include pole knockdowns, gas, and water leaks, etc.
6-28	Tree Trimming	Trim or remove trees interfering with overhead lines.
6-29	Operations Maintenance	No expenditures planned for the 2021 budget year.
6-30	Leased Outdoor Lighting (LOL)	LOL provides area and security lighting for residential, commercial and industrial customers in Memphis and Shelby County. LOL customers pay aid-to-construction for the installation of lighting fixtures and a monthly flat rate energy and facility fee. Services provided through LOL include engineering design of lighting systems to meet customer needs as well as building codes and standards. Installation and maintenance are handled through Distribution Support, using Division personnel and contracted labor.
6-31	Shared Use Contract	To account for small cell and communication pole attachments.
6-32	Storm Restoration	This category shows actual expenditures for previous years related to storm restoration efforts. MLGW does not budget for unexpected storm related expenses. These storms are generally large enough to cause major damage to our electric distribution system. Funds expensed in this category are reimbursable by the Federal Emergency Management Agency.
6-33	Duct Line Lease	To account for leasing available duct line for fiber cable.
6-34	Emergency Maintenance	Emergency maintenance is minor capital unplanned work that arises daily. These are mainly calls that go through the Control Room, such as pole knockdowns, gas or water leaks, etc.
6-35	JT-Residential Service in S/D	All subdivisions that are fed internally by underground electric primary lines and all subdivisions and apartments that are joint trench (underground electric primary and gas in the same trench).
6-36	JT-Residential Service Not in S/D	All subdivisions that are fed internally by underground electric primary lines and all subdivisions and apartments that are joint trench (underground electric primary and gas in the same trench).
6-37	JT-Residential S/D	All subdivisions that are fed internally by underground electric primary lines and all subdivisions and apartments that are joint trench (underground electric primary and gas in the same trench).
6-38	JT-Apartments	All subdivisions that are fed internally by underground electric primary lines and all subdivisions and apartments that are joint trench (underground electric primary and gas in the same trench).
6-39	PCI-Capacitor Banks	To change out PCB contaminated capacitor banks
6-40	PCI- Dist. Transformers	Purchase, receive, test and stock overhead type transformers for the Overhead Electric Distribution System. -inventory levels are closely managed based on growth, new construction, history, voltage conversions and failures.
6-41	Meters	The Electric Meter Area's capital budget for the purchase of electric metering equipment along with installation of revenue metering at the gate stations.
6-42	Contributions in Aid of Construction	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

## NOTES FOR PAGE 6-CAPITAL EXPENDITURES (Continued)

**General Plant**

6-43	<b>Buildings and Structures</b>	Please see Appendix 9-2 through 9-6.
6-44	<b>Security Automation</b>	Please see Appendix 9-7.
6-45	<b>Land Purchase</b>	Please see Appendix 9-1.
6-46	<b>Fleet Capital Power Operated</b>	Please see Appendix 9-8.
6-47	<b>Transportation Equipment</b>	Please see Appendix 9-9.
6-48	<b>Tools &amp; Equipment</b>	No expenditures planned for the 2021 budget year.
6-49	<b>Lab &amp; Test</b>	Please see Appendix 9-11.
6-50	<b>Communication Equipment</b>	Please see Appendix 9-10.
6-51	<b>Communication Towers</b>	Please see Appendix 9-12.
6-52	<b>Telecommunication Network</b>	Please see Appendix 9-13 through 9-17.
6-53	<b>Utility Monitoring</b>	Please see Appendix 10-1 through 10-5.
6-54	<b>Customer Information System Development</b>	Please see Appendix 10-6 through 10-11.
6-55	<b>Business Continuity</b>	Please see Appendix 10-12 through 10-15.
6-56	<b>Data Processing Equipment</b>	Please see Appendix 10-16 through 10-27.
6-57	<b>IS/IT Projects</b>	No expenditures planned for the 2021 budget year.
6-58	<b>Contingency Fund</b>	Please see Appendix 10-28.
6-59	<b>Delayed Cost Allocations</b>	These are funds budgeted in the current year for items that may arrive late from the previous year's budget.

## NOTES FOR PAGE 7-CAPITAL EXPENDITURES BUDGET

**Substation & Transmission****Substation**

7-1	Purchase Mobile Substation for Contingencies & Maintenance	Description/Location	Various locations
		Purpose/Necessity	Upgrade/update of existing infrastructure with insufficient fault current capability.
7-2	Replace RTU's various locations	Description/Location	Replace RTU's various locations
		Purpose/Necessity	Replace failed breakers
7-3	Replace capacitor banks various locations	Description/Location	Replace capacitor banks various locations
		Purpose/Necessity	Replace failed breakers
7-4	Replace relays various locations	Description/Location	Replace capacitor various locations
		Purpose/Necessity	Replace failed breakers
7-5	Install Grounding Grid @ Substation 32	Description/Location	Install Grounding Grid @ Substation 32
		Purpose/Necessity	Install Grounding Grid
7-6	FedEx Substation (Reimbursable)	Description/Location	FedEx Substation build
		Purpose/Necessity	FedEx Substation build
7-7	Replace Reactor Substation 1	Description/Location	Replace Reactor Substation 1
		Purpose/Necessity	Install new equipment at Substation 1
7-8	Replace batteries various locations	Description/Location	Replace batteries various locations
			Replace batteries various locations
7-9	Refurbish Station Service & AC Panelboards @ Substation 34	Description/Location	Refurbish Station Service & AC Panelboards @ Substation 34
		Purpose/Necessity	Refurbish Station Service & AC Panelboards.
7-10	Replace 161kV Potential Transformer @ Substation 32	Description/Location	Replace 161kV Potential Transformer @ Substation 32
		Purpose/Necessity	Replace 161kV Potential Transformer.
7-11	Substation 4 OH/UG Conversion Ckts 2395 & 2397 (City of Memphis)	Description/Location	Substation 4 Beautification (City of Memphis)
		Purpose/Necessity	Install new equipment at Substation 4 Beautification
7-12	Replace 161kV CVT @Substation 42	Description/Location	Replace 161kV CVT @Substation 42
		Purpose/Necessity	To replace 161kV CVT @ Substation 42
7-13	Install TRV Capacitors	Description/Location	Install TRV Capacitors
		Purpose/Necessity	Install new TRV Capacitors various locations
7-14	Replace switches various locations	Description/Location	Replace switches various locations
		Purpose/Necessity	Replace switches various locations
7-15	Replace/Install misc. (switches, batteries, fiber, etc.)	Description/Location	Miscellaneous Replace/Install
		Purpose/Necessity	Replace/Install Miscellaneous equipment various locations
7-16	Seismic Retrofit of Non-Structural Substation Components	Description/Location	Various locations
		Purpose/Necessity	Nonstructural anchorage, bracing or restraints for nonstructural control and metering equipment in substation control and oil buildings and in the electric operations/SCADA building. (2007 Multi-Hazard Risk Assessment)
7-17	Animal Mitigation	Description/Location	Various locations
		Purpose/Necessity	Protect electric equipment from outages due to animals

**Substation/Transmission Projects****Substation - NERC Compliance**

7-18	Install/Upgrade Digital Fault Recorders	Description/Location	Install/Upgrade Digital Fault Recorders
		Purpose/Necessity	Needed for disturbance recording due to NERC standard PRC-002.
7-19	NERC Low Impact Compliance	Description/Location	Various substations.
		Purpose/Necessity	Needed for physical security access documentation for all low-impact assets, required due to NERC standard CIP-002.

## NOTES FOR PAGE 7-CAPITAL EXPENDITURES BUDGET (Continued)

**Substation/Transmission Projects (Continued)****Substation Transformers**

7-20	Replace 161/23/12 kV transformer bank 32649 @ Substation 32	Description/Location	Substation # 32
		Purpose/Necessity	Upgrade / update of existing aging infrastructure that is no longer adequate
7-21	Replace 23/12 kV transformer banks 5335 & 5337 @ Substation 5	Description/Location	Substation # 5
		Purpose/Necessity	Upgrade / update of existing aging infrastructure that is no longer adequate
7-22	Procurement of Spare Transformers	Description/Location	Purchase of additional transformers for emergencies.
		Purpose/Necessity	Purchase of additional transformers for emergencies.
7-23	Replace 115/12kV transformer banks 1157 & 1159 @ Substation 21	Purpose/Necessity	Substation # 21
	Replace 115/12kV transformer banks 1157 & 1159 @ Substation 21	Description/Location	Upgrade / update of existing aging infrastructure that is no longer adequate
7-24	Replace 115/12kV transformer banks 6555, 6557 & 6559 @ Substation 6	Description/Location	Various substations.
		Purpose/Necessity	Replacement of failed transformers at various substations

**Substation Circuit Breakers**

7-25	Contingency Replace Breakers	Description/Location	Various substations
		Purpose/Necessity	Replace failed breakers
7-26	Replace 12 kV Breaker 7613 @ Substation 27	Description/Location	Replace 12 kV Breaker 7613 @ Substation 27
		Purpose/Necessity	Replace failed breakers
7-27	Replace 115 kV Breaker 5153 @ Substation 25	Description/Location	Replace 115 kV Breaker 5153 @ Substation 25
		Purpose/Necessity	Replace failed breakers
7-28	Replace 23 kV Breaker 1805 @ Substation 11	Description/Location	Replace 23 kV Breaker 1805 @ Substation 11
		Purpose/Necessity	Replace failed breakers
7-29	Replace 161 kV Breaker 11643 @ Substation 11	Description/Location	Replace 161 kV Breaker 11643 @ Substation 11
		Purpose/Necessity	Replace failed breakers
7-30	Replace 12 kV Breaker 6609 @ Substation 26	Description/Location	Replace 12 kV Breaker 6609 @ Substation 26
		Purpose/Necessity	Replace failed breakers
7-31	Replace 12 kV Breaker 46205 @ Substation 46	Description/Location	Replace 12 kV Breaker 46205 @ Substation 46
		Purpose/Necessity	Replace failed breakers
7-32	Replace 12 kV Breaker 3757 @ Substation 13	Description/Location	Replace 12 kV Breaker 3757 @ Substation 13
		Purpose/Necessity	Replace failed breakers
7-33	Replace 12 kV Breaker 6609 @ Substation 26	Description/Location	Replace 12 kV Breaker 6609 @ Substation 26
		Purpose/Necessity	Replace failed breakers
7-34	Replace 23 kV Breaker 1835 @ Substation 11	Description/Location	Replace 23 kV Breaker 1835 @ Substation 11
		Purpose/Necessity	Replace failed breakers
7-35	Replace 23 kV Breaker 1837 @ Substation 11	Description/Location	Replace 23 kV Breaker 1837 @ Substation 11
		Purpose/Necessity	Replace failed breakers
7-36	Replace 23 kV Breaker 45349 @ Substation 45	Description/Location	Replace 23 kV Breaker 45349 @ Substation 45
		Purpose/Necessity	Replace failed breakers
7-37	Replace 12 kV Breaker 4713 @ Substation 14	Description/Location	Replace 12 kV Breaker 4713 @ Substation 14
		Purpose/Necessity	Replace failed breakers
7-38	Replace Breakers Substation 21 - Network Substation Contingency	Description/Location	Replace Breakers Substation 21 Network Substation
		Purpose/Necessity	Replace failed breakers

## NOTES FOR PAGE 8—CAPITAL EXPENDITURES BUDGET

**Substation/Transmission Projects (Continued)****Substation/Transmission Projects**

8-1	Structure #1613 Bank Stabilization	Description/Location	Structure #1613 Bank Stabilization
		Purpose/Necessity	Bank Stabilization to prevent Tower #1613 from falling into Wolf River.
8-2	Misc. projects (OPGW, structure replacements, etc.)	Description/Location	Misc. projects (OPGW, structure replacements, etc.)
		Purpose/Necessity	Install small fiber communication jobs, structure replacements/upgrades and bank stabilization at various locations.
8-3	OPGW 42--23	Description/Location	OPGW 42--23
		Purpose/Necessity	Install fiber communication between Substations 42 & 23.
8-4	OPGW 11-35	Description/Location	OPGW 11-35
		Purpose/Necessity	Install fiber communication between Substations 11 & 35.
8-5	Unmanned Aerial Vehicle	Description/Location	Unmanned Aerial Vehicle
		Purpose/Necessity	UAV (Drone) surveys at various locations for meeting NERC requirements, structure inspection, storm restoration and topographical surveys.

**Transmission - Reimbursable**

8-6	TVA CC Plant - Horn Lake Line Transmission Improvements	Description/Location	TVA CC Plant - Horn Lake Line Transmission Improvements
		Purpose/Necessity	Reimbursable improvements along the Horn Lake Line as a result of the TVA CC Plant.
8-7	TVA CC Plant - Transmission Improvements	Description/Location	TVA CC Plant - Transmission Improvements
		Purpose/Necessity	Reimbursable improvements made at various locations as a result of the TVA CC Plant.
8-8	FedEx Station Transmission	Description/Location	FedEx Station Transmission
		Purpose/Necessity	FedEx Station Transmission
8-9	TDOT Lamar & Shelby Drive	Description/Location	TDOT Lamar & Shelby Drive
		Purpose/Necessity	Lamar & Shelby Drive



## NOTES FOR PAGE 8-CAPITAL EXPENDITURES BUDGET

Distribution System - Major ProjectsNew Circuits Out of Substations

8-10	New Ckt Sub 84 North	Description/Location	Shelby Drive - Mendenhall to Hickory Hill & Holmes (Sub 89 Ckt Ties)
		Purpose/Necessity	Reliability and switching flexibility
8-11	Sub. 84, Germantown Rd. Steel Pole Line	Description/Location	Install steel pole line for new circuits from Sta. 84.
		Purpose/Necessity	Reliability and switching flexibility
8-12	Other New Circuits Projects	Description/Location	Install other new circuits projects
		Purpose/Necessity	Reliability and switching flexibility
8-13	Holmes Rd - Crumpler to Riverdale (Sub 9 tie)	Description/Location	Circuit tie on Holmes Rd, from Crumpler to Riverdale
		Purpose/Necessity	Reliability and switching flexibility
8-14	Substation 84 Cabling (3 Ckts)	Description/Location	Install cable for new 3rd bank at Sub. 84
		Purpose/Necessity	Reliability and switching flexibility
8-15	Sub. 84, Ckt Ties	Description/Location	Install multiple circuit ties for station 84 circuits
		Purpose/Necessity	Reliability and switching flexibility

Miscellaneous Reimbursable Projects

8-16	Pinch District Improvements	Description/Location	Downtown area
		Purpose/Necessity	This project will relocate/improve electric facilities in conjunction with the proposed improvements to the Pinch District in downtown Memphis.
8-17	Other Relocate at Customer Request Projects	Description/Location	Downtown area
		Purpose/Necessity	Relocating/improving electric facilities in conjunction with the proposed improvements in various areas at customers request

Street Improvement Projects

8-18	Eves Presley Corridor-Middle Segment (C/O)	Description/Location	Eves Presley Corridor-Middle Segment (C/O)
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
8-19	SR-57/Poplar Bridge @ Scott Street & SR-23/Walnut Grove (SP 02/12)	Description/Location	SR-57/Poplar Bridge @ Scott Street & SR-23/Walnut Grove
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
8-20	SR-1/US-70/Summer Ave, from Macon Rd To Elmore Rd	Description/Location	SR-1/US-70/Summer Ave, from Macon Rd To Elmore Rd
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
8-21	Malone Road, Holmes Rd. to Shelby Drive	Description/Location	Malone Road, Holmes Rd. to Shelby Drive
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities.
8-22	Holmes Rd-Malone Rd to Lamar Ave	Description/Location	Holmes Rd-Malone Rd to Lamar Ave
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities.
8-23	Germantown Road @Wolf River Blvd (C/O)	Description/Location	Germantown Rd. at Wolf River Blvd.
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
8-24	Old Brownsville Rd, Covington Pike to Kirby Pkwy (C/O)	Description/Location	Old Brownsville Rd
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
8-25	SR-14, From SR 385 to East of Kerrville-Rosemark	Description/Location	SR-14, From 385 to East of Kerrville-Rosemark
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
8-26	Mudville Road Bridge, over Big Creek Proj.# 100111	Description/Location	Mudville Road Bridge, over Big Creek Proj.# 100111
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities

## NOTES FOR PAGE 9—CAPITAL EXPENDITURES BUDGET

**General Plant****Buildings and Structures****Substations**

9-1	Purchase of Land	Description/Location	Land purchase or the acquisition of land rights for distribution and transmission line facilities.
		Purpose/Necessity	To accommodate electric facilities, transmission lines, feeder circuits, etc.
9-2	Replace Roofs - Various Substations	Description/Location	Various Substations
		Purpose/Necessity	This project was identified in the Master Roof Plan to be replaced at this time due to increased maintenance, potential leaking, and projected life expectancy.

**Electrical & Systems Operations**

9-3	UPS Battery Replacement	Description/Location	Required to replace approximately every five years due to cell degradation.
		Purpose/Necessity	This is a periodic upgrade to assure UPS system is reliable
9-4	New Storeroom Building	Description/Location	Needed to store special material purchased by the electric groups that are not purchased and managed by stores.
		Purpose/Necessity	New Storeroom Building Build
9-5	ESO - Drainage and pavement upgrade (Front of Bldg.)	Description/Location	To correct drainage and replace the asphalt drive.
		Purpose/Necessity	Repairs necessary due to an overflow of water from property upstream.

**Netters Business Operations Center**

9-6	Trane Chiller Renewal Service Program	Description/Location	Complete rebuild of the existing chiller every 7 to 10 years.
		Purpose/Necessity	Rebuild to ensure cooling reliability in the building.

**Security Automation**

9-7	Security Automation	Description/Location	Various locations
		Purpose/Necessity	Install card readers on control house doors, install a CCTV system, install fence alarms and various security upgrades throughout the division.

**General Plant (Continued)****Fleet Capital Power Operated Equipment**

9-8	Fleet Capital Power Operated Equipment	Description/Location	Division vehicles/equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items, in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet areas needs. Additions are evaluated based on

**Transportation Equipment**

9-9	Transportation Equipment	Description/Location	Division equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items, in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet areas needs. Additions are evaluated based on justification request and proper approval.

**Communication Equipment**

9-10	Communication Equipment	Description/Location	Control Area for Communication Equipment
		Purpose/Necessity	To satisfy the Division needs for Electric Communication Equipment for the Budget. The replacement policy is broken down into the following categories: 1. Lost or Stolen; 2. Damaged Beyond Repair; 3. Not Repairable/No Abuse; 4. Obsolete

**Laboratory & Test Equipment**

9-11	Lab & Test Equipment	Description/Location	Control Area for Lab & Test Equipment
		Purpose/Necessity	To satisfy the Division needs for Electric Laboratory Equipment. The replacement policy is broken down into the following categories: 1. Lost or Stolen; 2. Damaged Beyond Repair; 3. Not Repairable/No Abuse; 4. Obsolete

**Communication Tower Projects****Microwave/Mobile Radio**

9-12	Microwave/Mobile Radio	Description/Location	Replacement of entire system and new radios
		Purpose/Necessity	Replacement of entire system and new radios

## NOTES FOR PAGE 9—CAPITAL EXPENDITURES BUDGET (Continued)

**General Plant (continued)****Telecommunication Network**

9-13	Fiber Optic Cable and Equipment	Description/Location	Install fiber optic cable at various locations.
		Purpose/Necessity	Provide fiber optic communications to specified facilities.
9-14	System Automation	Description/Location	To install communications and hardware to allow for system automated operation to provide for more advanced restoration capabilities.
		Purpose/Necessity	Miscellaneous Projections
9-15	Fiber Optic Multiplexers	Description/Location	Purchase and install fiber optic end equipment (places light on the optical fibers and "makes them work") at various locations.
		Purpose/Necessity	Enable communications over proposed fiber optic cable.
9-16	Telecommunication Systems Growth	Description/Location	Telecom systems growth - various locations. This is to cover unplanned and unforeseen Telecom expenditures that typically occur.
		Purpose/Necessity	Previous Telecom budgets had separate line items for systems growth in Mobile Radio, Fiber Optic, Microwave, Voice Recorder, Video Conferencing, Audio Conferencing, Voice System, etc. This item consolidates the separate items.
9-17	Voice Network	Description/Location	Replace Administration Building telephone switch
		Purpose/Necessity	Replace obsolete switch; reconfigure voice system to have three "master" switches that provide service to all MLGW facilities instead of separate switches at each location.

## NOTES FOR PAGE 10–CAPITAL EXPENDITURES BUDGET

**Utility Monitoring & Control Systems**

10-1	DMS System Upgrade	Description/Location	Distribution Management System hardware/software upgrade
		Purpose/Necessity	to upgrade hardware/software
10-2	Video Wall Implementation	Description/Location	video display used to monitor electric, gas and water system.
		Purpose/Necessity	video display used to monitor electric, gas and water system.
10-3	Opennet Realtime Power Flow Analysis	Description/Location	realtime power flow analysis software.
		Purpose/Necessity	To perform contingency analysis.
10-4	SCADA Upgrade	Description/Location	SCADA hardware/software upgrade
		Purpose/Necessity	to upgrade hardware/software
	SCADA Communication Upgrade	Description/Location	RTU replacement project
10-5		Purpose/Necessity	To change out harris RTU's to DNP RTU's

**Customer Information System Development**

10-6	Mobile Dispatching System Replacement (CO)	Description/Location	Mobile Dispatching System Replacement & Expansion
		Purpose/Necessity	Replace the mobile dispatch system which is several releases behind and does not allow for MLGW to develop it's own functions within the software. Currently the vendor has to develop all functions.
10-7	CIS Production Hardware & Software Upgrade (C/O)	Description/Location	CIS Upgrade Production HW & SW
		Purpose/Necessity	This will provide an upgrade to the CIS hardware and software (Oracle Database 12c and Linux Operating system). The current hardware and software is over 8 years old.

## NOTES FOR PAGE 10–CAPITAL EXPENDITURES BUDGET (Continued)

10-8	Bill Gen Replacement	Description/Location	Replace the current BillGen system.
		Purpose/Necessity	GSA-3 customers may become Time Of Use (TOU) customers in October 2018. The current BillGen would not be able to handle these additional customers.
10-9	Electric Meter Test Board Replacement	Description/Location	The Electric Meter Area's capital budget for the purchase of electric metering equipment along with installation of revenue metering at the gate stations.
10-10	IVR Replacement (CO)	Description/Location	The current IVR system does not allow MLGW to make its own changes. The vendor must make the changes to the IVR system. The new system would allow
		Purpose/Necessity	To improve customer ease of use and experience.
10-11	Meter Data Management System (CO)	Description/Location	The Meter Data Management (MDM) system is an application that provides analytical tools, reports, calculates billing reads, and time of use billing and reports.
		Purpose/Necessity	To implement a primary application for meter data management.
		Purpose/Necessity	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.
10-12	Data Center Upgrade (C/O)	Description/Location	Data Center Upgrade and Enhancements
		Purpose/Necessity	To increase reliability and redundancy/failover of user access, applications and Customer satisfaction by adding additional network switches in the System Operations Data Center.

**General Plant (continued)****Business Continuity**

10-13	Virtual Backup System	Description/Location	Virtual Backup System
		Purpose/Necessity	Virtual Backup System
10-14	Network Security Enhancements	Description/Location	Network Security Enhancements
		Purpose/Necessity	Replace network security systems which have reached end of life.
10-15	Backup Expansion (CO)	Description/Location	Backup Expansion (CO)
		Purpose/Necessity	Our current backup system will need to be expanded to store additional backup data from the increase in corporate servers.

**General Plant (continued)****Purchase of Data Processing Equipment**

10-16	Storage Area Network Upgrade	Description/Location	Upgrade the Storage Area Network (SAN) Fabric and EMC SAN
		Purpose/Necessity	The purpose is to upgrade the Storage Area Network (SAN) to allow for failover to the disaster recovery copy of the production virtual server environment. In the event of a disaster this project would allow all existing and future virtual servers located at the Netters Data Center to come online at the Administration building.
10-17	AI Project	Description/Location	Artificial Intelligence
		Purpose/Necessity	This artificial intelligence platform will provide MLGW an environment where it can perform complex data analysis for forecasting and regression analysis, automated insights into data, data analytics (eg financial, performance measurements), and interactions with smart assistance technologies and process automation.
10-18	Annual New/Replacement Servers/Win OS Upgrades (CO)	Description/Location	Annual New/Replacement Servers/Win OS Upgrades
		Purpose/Necessity	Purchase or replace existing servers which have reached end-of-life and will no longer be supported by the manufacturer.
10-19	Annual New/Replacement Servers New	Description/Location	Annual New/Replacement Servers New
		Purpose/Necessity	Purchase or replace existing servers which have reached end-of-life and will no longer be supported by the manufacturer.
10-20	Annual Network Upgrades	Description/Location	Perform annual network upgrades
		Purpose/Necessity	To remove and replace network equipment that is reaching of end of life/en of support.
10-21	Network Access Control for End Points	Description/Location	Network Access Control for End Points
		Purpose/Necessity	This system will provide continuous security monitoring and mitigation of devices that connects to MLGW's network. The system will discover, classify and assess every connected device for security threats and automatically take appropriate actions to mitigate or eliminate the risk posed by that device.
10-22	2020 Storage Upgrade- (C/O)	Description/Location	Increase storage capacity
		Purpose/Necessity	To increase storage capacity, performance, and speed of MLGW's Storage Area Networks (SAN) which will accommodate the immense growth of the production data, development and testing storage needs.
10-23	Project Portfolio Management Software	Description/Location	Project Portfolio Management Tool.
		Purpose/Necessity	The system will centralize MLGW's project portfolio to provide the capability to organize and prioritize projects and align those projects with MLGW's strategic goals and objectives.
10-24	Work Center Wireless (outdoor)	Description/Location	Work Center Wireless (outdoor)
		Purpose/Necessity	To expand MLGW's wireless outdoor network at North, South, Hickory Hill and Brunswick service centers.

**NOTES FOR PAGE 10—CAPITAL EXPENDITURES BUDGET (Continued)**

10-25	EBS Succession Plan	Description/Location	EBS Succession Plan
		Purpose/Necessity	This system will assist MLGW with business continuity and reduce the risks associated with talent mobility. It will enhance our ability to effectively balance career aspiration of the identified high potential employees and developing a stronger pipeline of probable successors transitioning into the organizations critically identified classifications.
10-26	ArcGIS Mobile Viewer	Description/Location	Business Objects Upgrade
		Purpose/Necessity	Miscellaneous Projections
10-27	PC Equipment	Description/Location	PC equipment (above \$5000 unit cost) requested for various reasons
		Purpose/Necessity	PC equipment requested for various reasons including: additional functionality, laptops with docking stations to replace desktop PCs, and laptops needing replacement ahead of schedule due to software requirements.
10-28	Contingency Fund - General Plant	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	

## NOTES FOR PAGE 12—INCOME &amp; EXPENSE COMPARISON

**Operating Revenue**

12-1	<b>Sales Revenue</b>	This account includes projected revenue from the sale of natural gas to the residential, commercial, industrial, and interdepartmental customer classes.
12-2	<b>Revenue Adjustment for Uncollectible</b>	Per Governmental Accounting Standards Board (GASB) 34 requirements, bad debt expense must be shown as a reduction of revenue. This is the amount that will not be collected due to customers inability to pay.
12-3	<b>Non-Sales Revenue</b>	This account includes revenue from forfeited discounts (extra charges for payments received after net due date), plus rent charged for Gas Division property that is used by the Electric and Water Divisions, other miscellaneous revenue (e.g., fees for connecting/disconnecting service), and charges for transporting gas, CNG and LNG within the MLGW system for those industrial customers who arrange for purchase of their gas from suppliers other than MLGW.

**Operating Expense**

12-4	<b>Production – LNG Plant</b>	This account includes the cost of expenses incurred in the cost of fuel used in extracting salable products from natural gas and of operation of storage facilities and equipment.
12-5	<b>Purchased Gas</b>	This account includes the cost of natural gas and transportation of this gas to be used for injection into the system for resale.
12-6	<b>Compressed Natural Gas (CNG)</b>	This account includes the cost of compressed natural gas and transportation of this gas to be used for injection into the system for resale.
12-7	<b>Liquefied Natural Gas (LNG)</b>	This account includes the cost of liquefied natural gas and transportation of this gas to be used for injection into the system for resale.
12-8	<b>Distribution Expense</b>	This account includes the cost of labor and expenses incurred in the operation of the distribution system. Included are costs incurred in dispatching and controlling the supply and flow of the gas through the distribution system, in operating system mains and services, in operating general distribution measuring and regulating stations, and in removing, resetting, changing, testing, and servicing customer meters and house regulators. Also included in this account are the expenses incurred in work on customer premises, rents and other expenses.
12-9	<b>Customer Accounts Expense</b>	This account includes the cost of labor, materials and expenses used in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints. It also includes meter reading expenses.
12-10	<b>Customer Service and Information Expense</b>	This account includes the cost of labor, materials and expenses incurred in providing instructions or assistance to customers, the object of which is to encourage safe, efficient, and economical use of services, and activities which convey information in utilizing services to protect health and safety, to encourage environmental protection, to use electrical equipment safely and economically and to conserve energy.
12-11	<b>Sales Expense</b>	This account includes the cost of labor, materials and expenses incurred in promotional, demonstrating and selling activities, advertising designed to promote or retain the use of utility services and miscellaneous sales expense. Included are exhibitions, displays, lectures, engineering and technical advice, advertising in newspapers, periodicals, billboards, radio, etc., postage on direct mail advertising, printing booklets, bulletins, etc.
12-12	<b>Administrative and General Expense</b>	This account includes the compensation of board members, executives, and other administrative and general employees of the utility not chargeable directly to a particular operating function. It also includes the cost of insurance to protect the utility against physical plant losses, cost of reserve accruals to protect the utility against injuries and damage claims of employees or others, such as liability, property damage, casualty, and employee liability. Employee pensions and benefits including payments to pension funds, life insurance, group medical expenses, payments for accident, sickness, hospital and death benefits, and expenses in connection with educational and wellness activities are also included in this account. In accordance with GASB 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pension, MLGW must recognize all post-employment benefits, such as medical insurance and life insurance, when earned, effective budget year 2007.

**Maintenance Expense**

12-13	<b>Production Expense</b>	This account includes the cost of labor, materials and expenses incurred in the maintenance of liquefaction equipment, of measuring and regulating equipment, structures, station equipment and other equipment.
12-14	<b>Distribution Expense</b>	This account includes the cost of labor, materials and expenses incurred in the maintenance of distribution facilities, of structures, of distribution mains, of measuring and regulating equipment, of services, and of meters and house regulators.
12-15	<b>Administrative and General Expense</b>	Please see Appendix 13-12.

## NOTES FOR PAGE 12—INCOME &amp; EXPENSE COMPARISON (Continued)

**Other Operating Expense**

12-16	<b>Depreciation Expense</b>	The purpose of depreciation is to allocate the original cost of a fixed asset over its estimated useful
12-17	<b>Payment in Lieu of Taxes</b>	Payment in lieu of taxes is the amount paid to the municipalities in which MLGW has plant. The formula for payment in lieu of taxes is based on the Municipal Electric System Tax Equivalent Law of 1987 and the Municipal Gas Equivalent Law which became effective July 1, 1988. The tax formula
12-18	<b>F.I.C.A. Taxes</b>	This represents the 1.45% Medicare portion of Social Security Tax that is required to be paid on all MLGW employees hired after 03-31-1986.
12-19	<b>Amortization of Leasehold Improvements</b>	This account includes amortization charges related to expenditures on leased property where the service life of the improvements are terminable by action of the lease.
12-20	<b>Amortization of Legacy Meters</b>	This account includes amortization charges related to expenditures on meters.
12-21	<b>Amortization of Software</b>	This account includes amortization charges related to expenditures on software.

**Income**

12-22	<b>Operating Income</b>	Operating income is equal to operating revenue less total operating expense.
12-23	<b>Other Income</b>	This consists primarily of investment income and property rentals. It does not include any sales of
12-24	<b>Reduction of Plant Recovered through CIAC</b>	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction

**Debt Expense**

12-25	<b>Interest Expense -Long Term Debt</b>	Anticipated bond interest payments per the bond debt schedules.
12-26	<b>Amortization of Debt Discount &amp; Expense</b>	This represents the spreading of bond issuance costs over the life span of the bond series rather than recognizing such costs all at the time of sale.
12-27	<b>Contributions in Aid of Construction</b>	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

## NOTES FOR PAGE 13—SOURCES AND APPLICATION OF FUNDS

**Source of Funds**

13-1	<b>Change in Net Position</b>	Please see Budget page 13.
13-2	<b>Depreciation Charged to Operating Income</b>	Please see Budget page 13.
13-3	<b>Depreciation Charged to Other Accounts</b>	Depreciation charged to other accounts is the annual depreciation for transportation and power operated equipment. Depreciation on these plant items is charged to a clearing account and used in
13-4	<b>Amortization of Legacy Meters</b>	Non-cash expense related to employee pension expenses above or below actual funding due to change in accounting principles.
13-5	<b>Amortization of Software</b>	Non-cash expense related to amortization charges related to software expenditures.
13-6	<b>Salvage</b>	Salvage is the amount received for property retired from plant in service. The property may be sold for scrap or returned to stores inventory for reuse.
13-7	<b>Debt Issuance</b>	Expected debt issuance in the Gas Division for the 2020 budget year.

**Applications of Funds**

13-8	<b>Capital Expenditures</b>	Please see Budget page 14.
13-9	<b>Costs of Removal and Other Charges to the Reserve for</b>	Cost of removal is the cost associated with demolishing, dismantling, tearing down or otherwise removing utility plant, including the cost of transportation and labor.
13-10	<b>Retirement of Long-Term Debt</b>	Bond principal amounts due 01-01-2021 per the bond debt schedules are funded in equal monthly installments during 2021.



## NOTES FOR PAGE 14—CAPITAL EXPENDITURES BUDGET

Production System

14-1	LNG Processing Facilities	LNG Processing Facilities- Purchase and installation of regeneration heating equipment, replacement
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Distribution System

14-2	Residential Service in S/D	This budget category provides for the expenses incurred by the Gas Division for customer requests for service located in a subdivision.
14-3	Residential Service Not in S/D	This budget category provides for the expenses incurred by the Gas Division for customer requests for service not located in a subdivision.
14-4	Residential S/D	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities located in a subdivision.
14-5	Land Purchase	This budget category provides for the purchase of land rights that will be needed for Capital Budget Projects.
14-6	General Power Service	This budget category provides for the expenses incurred by the Gas Division for customer requests for new General Power Service.
14-7	General Power S/D	This budget category provides for the expenses incurred by the Gas Division for customer requests for new General Power Service located in a subdivision.
14-8	Multiple-Unit General Power	This budget category provides for the expenses incurred by the Gas Division for customer requests for multiple units of new General Power Service by the same customer and general location.
14-9	Relocate At Customer Request	This budget category provides for the expenses incurred by the Gas Division for customer requests to relocate existing gas facilities.
14-10	Purchase of Meters	This budget category provides for the expenses incurred from buying new gas meters and reconditioning existing gas meters.
14-11	Street Improvements	This budget category provides for the expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated. Please see Appendix 16-1 through 16-11.
14-12	Demolition	No expenditures planned for the 2020 budget year.
14-13	New Gas Main	This budget category provides for the expenses incurred for the installation of miscellaneous new gas mains and facilities.
14-14	Gas Main/Service Repl (D.O.T.)	This budget category provides for replacement of old cast iron main that requires excessive maintenance and that has a history of leaking. This is a 30 year project that began in 1991 and was requested by the TN Regulatory Authority to replace 330 miles. This budget category also provides for replacement of steel taps and associated services, if needed, that have a history of leaking. This is a program initiated by DIMP findings.
14-15	Transmission Pipelines and Facilities	This budget category provides for the expenses incurred for maintenance of cased gas transmission crossings required by regulatory changes, minor repair of transmission pipelines from scheduled inspections, and minor transmission improvements.
14-16	Regulator Stations	This budget line item provides for the expenses incurred from upgrading obsolete regulator station equipment. The DOT Code mandates that regulators must be maintained to operate within the design parameters of the gas distribution system.
14-17	Gate Stations	This budget line item provides for the expenses related to gas piping systems that are discovered to be unsafe due to corrosion defects, aged facilities, third party damages, or necessary relocations due to erosion problems for transmission as well as distribution.
14-18	Planned Maintenance	Construction in minor work that arises daily. These are mainly calls that go through the Control Room, to include pole knockdowns, gas, and water leaks, etc.
14-19	JT-Residential Service in S/D	This budget category provides for the expenses incurred by the Gas Division for customer requests for gas facilities in a joint trench subdivision.
14-21	JT-Residential S/D	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities in a joint trench subdivision.
14-22	JT-Apartments	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities in a joint trench apartment development.
14-23	Emergency Maintenance	This budget line item provides for emergency repair work when leaks and cut facilities require immediate repair.
14-24	Contributions in Aid of Construction	This budget line item provides for the payment that was predicted to be received from the developer and/or customer for the requested gas facilities to serve their development, businesses and/or new

## NOTES FOR PAGE 14—CAPITAL EXPENDITURES BUDGET (Continued)

**General Plant**

14-25	<b>Buildings and Structures</b>	Please see Appendix 15-17 through 16-6.
14-26	<b>Security Automation</b>	Please see Appendix 16-7.
14-27	<b>Furniture &amp; Fixtures</b>	No capital expenditures planned for the 2021 budget year.
14-28	<b>Data Processing</b>	
14-29	<b>IS/IT Projects</b>	No capital expenditures planned for the 2021 budget year.
14-30	<b>Fleet Capital Common Power Operated Equip</b>	Please see Appendix 16-4.
14-31	<b>Fleet Capital Common Transportation Equip</b>	Please see Appendix 16-5.
14-32	<b>Fleet Gas Power Operated Equipment</b>	Please see Appendix 16-6.
14-33	<b>Fleet Gas Transportation Equipment</b>	Please see Appendix 16-7.
14-34	<b>Automated Fueling System</b>	Please see page 14.
14-35	<b>Tools &amp; Equipment</b>	Please see page 14.
14-36	<b>Common Tools &amp; Equipment</b>	Please see page 14.
14-37	<b>Protective Personal Equipment</b>	Please see page 14.
14-38	<b>Contingency Funds</b>	Please see page 14.
14-39	<b>Delayed Cost Allocations</b>	These are funds budgeted in the current year for items that may arrive late from the previous year's budget.

**NOTES FOR PAGE 15-CAPITAL EXPENDITURES BUDGET****Production System**

15-1	LNG Processing Facilities	Description/Location	Projects related to Capital Maintenance of the Capleville Liquefied Natural Gas Facility.
		Purpose/Necessity	Projects related to Capital Maintenance of the Capleville Liquefied Natural Gas Facility.

**Distribution System- Major Projects****Street Improvements**

15-2	Holmes Rd, Malone Rd to Lamar Ave.	Description/Location	Holmes Rd, Malone Rd to Lamar Ave.
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-3	CP 05/15, Malone Rd, Holmes to Shelby	Description/Location	CP 05/15, Malone Rd. Holmes to Shelby
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-4	SC 17/02, Mudville Road Bridge, over Big Creek	Description/Location	Mudville Road Bridge, over Big Creek
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-5	SR-1/US-70/Summer Ave., from Macon Road to Elmore Rd.	Description/Location	SR-1/US-70/Summer Ave., from Macon Road to Elmore Rd.
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-6	BT 6-03, Old Brownsville Road, Austin Peay to Kirby Whitten	Description/Location	Bartlett- Old Brownsville, Austin Peay to Kirby Whitten PIN 010619 - Street widening impact to gas mains
		Purpose/Necessity	
15-7	CP 16/16 Elvis Presley Middle Seg. WO288159	Description/Location	Elvis Presley Middle Seg.
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-8	GT 16/01, Germantown Rd at Brierbrook, W8Q43005	Description/Location	Germantown Rd at Brierbrook.
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-9	Raleigh Millington bridge over Big Creek	Description/Location	Millington bridge over Big Creek
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-10	CP 04/39, Pleasant Hill Rd - Holmes to Shelby	Description/Location	Pleasant Hill Rd. - Holmes to Shelby
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-11	SR-14, from SR-385 to Kerrville/Rosemark Road	Description/Location	SR-14, from SR-385 to Kerrville/Rosemark Road
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-12	AP 19/01, Memphis Arlington Road; Gerber to Milton Wilson, WO 548048	Description/Location	Memphis Arlington Road; Gerber to Milton Wilson
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.

**NOTES FOR PAGE 15—CAPITAL EXPENDITURES BUDGET (Continued)****Transmission Pipelines and Facilities**

15-13	12" XHP Brooks to McMullen	Description/Location	Brooks to McMullen/ Pipeline Replacements
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-14	18" XXHP Pipeline Replacement @ Covington Pike & LNRR	Description/Location	Covington Pike & LNRR
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.
15-15	12" PEMP Landfill Line, De-Commissioning	Description/Location	12' PEMP Landfill Line, De-Commissioning
		Purpose/Necessity	This budget line item provides for the expenses related to gas piping systems that are discovered to be unsafe due to corrosion defects, aged facilities, third party damages, or necessary relocations due to erosion problems for transmission as well as distribution.
15-16	SP 08/12 New Allen @ Ridgemont	Description/Location	SP 08/12 New Allen @ Ridgemont
		Purpose/Necessity	Expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated for the drainage, elevation changes and/or new sewer facilities.

**General Plant****Buildings and Structures****South Service Center**

15-17	Paving Upgrade	Description/Location	South Service Center
		Purpose/Necessity	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
15-18	Replace Truck Canopy Roof	Description/Location	South Service Center
		Purpose/Necessity	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
15-19	Replace Storage Canopy Roof	Description/Location	South Service Center
		Purpose/Necessity	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.

**North Service Center**

15-20	Building #8 (Re-cover over stores 160,668 square foot roof)	Description/Location	North Service Center
		Purpose/Necessity	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
15-21	Asphalt Paving & Concrete Slabs/Drives	Description/Location	North Service Center
		Purpose/Necessity	This project was identified in the Master Plan. All asphalt drives, parking areas are in very bad shape. Also, there is a need to pave areas for safe movement of material.

**NOTES FOR PAGE 15—CAPITAL EXPENDITURES BUDGET (Continued)**

<b>15-22</b>	<b>Building #8 (Re-cover over office 24,000 square foot roof)</b>	<b>Description/Location</b>	North Service Center
		<b>Purpose/Necessity</b>	This project was recommended to store Building Services and Grounds' chemicals used for facility maintenance activities.
<b>15-23</b>	<b>Building #1: Replace Roof-Top Unit</b>	<b>Description/Location</b>	North Service Center
		<b>Purpose/Necessity</b>	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
<b>15-24</b>	<b>Building #3 Replace DRAVO Heaters &amp; Controls</b>	<b>Description/Location</b>	North Service Center
		<b>Purpose/Necessity</b>	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.

**NOTES FOR PAGE 16—CAPITAL EXPENDITURES BUDGET****Brunswick Service Center**

16-1	Install Automated Gates, Replace Guard House & new Fence	Description/Location	Brunswick Service Center
		Purpose/Necessity	The existing Guard house is extremely old and needs to be updated.
16-2	Paving Upgrades	Description/Location	Brunswick Service Center
		Purpose/Necessity	This project was identified in the Master Plan. All asphalt drives, parking areas are in very bad shape. Also, there is a need to pave areas for safe movement of material.
16-3	Canopy for Transmission Crew Equipment	Description/Location	Brunswick Service Center
		Purpose/Necessity	This is an area request so they could work on larger trucks outside under cover.

**Hickory Hill Service Center**

16-4	Paving Upgrde - Phase 1	Description/Location	Hickory Hill Service Center
		Purpose/Necessity	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
16-5	Storeroom Restroom	Description/Location	Hickory Hill Service Center
		Purpose/Necessity	

**General Plant (Continued)****Buildings and Structures (Continued)****Choctaw**

16-6	Asset Reclamation Restroom	Description/Location	Choctaw
		Purpose/Necessity	

**Security Automation**

16-7	Security Automation	Description/Location	Security Automation
		Purpose/Necessity	
16-8	Tools & Equipment	Description/Location	Division tools/equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items, in order to provide equipment for employees to complete job assignments. Tools are considered replacements for the following reasons: i. Damaged beyond repair; ii. Worn from time/age/use, cost does not justify repair; iii. Lost/Stolen report submitted in a timely manner; iv. No longer suited for work being done, replace with a new model; v. Safety hazard; vi. Repair cost is at or above 50% of cost of new tool; vii. High occurrence of maintenance that creates excessive downtime.
16-9	Tools & Equipment Common	Description/Location	Division vehicles/equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet areas' needs. Additions are evaluated based on justification request and proper approval.
16-10	Fleet Capital Common Power Operated Equipment	Description/Location	Division vehicles/equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet areas' needs. Additions are evaluated based on justification request and proper approval.

**NOTES FOR PAGE 16–CAPITAL EXPENDITURES BUDGET (Continued)**

<b>16-11</b>	<b>Fleet Capital Common Transportation Equipment</b>	<b>Description/Location</b>	Division vehicles/equipment used for work in and around Shelby County.
		<b>Purpose/Necessity</b>	To purchase approved budget items in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet areas' needs. Additions are evaluated based on justification request and proper approval.
<b>16-12</b>	<b>Fleet Gas Power Operated Equipment</b>	<b>Description/Location</b>	Division vehicles/equipment used for work in and around Shelby County.
		<b>Purpose/Necessity</b>	To purchase approved budget items in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet areas' needs. Additions are evaluated based on justification request and proper approval.
<b>16-13</b>	<b>Fleet Gas Transportation Equipment</b>	<b>Description/Location</b>	Division vehicles/equipment used for work in and around Shelby County.
		<b>Purpose/Necessity</b>	To purchase approved budget items in order to provide equipment for crews to complete job assignments. Replacements are evaluated

**IS/IT Projects**

<b>16-14</b>	<b>Natural Gas Management System (CO)</b>	<b>Description/Location</b>	Replace the Allegro Gas Management system with a new system.
		<b>Purpose/Necessity</b>	This system is needed for accurate and timely information of natural gas and derivatives, supplier and pipeline invoice reconciliation.
<b>16-15</b>	<b>Gas Miscellaneous</b>	<b>Description/Location</b>	Personal Protective Equipment, gas meter change devices, and energy trade risk management software.
		<b>Purpose/Necessity</b>	To purchase personal protective equipment, gas meter change devices, and energy trade risk management software.

**Contingency Funds - General Plant**

<b>16-16</b>	<b>Automated Fueling System (CO)</b>	<b>Description/Location</b>	Automated Fuel Management System for entire Division.
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**NOTES FOR PAGE 18—INCOME & EXPENSE COMPARISON**

**Operating Revenue**

<b>18-1</b>	<b>Sales Revenue</b>	This account includes projected revenue from the sale of water to the residential, commercial, resale, and interdepartmental customer classes, as well as revenue from fire protection services.
<b>18-2</b>	<b>Revenue Adjustment for Uncollectible</b>	Per Governmental Accounting Standards Board (Water) 34 requirements, bad debt expense must be shown as a reduction of revenue. This is the amount that will not be collected due to customers inability to pay.
<b>18-3</b>	<b>Non-Sales Revenue</b>	This account includes revenue from forfeited discounts (charges for payments received after net due date), plus rent charged for Water Division property that is used by the Electric and Water Divisions, and other miscellaneous revenue (e.g., fees for connecting/disconnecting service).

**Operating Expense**

<b>18-4</b>	<b>Production Expense</b>	This account includes the cost of labor and expenses incurred in the general supervision and operation of the water source of supply facilities, the power production and pumping facilities, and the water treatment expenses. Also included is the fuel used in the production of power to operate the pumps, all chemicals used in the treatment of water and miscellaneous expenses including general clerical labor, building services, general operating supplies and care of grounds.
<b>18-5</b>	<b>Distribution Expense</b>	This account includes the cost of labor and expenses incurred in the operation of distribution reservoirs and tanks, meter expenses, customer installation expenses and miscellaneous expenses including preparing maps and prints, general clerical support, operating records, service interruption, trouble records, and other miscellaneous labor.
<b>18-6</b>	<b>Customer Accounts Expense</b>	This account includes the cost of labor and expenses incurred in the reading of customer meters, in customer applications, orders, contracts, credit investigations, billing and accounting, collections and complaints.
<b>18-7</b>	<b>Customer Service and Information Expense</b>	This account includes the cost of labor and expenses incurred in customer service and informational activities, the purpose of which is to encourage safe and efficient use of the utility's services, to promote the conservation of the utility's services and to assist customers in answering specific inquiries as to the proper and economic use of the utility's services.
<b>18-8</b>	<b>Sales Expense</b>	This account includes the cost of labor, materials and expenses incurred in promotional, demonstrating and selling activities, advertising designed to promote or retain the use of utility services and miscellaneous sales expense. Included are exhibitions, displays, lectures, engineering and technical advice, advertising in newspapers, periodicals, billboards, radio, etc., postage on direct mail advertising, printing booklets, bulletins, etc.
<b>18-9</b>	<b>Administrative and General Expense</b>	This account includes the compensation of board members, executives, and other administrative and general employees of the utility not chargeable directly to a particular operating function. It also includes the cost of insurance to protect the utility against physical plant losses, cost of reserve accruals to protect the utility against injuries and damage claims of employees or others, such as liability, property damage, casualty, and employee liability. Employee pensions and benefits including payments to pension funds, life insurance, group medical expenses, payments for accident, sickness, hospital and death benefits, and expenses in connection with educational and wellness activities are also included in this account. In accordance with Water 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pension, MLGW must recognize all postemployment benefits, such as medical insurance and life insurance, when earned, effective budget year 2007.

**Maintenance Expense**

<b>18-10</b>	<b>Production Expense</b>	This account includes the labor and expenses incurred in the maintenance of structures and improvements, collecting and impounding reservoirs, maintenance of wells, the maintenance of observation wells, the maintenance of structures and improvements used in connection with pumping, maintenance of power production equipment used directly in pumping operations, the maintenance of pumping equipment, maintenance of structures and improvements to the water treatment plant, and water treatment plant equipment.
<b>18-11</b>	<b>Distribution Expense</b>	This account includes the labor and expenses incurred in the maintenance of the distribution system including structures and improvements, mains, services, meters, meter testing equipment, fire hydrants, and miscellaneous plant.
<b>18-12</b>	<b>Administrative &amp; General Expense</b>	Please see Appendix 18-9.



**NOTES FOR PAGE 18—INCOME & EXPENSE COMPARISON (Continued)**

**Other Operating Expense**

<b>18-13</b>	<b>Depreciation Expense</b>	The purpose of depreciation is to allocate the original cost of a fixed asset over its estimated useful life. In a utility environment, the annual depreciation rate also takes into account the estimated salvage and cost of removal upon retirement.
<b>18-14</b>	<b>Payment In Lieu of Taxes</b>	MLGW and the City of Memphis have agreed on a P.I.L.O.T. in the amount of \$2,500,000 to be made on an annual basis to the City from the revenues of the Water Division through fiscal years 2028.
<b>18-15</b>	<b>F.I.C.A. Taxes</b>	This represents the 1.45% Medicare portion of Social Security Tax that is required to be paid on all MLGW employees hired after 03-31-1986.
<b>18-16</b>	<b>Amortization of SCBPU Acquisition Adjustments</b>	The amortization of SCBPU Acquisition Adjustment is the allocation over a twenty year period of the difference in the purchase price and the estimated original cost less depreciation of Shelby County Board of Public Utilities which was purchased by MLGW in July, 1999.
<b>18-17</b>	<b>Amortization of Legacy Meters</b>	This account includes amortization charges related to expenditures on meters.

**Income**

<b>18-18</b>	<b>Operating Income</b>	Operating income is equal to operating revenue less total operating expense.
<b>18-19</b>	<b>Other Income</b>	This consists primarily of interest and investment income. It does not include any sales of electricity, Water or water.
<b>18-20</b>	<b>Reduction of Plant Cost Recovered through CIAC</b>	Contributions-in-aid-of-construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

**Debt Expense**

<b>18-21</b>	<b>Interest Expense – Existing Long-Term Debt</b>	Bond interest payments due 06-01-2020 and 12-01-2020 per the bond debt schedules are funded in equal monthly installments in 2020.
<b>18-22</b>	<b>Amortization of Debt Discount &amp; Expense</b>	This represents the spreading of bond issuance costs over the life span of the bond series rather than recognizing such costs all at the time of sale.
<b>18-23</b>	<b>Contributions in Aid of Construction</b>	Please see Appendix 18c.

## NOTES FOR PAGE 19—INCOME &amp; EXPENSE COMPARISON

**Source of Funds**

19-1	Change in Net Position	Please see page 19.
19-2	Depreciation Charged to Operating Income	Please see page 19.
19-3	Depreciation Charged to Other Accounts	Depreciation charged to other accounts is the annual depreciation for transportation and power operated equipment. Depreciation on these plant items is charged to a clearing account and used in the equipment rate calculations.
19-4	Amortization of Legacy Meters	Non-cash expense related to amortization charges related to meter expenditures.
19-5	Salvage	Salvage is the amount received for property retired from plant in service. The property may be sold for scrap or returned to stores inventory for reuse.
19-6	Debt Issuance	Expected debt issuance in the Water Division for the 2021 budget year.

**Application of Funds**

19-7	Capital Expenditures	Please see Budget page 19.
19-8	Costs of Removal and Other Charges to the Reserve for Depreciation	Cost of removal is the cost associated with demolishing, dismantling, tearing down or otherwise removing utility plant, including the cost of transportation and labor.
19-9	Retirement of Long-Term Debt	Bond principal amounts due 12-01 per the bond debt schedules are funded in equal monthly installments during 2020.

**NOTES FOR PAGE 20—CAPITAL EXPENDITURES BUDGET**

**Production System**

20-1	Pumping Stations	Please see Appendix 22-1.
20-2	Overhead Storage Tanks	No expenditures planned for the 2021 budget year.
20-3	Underground Storage Reservoirs	Please see Appendix 22-1.
20-4	Production Wells	Please see Appendix 22-2 through 22-5.
20-5	Land Purchase	Please see Appendix 22-7.
20-6	Operations Maintenance	Please see Appendix 22-6.
20-7	Contingency Fund - Production System	Please see Appendix 22-8
20-8	Buildings and Structures - Production System	Please see Appendix 22-8.

**Distribution System**

20-9	Residential Service in S/D	This budget category provides for the expenses incurred by the Water Division for customer requests for service located in a subdivision.
20-10	Residential Service not in S/D	This budget category provides for the expenses incurred by the Water Division for customer requests for service not located in a subdivision.
20-11	Residential S/D	This budget category provides for the expenses incurred by the Water Division for developer requests for Water facilities located in a subdivision.
20-12	Apartments	This budget category provides for the expenses incurred by the Water Division for developer
20-13	General Power Service	This budget category provides for the expenses incurred by the Water Division for customer requests for new General Power Service.
20-14	Relocate At Customer Request	This budget category provides for the expenses incurred to relocate at the customer's request.
20-15	Street Improvements	This budget category provides for the expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated. Please see Appendix 25-9 through 25-14.
20-16	New Water Main	This budget category provides for the expenses incurred for the installation of miscellaneous new water mains and facilities.
20-17	Lead Service Replacement	Replace lead services with copper at known locations throughout Shelby County.
20-18	Purchase of Meters	The number of meters purchased is based on projections for the coming year. These meters include meters that will be paid for by customer contributions relating to new residential and commercial development and replacement of existing meters.
20-19	Planned Maintenance	Construction in minor work that arises daily. These are mainly calls that go through the Control Room, to include pole knockdowns, gas, and water leaks, etc.
20-20	Emergency Maintenance	This budget line item provides for emergency repair work when leaks and cut facilities require immediate repair.
20-21	Contributions in Aid of Construction	Contributions in aid of construction are the donations or contributions of cash, services, or property from states, municipalities, or other governmental agencies, individuals, and others for construction purposes.

**General Plant**

20-22	Buildings and Structures	Please see Appendix starting at 23-2.
20-23	Security Automation	Please see Appendix starting at 23-6.
20-24	Fleet Capital Power Operated Equip	Please see Appendix 23-7.
20-25	Fleet Capital Water Transportation Equip	Please see Appendix 23-8.
20-26	IS/IT Projects Water	Please see Appendix 23-5.
20-27	Tools & Equipment	
20-28	Lab Equipment	Please see Appendix 23-6.
20-29	Contingency Fund-General Plant	Please see Appendix 23-7.
20-30	Delayed Cost Allocations	These are funds budgeted in the current year for items that may arrive late from the previous year's budget.

## NOTES FOR PAGE 21—CAPITAL EXPENDITURES BUDGET

**Production System****Pumping Stations****Allen Pumping Station**

21-1	Medium Voltage Breaker & Switchgear Replacements (CO)	Description/Location	Design, purchase and installation of the 12kV and 5 kV circuit breakers/Switchgear at Allen Pumping Station
		Purpose/Necessity	Parts for the existing 12kV and 5 kV Circuit Breakers are unavailable and there are safety concerns related to the existing breakers
21-2	Station Rehabilitation	Description/Location	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components. Allen Pumping Station
		Purpose/Necessity	The existing infrastructure can no longer be operated safely or reliably.
21-3	Install Distributed Process Control System Replacement	Description/Location	Install Distributed Process Control System Replacement
		Purpose/Necessity	The existing DPC system is outdated and parts can no longer be obtained for the existing controller. This is needed for regulatory compliance with Tennessee Department of Environment and Conservation standards.
21-4	Dedicated Well Electric Circuit Replacement	Description/Location	Dedicated Well Electric Circuit Replacement
		Purpose/Necessity	The existing underground electric loop for the Allen wells is currently not reliable and causes well downtime. Moving the wells to overhead electric will make wells more reliable.
21-5	Engineer Distributed Process Control System Replacement	Description/Location	Design, Construction Administration and Integration needed to replace the existing distributed process control system. Allen Pumping Station
		Purpose/Necessity	The existing DPC system is outdated and parts can no longer be obtained for the existing controller. This is needed for regulatory compliance with Tennessee Department of Environment and Conservation standards.

**Davis Pumping Station**

21-6	Station Rehabilitation (CO)	Description/Location	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components at Davis Pumping Station
		Purpose/Necessity	The existing infrastructure can no longer be operated safely or reliably.

**Lichterman Pumping Station**

21-7	Install Distributed Process Control System Replacement	Description/Location	Install Distributed Process Control System Replacement
		Purpose/Necessity	The existing DPC system is outdated and parts can no longer be obtained for the existing controller. This is needed for regulatory compliance with Tennessee Department of Environment and Conservation standards.
21-8	Engineer Distributed Process Control System Replacement	Description/Location	Design, Construction Administration and Integration needed to replace the existing distributed process control system.
		Purpose/Necessity	The existing DPC system is outdated and parts can no longer be obtained for the existing controller. This is needed for regulatory compliance with Tennessee Department of Environment and Conservation standards.

## NOTES FOR PAGE 21–CAPITAL EXPENDITURES BUDGET (Continued)

**Production System (Continued)****Pumping Stations (Continued)****Mallory Pumping Station**

21-9	Generator Replacement	Description/Location	Design, Construction Administration and Integration needed to replace the existing distributed process control system.
		Purpose/Necessity	The existing generator is old and has frequent downtime. Generator uptime is needed when storms/power outages exist.
21-10	Filter Media Replacement	Description/Location	Design, Construction Administration and Integration needed to replace filter media at Mallory Pumping Station
		Purpose/Necessity	The existing filter media is old and needs to be replaced. Filter media should be replaced every 15-20 years.

**McCord Pumping Station**

21-11	Filter Media Replacement (CO)	Description/Location	Design, Construction Administration and Integration needed to replace filter media at McCord Pumping Station Filter #3.
		Purpose/Necessity	The existing filter media was removed to investigate some potential issues with the filter structure. Filter media and flume blocks need to be replaced at this time.

**Morton Pumping Station**

21-12	VFD, Motor, Transformer Replacements	Description/Location	Design, Construction Administration and Integration needed to replace high service pump drive equipment.
		Purpose/Necessity	The existing VFD's chronically overheat and replacement parts are unavailable when the VFD's fail.
21-13	Station Rehabilitation (CO)	Description/Location	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components at Morton Pumping Station
		Purpose/Necessity	The existing infrastructure can no longer be operated safely or reliably.

**Shaw Pumping Station**

21-14	VFD, Motor, Transformer Replacements	Description/Location	Design, Construction Administration and Integration needed to replace the existing distributed process control system.
		Purpose/Necessity	The existing DPC system is outdated and parts can no longer be obtained for the existing controller. This is needed for regulatory compliance with Tennessee Department of Environment and Conservation standards.

**Miscellaneous Pumping Facilities**

21-15	Engineering Services Contract (CO)	Description/Location	Engineering Consultants on an "as-needed" basis. / As-needed.
		Purpose/Necessity	Water E&O has a need to retain Engineering Consultants on an "as-needed" basis. / Water Engineering does not have the expertise to perform certain engineering functions.
21-16	Water Operations Capital Items (CO)	Description/Location	This item is to account for unplanned Capital Items. / As-needed
		Purpose/Necessity	This is a projected budget amount to cover unforeseen Capital Items in the current year due to mechanical/electrical/etc. failure. / When equipment breaks, it must be fixed.

## NOTES FOR PAGE 22-CAPITAL EXPENDITURES BUDGET

**Production System (Continued)****Underground Storage Reservoirs****Mallory Pumping Station**

22-1	Construct Wash Water Recovery Basin Replacement	Description/Location	Construction of WWRB at Mallory Pumping Station
		Purpose/Necessity	The existing WWRB is the retrofitted Equalizing Basin. The operational performance of the existing WWRB is very poor. There are regulatory issues with the existing WWRB.

**Production Wells****Mallory Pumping Station**

22-2	Construct/Replace Well	Description/Location	Construction of a large water production well at Mallory Pumping Station.
		Purpose/Necessity	A number of the Mallory wells need to be replaced.

**Morton Pumping Station**

22-3	Construct/Replace Well	Description/Location	Construction of a large water production well. Morton Pumping Station
		Purpose/Necessity	A number of the Morton wells need to be replaced.

**Miscellaneous Pumping Facilities**

22-4	Well Failures	Description/Location	Construction of a large water production well. Various pumping station.
		Purpose/Necessity	Water production wells fail unexpectedly and need to be replaced.
22-5	Abandon Wells	Description/Location	To abandon water production wells that have reached the end of life.
		Purpose/Necessity	Well abandonment is needed to drill second generation wells on the same well site.

**Operations Maintenance**

22-6	Operations Maintenance	Description/Location	
		Purpose/Necessity	

**Land Purchase**

22-7	Land Purchase	Description/Location	Purchase water production well lots/Various locations.
		Purpose/Necessity	Well lots are needed to install new/replacement water production wells to provide an adequate source water supply for customers.
22-8	Contingency Fund - Production System	Description/Location	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.

**Distribution System - Major Projects****New Water Main**

22-9	Large Main Extensions	Description/Location	Large Main Extensions
		Purpose/Necessity	Provide more water to parts of Shelby County where there is a need or future need for more water.
22-10	Collecting Main Installation	Description/Location	This line item covers tying in new wells that are drilled at various locations.
22-11	Major Valve Replacements/Additions	Description/Location	The project will involve the replacement and additions of 12" and larger valves
		Purpose/Necessity	Replacement of non functioning and key valves and adding strategically place valves on primary and secondary feeders to optimize the ability to isolate large mains while minimizing the number of cut off customers
22-12	Main Replacement Projects	Description/Location	Older cast iron mains in older parts of town sometimes break several times and it is more feasible to replace the main than to continue to repair them.
		Purpose/Necessity	Old cast iron mains that have many breaks that occur on a section are candidates to be totally replaced.

**NOTES FOR PAGE 23—CAPITAL EXPENDITURES BUDGET (Continued)**

22-13	Miscellaneous Projects-Reimbursable	Description/Location	This project will involve laying 12" DISJ main in Cuba-Millington.
		Purpose/Necessity	This installation will help to address pressure and flow problems in the Shelby Forest area. There are a lot of hydrants in the area with a flow rate below the state requirement of 500 gpm at 20 PSI.
		Purpose/Necessity	Miscellaneous Projections
22-14	Miscellaneous Projections	Description/Location	Miscellaneous Projections
		Purpose/Necessity	MLGW will meet the utility relocation needs of the City, County, and State for their street improvement projects.
22-15	Minor System Improvements	Description/Location	Minor Improvements to Water Distribution System
		Purpose/Necessity	Minor Improvements to Water Distribution System

**Street Improvements**

22-16	City of Memphis Projects	Description/Location	These are street improvement projects done by the City of Memphis requiring the relocation of MLGW water mains.
		Purpose/Necessity	MLGW will meet the utility relocation needs of the City, County, and State for their street improvement projects.
22-17	TDOT Projections	Description/Location	TDOT Projections
		Purpose/Necessity	TDOT Projections
22-18	City of Bartlett Projects	Description/Location	These are street improvement projects done by the City of Bartlett requiring the relocation of MLGW water mains.
		Purpose/Necessity	MLGW will meet the utility relocation needs of the City, County, and State for their street improvement projects.
22-19	Shelby County Projects	Description/Location	These are street improvement projects done by Shelby County requiring the relocation of MLGW water mains.
		Purpose/Necessity	MLGW will meet the utility relocation needs of the City, County, and State for their street improvement projects.
22-20	Miscellaneous Projections	Description/Location	Miscellaneous Projections
		Purpose/Necessity	Miscellaneous Projections

**NOTES FOR PAGE 23—CAPITAL EXPENDITURES BUDGET**

**Distribution System - Major Projects Cont.**

23-1	Lead Replacement	Description/Location	Miscellaneous Projections
		Purpose/Necessity	Miscellaneous Projections

**General Plant**

**Buildings and Structures**

23-2	Training Roadway	Description/Location	Training roadway to be located at the Memphis Light Water and Water University.
		Purpose/Necessity	The roadway will help reduce accident/incident rates by providing a training ground with equipment.
23-3	Storage Building for Electric Training Trailer	Description/Location	Storage Building for Electric Training Trailer
		Purpose/Necessity	To be used for storage.

**Goodlett Property**

23-4	Replace HVAC roof top Units	Description/Location	HVAC roof top
		Purpose/Necessity	Replace HVAC roof top

**IS/IT PROJECT**

23-5	Laboratory Information Management System Replacement	Description/Location	Water Laboratory data information system replacement software.
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**Security Automation**

23-6	Security Automation	Description/Location	Security Automation
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**Purchase of Fleet Capital Power Operated Equipment**

23-7	Fleet Capital Power Operated Equipment	Description/Location	Division vehicles/equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items, in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet area's needs. Additions are evaluated based on justification request and proper approval.

**NOTES FOR PAGE 23–CAPITAL EXPENDITURES BUDGET (Continued)****Distribution System - Major Projects Cont.****Purchase of Fleet Capital Transportation Equipment**

23-8	Fleet Capital Transportation Equipment	Description/Location	Division vehicles/equipment used for work in and around Shelby County.
		Purpose/Necessity	To purchase approved budget items, in order to provide equipment for crews to complete job assignments. Replacements are evaluated based on age, actual operational usage, projected usage, repair cost and frequency, parts availability, and effectiveness to meet area's needs. Additions are evaluated based on justification request and proper approval.
23-9	Contingency Funds – General Plant	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	



## GLOSSARY

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**ACD:** Automatic Call Distributor.

**ACSR:** Aluminum, Cable Steel Reinforced cable.

**ADA:** Americans with Disabilities Act.

**BNSF:** Burlington Northern Santé Fe Railway Company.

**BTU:** British Thermal Unit.

**Capital Budget:** Fixed assets and capital projects to be acquired or contracted during the budget period.

**Capital Expenditure:** Expenditures that result in the acquisition of, or addition to, fixed assets including land, buildings, improvements, machinery, and equipment.

**CA:** Cab to Axle.

**CARES:** Computer Assisted Restoration of the Electric System.

**CCTV:** Closed-circuit television.

**C&C:** Cab and Chassis.

**CC&C:** Crew Cab & Chassis.

**CKT:** Circuit.

**CN:** Canadian National Railway.

**CNG:** Compressed Natural Gas.

**CO:** Carryover.

**CPU:** Central Processing Unit.

**CSX:** CSX Transportation.

**CSX/RR:** CSX Transportation Railroad.

**DA:** Distribution Automation.

**DASD:** Direct Access Storage Device.

**DB:** Decibel.

**DDC:** Direct Digital Controller.

**Debt Service:** Principal and interest payments on outstanding bonds.

**DIMP:** Distribution Integrity Management Program.

**DOT:** Department of Transportation.

## GLOSSARY

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**ERC:** Emergency Response Center.

**ESO:** Electric Systems Operations.

**Expenditure:** The outflow of funds paid or to be paid for an asset obtained or goods and services obtained regardless of when the expense is actually paid.

**FC:** Suffix for connector type.

**FCI:** Failed Circuit Indicators.

**FEMA:** Federal Emergency Management Agency.

**FIS:** Facility Information System.

**Fixed Assets:** Assets that are used in a productive capacity, have physical substance, are relatively long-lived, and provide future benefit, which is readily measurable, such as land, buildings, machinery, furniture, vehicles, other equipment and capital projects. Those assets that are capitalized and depreciated over a period of time.

**GAAP:** Generally Accepted Accounting Principals. Uniform minimum standards and guidelines for disclosing, recording and reporting financial transactions and entries.

**GASB:** Governmental Accounting Standards Board.

**GIS:** Geographic Information System.

**GPS:** Global Positioning System.

**HHSC:** Hickory Hill Service Center.

**HMI:** Human Machine Interface.

**HP:** High Pressure.

**HSP:** High Service Pump.

**HVAC:** Heating, Ventilation, and Air Conditioning.

**IC RR:** Illinois Central Railroad.

**IDS:** Intrusion Detection System.

**IR:** Infrared.

**JT:** Joint Trench.

**kV:** Kilo Volts, a unit of potential equal to a thousand volts.

**KVA:** Kilo Volt-Ampere, one thousand volt-amps.

**KW:** Kilowatt.

## GLOSSARY

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**LC:** Suffix for connector type.

**LNG:** Liquefied Natural Gas.

**LOL:** Leased Outdoor Lighting.

**LWB:** Long Wheel Base pickup.

**MAOP:** Maximum allowable operating pressure.

**MDMS:** Meter Data Management System.

**MG:** Millions of gallons.

**MGD:** Million gallons per day.

**MH/DL:** Manhole/Duct line.

**MHz:** Megahertz.

**MSS:** Management Support System.

**NERC:** North American Electric Reliability Corporation.

**Net Assets:** The difference between assets and liabilities for a period of time.

**O&M:** Operations and Maintenance.

**OH:** Overhead.

**OPEB:** Other Post Employment Benefits.

**Operating Budget:** The portion of the budget that pertains to daily operations that provide basic services. The operating budget contains approved expenditures.

**OPGW:** Optical Ground Wire.

**OTL:** Oracle Time and Labor.

**OTDR:** Optical Time Domain Reflectometer.

**Pad:** Pad-mounted transformer.

**PCB:** Polychlorinated Bithenyls.

**PSI:** Pound per Square Inch.

**PTAC:** Packaged terminal air conditioning.

**PTO:** Power Take Off.

## GLOSSARY

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**PV:** Photo-Voltaic or solar cells.

**ROW:** Right of Way.

**RR:** Railroad.

**RTU:** Remote Terminal Unit.

**Small Cells/5G:** small equipment utilized to transmit communication signals to enhance speed and reliability of WIFI and cellular operations; fifth generation of mobile network for higher bandwidth and faster access.

**SAN:** Storage Area Network.

**SC:** Suffix for connector type.

**SCADA:** Supervisory Control and Data Acquisition, used to monitor and control the electric system. SCADA gathers information and transfers the information to a central site.

**SCBPU:** Shelby County Board of Public Utilities.

**SPCC:** Spill Prevention, Control and Countermeasure.

**T-line:** Transmission line.

**TDOT:** Tennessee Department of Transportation.

**TEMA:** Tennessee Emergency Management Agency.

**TIMP:** Transmission Integrity Management Program

**TOU:** Time of Use.

**UG:** Underground.

**UPS:** Uninterruptible Power Source.

**URD:** Underground Residential Development.

**USPS:** United States Postal Service.

**VAV:** Variable Air Volume.

**VFD:** Variable Frequency Drive.

**WAQL:** Water Assurance Quality Lab.

**WWRB:** Wash water Recovery Basin.

**XFMR:** Symbol used to denote transformer.

**XHP:** Extra High Pressure.

## GLOSSARY

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**XXHP:** Extra, Extra High Pressure.