



**MLGW**

SERVING YOU IS  
WHAT WE DO



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GHT	254	550	254	274	154	10
RDW	650	220	750	273	825	5
TRG	241				954	
RTG	254				125	
WEF	784		12		741	
HRT	453		15		741	

# 2023 Budget

City Council Approved December 06, 2022



## The MLGW Board of Commissioners & Advisory Board Members



**Chairman Mitch Graves**



**Vice-Chairman Leon Dickson Sr.**



**Commissioner Carl Person**



**Commissioner Cheryl Pesce**



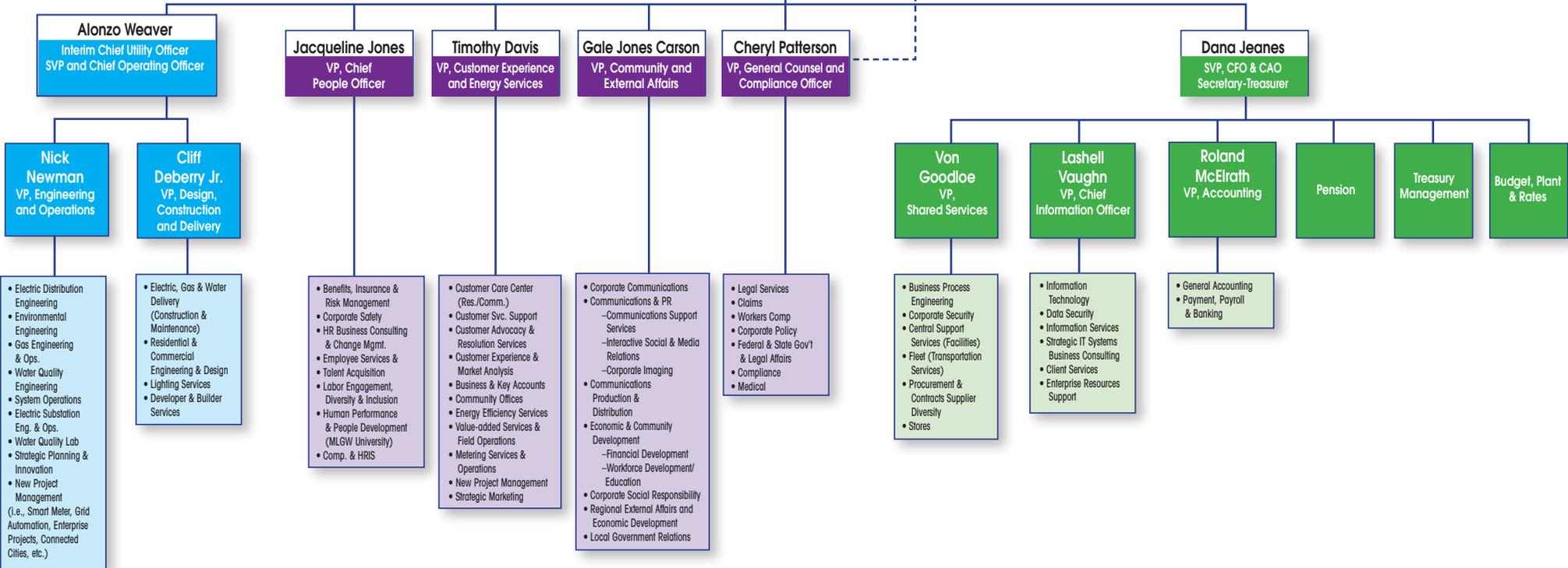
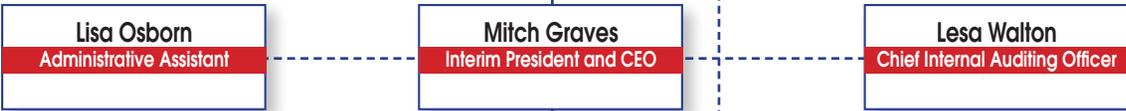
**Commissioner Michael Pohlman**

**Advisory Board Member (Vacant)**

**Advisory Board Member (Vacant)**



# Board of Commissioners and Senior Leadership Council



## TABLE OF CONTENTS

Section	Page
<b>Table of Contents</b>	1
<b>How to Read the Budget</b>	B1-B3
<b>MLGW and Division Leadership</b>	L1 - L7
<b>2023 Budget Highlights</b>	H1
<b>All Divisions</b>	
Income, Expense, and Changes in Net Position Comparison 2023 EGW	2
FERC Detail 2023 EGW	2a-2d
Capital Expenditures 2023 EGW	3
<b>Electric Division</b>	
Income, Expense, and Changes in Net Position Comparison	E 4
FERC Detail	4a-4c
Source and Application of Funds	5
Capital Expenditures Comparison	6
Substation & Transmission – Detail	7-8
Transmission and Distribution System Major Projects – Detail	8-9
General Plant – Detail	9-11
Carryover Summary	12
<b>Gas Division</b>	
Income, Expense, and Changes in Net Position Comparison	G 12
FERC Detail	12a-12c
Source and Application of Funds	13
Capital Expenditures Comparison	14
Production, Distribution System Major Projects, and General Plant – Detail	15-16
General Plant – Detail	16-17
Carryover Summary	18
<b>Water Division</b>	
Income, Expense, and Changes in Net Position Comparison	W 18
FERC Detail	18a-18c
Source and Application of Funds	19
Capital Expenditures Comparison	20
Production System	21-23
Distribution System Major Projects – Detail	23
General Plant – Detail	24
Carryover Summary	25
<b>2022 Projection-2027 Capital Improvement Program</b>	CIP1 - CIP3
<b>Appendix</b>	A1-A35
<b>Glossary</b>	G1-G4

# **How to Read the Budget**

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## **INTRODUCTION**

We are pleased to submit the 2023 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 2023 operating and capital budgets are developed simultaneously and are presented together in a combined budget. In this manner, MLGW can 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 October 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 October with the final budget approved by the Memphis City Council scheduled in November.

## **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 2023 Budget.

### **ELECTRIC**

The first page of this section (Page E4) is the *Income, Expense, and Changes in Net Position Comparison* for the Electric Division. It provides a side-by-side view of the 2021 Actual Expenditures, 2022 Budget and the 2023 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 2022 Budget, 2023 Budget and the difference between the 2022 Budget and 2023 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 2021 Actual, 2022 Budget and the 2023 Budget. Again, the last column is the Reference Number that can be used to look up explanations of each line item. The next five pages (7-11) 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 2023 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 presents the Division's 5-year capital improvement plan for the Electric, Gas, and Water Divisions' infrastructure by work order type (WOT).

## **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

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 440,000 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 440,000 electric customers, over 314,000 gas customers, and water to over 258,000 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.

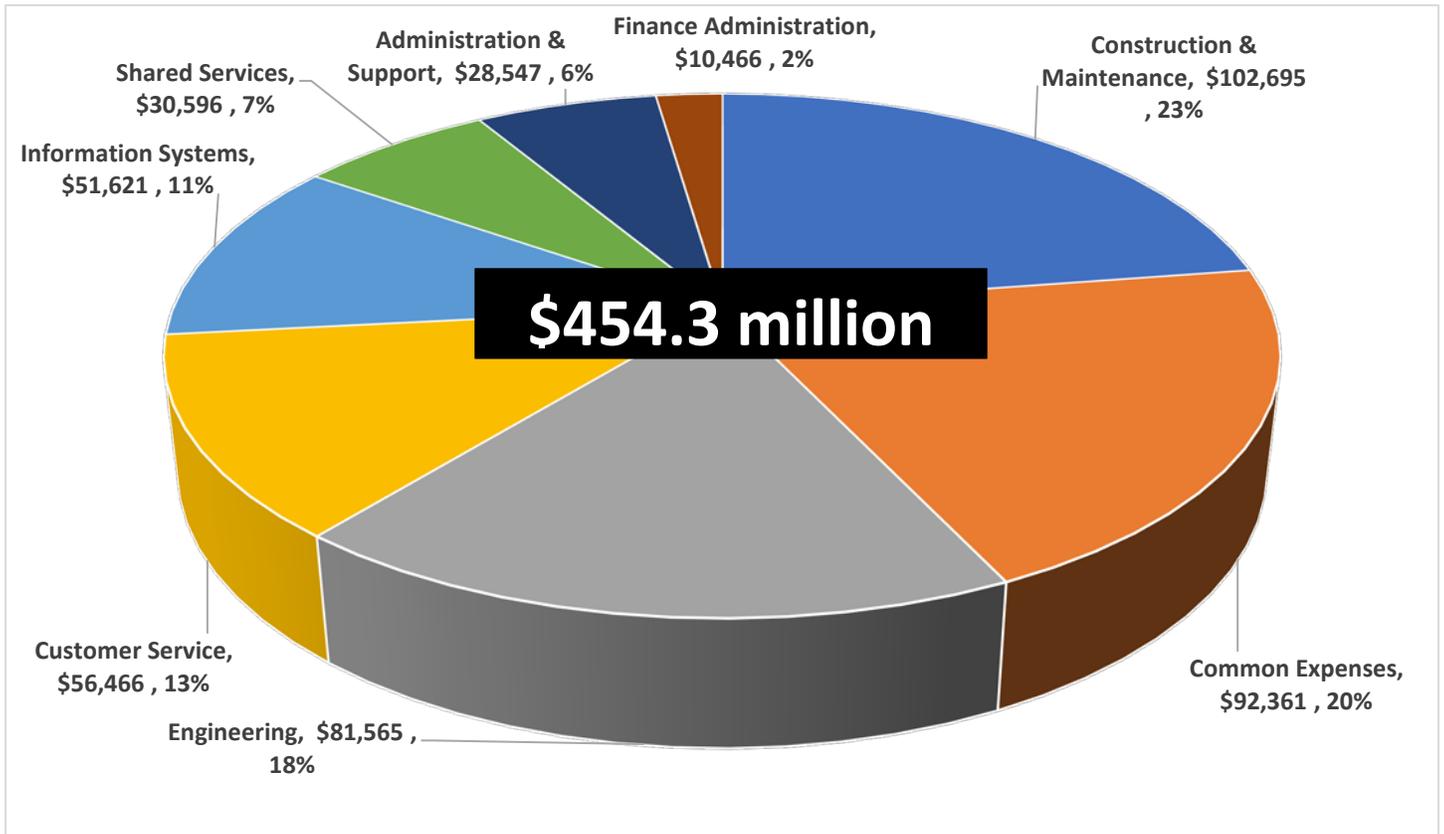
While some utilities obtain drinking water from surface lakes or rivers, MLGW supplies water from the Memphis aquifer, beneath Shelby County. The Memphis aquifer is a treasure to the Memphis and Shelby County areas. The Memphis aquifer contains more than 100 trillion gallons of water that are more than 2,000 years old. MLGW operates this artesian well system by utilizing 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 the President & CEO with oversight provided by the MLGW Board of Commissioners. Memphis Light Gas and Water's leadership has a strong affinity for safety and customer services. The Division's leadership principles are exuded through the 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.

# 2023 Operations & Maintenance Budget by Organization

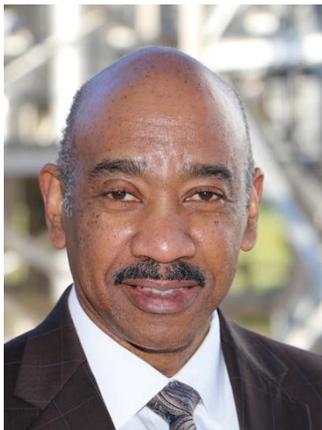




**Mr. Graves Graves, Interim President and Chief Executive Officer**, Mr. Graves has been with West Cancer Center since 2019 and has over 30 years in healthcare leadership positions. Prior to joining West, he was CEO of HealthChoice, LLC. Mr. Graves currently serves as the board chairman and Interim President & CEO for Memphis Light, Gas and Water, as well as serving as board member for Qsource and Grace St. Luke's School Alumni. Additionally, Mr. Graves serves on the Church Health Center's finance committee and is a member and former board Vice President of the Economic Club of Memphis. At the local level, Mr. Graves has previously served on the boards of Christian Brothers University (Chairman), United Methodist Neighborhood Centers (Chairman), Revenue Assurance, Precision Infusion, Alliance Health Service, Community Care Associates, First Eight Memphis, and Methodist Federal Credit Union. On a national level, he previously served as a member of United Healthcare's Executive Advisory Council and Cigna's National Health Care Advisory Council. As a life-long Memphian, Mr. Graves has always been active in his community. In 2015, he served as co-chairman of Memphis Mayor Jim Strickland's transition team. In 2018, Mr. Graves was nominated and selected for Leadership Tennessee's Class VI which he completed in 2019. Mr. Graves graduated from Christian Brothers University with a Bachelor of Science degree in business administration with a concentration in finance and economics. He was awarded Christian Brothers University's Distinguished Alumnus Award in 2012 and later became the university's Chairman of the Board of Trustees in August 2013. Mr. Graves was voted into Christian Brothers High School's Hall of Fame and inducted in 2015. In 2018, he was awarded Grace St. Luke's School's GSL Outstanding Alumnus of the Year.



**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 member and past President 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, Interim Chief Utility Officer, 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 an 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.



**Von Goodloe, Vice-President of Shared 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.



**Jacqueline Jones, Vice President and Chief People Officer**, is responsible for developing and executing human resource strategy in support of the overall business plan and strategic direction of the organization, specifically in the areas of succession planning, talent management, change management, organizational and performance management, training and development, and compensation. She joined MLGW in December 2020. Prior to joining MLGW, she served in executive roles at Kraft Foods, Inc and Lennox International.

Jackie has a strong track record of human resource experience supporting management teams and employees through rapid change and growth. She is experienced in developing and executing strategic and tactical programs, driving enterprise people strategy, delivering on commitments, and creating a winning culture. Her well-rounded experience includes working in corporate and business unit environments as well as working in union/non-union manufacturing plants including both line and staff roles. Jackie's leadership style is highlighted by her ability to be a strategic thinker, courageous change agent and action-oriented leader with a high degree of interpersonal skills and credibility. Jones is a graduate of the University of Memphis where she received a BBA degree in Production Operations Management. She also holds an MBA from Edgewood College in Madison, WI.



**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).



**Timothy Davis, Vice-President Customer Experience and Energy Services**, is responsible for driving exceptional experiences for all customers and potential customers. Mr. Davis leads efforts to create customer-centric strategies and initiatives enhancing customer satisfaction throughout the company. Prior to joining MLGW in 2022, Mr. Davis was Director of Customer Service, Field Operations for Austin Energy. Mr. Davis held positions at San Antonio Water and Tucson Electric where he was responsible for all aspects of the Customer Experience, including Customer Engagement, Customer Programs, Sales, Energy Efficiency Programs, Customer Service Operations, Account Management, and Community Investment & Corporate Philanthropy. Mr. Davis earned a Bachelor of Science Degree in Business from the University of Redlands and a Master of Science Degree in Leadership & Management from the University of La Verne. Mr. Davis is also a graduate of the University of California's Executive Management Program, along with executive programs at the University of Chicago and University of Southern California.



**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. In addition to her experience at MLGW and FedEx, for many years she was a freelance writer for a couple of local weekly publications. Ms. Carson created, produced, and hosted the local cablevision program, Memphis Style Politics, for approximately 10 years. 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). Among the many professional, civic, and political awards she has received, her most cherished are the Memphis Business Journal's 2017 Super Women in Business Award: The Girls, Inc. "She Knows Where She's Going" award; the April 4th Foundation's H. Ralph Jackson Trailblazer Award; the NBA Grizzlies' Community Heroes Award; the Silver Star Achievers Award; Who's Who in Memphis Twitter; the Ruby R. Wharton Outstanding Women Award for Public Awareness; the 2015 Keepers of the Dream Award; the 2015 Kindle Award; the Girl Scouts Heart of the South's One Smart Cookie Award; and the University of Memphis Alumni Association Journalism and Strategic Media Outstanding Alumni Award. Ms. Carson has also received numerous professional awards related to her work. 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.



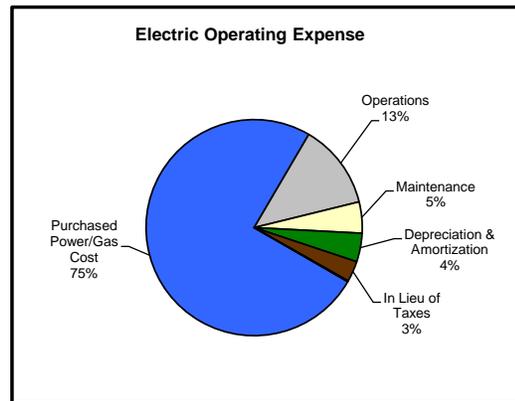
**Lesa Walton, Chief Internal Auditing Officer**, is responsible for the overall operations of Internal Auditing functions to include developing, scheduling, and directing financial, operational, and administrative audit functions. This includes analyzing, reviewing and appraising the adequacy and effectiveness 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.

## 2023 MLGW BUDGET HIGHLIGHTS

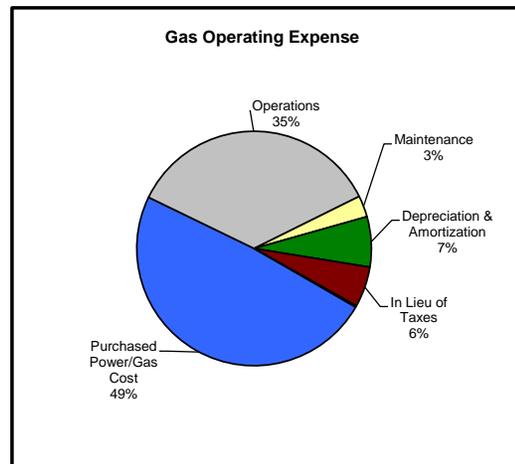
### ELECTRIC DIVISION (In Thousands)

<b>Total Operating Revenue</b>	<b>\$ 1,438,242</b>
<b>Purchased Power</b>	<b>\$ 1,096,347</b>
<b>Total O&amp;M Expense</b>	<b>\$ 254,001</b>
<b>Other Operating Expense</b>	<b>\$ 109,467</b>
<b>Total Operating Expense</b>	<b>\$ 1,459,815</b>
<b>Operating Income (Loss)</b>	<b>\$ (21,573)</b>
<b>Change in Net Position</b>	<b>\$ 12,401</b>
<b>CAPITAL PROGRAM</b>	<b>\$ 231,923</b>



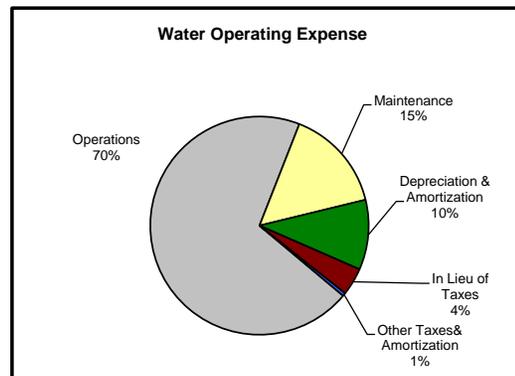
### GAS DIVISION (In Thousands)

<b>Total Operating Revenue</b>	<b>\$ 341,481</b>
<b>Purchased Gas</b>	<b>\$ 196,719</b>
<b>Total O&amp;M Expense</b>	<b>\$ 104,717</b>
<b>Other Operating Expense</b>	<b>\$ 43,899</b>
<b>Total Operating Expense</b>	<b>\$ 345,335</b>
<b>Operating Income (Loss)</b>	<b>\$ (3,854)</b>
<b>Change in Net Position</b>	<b>\$ (7,684)</b>
<b>CAPITAL PROGRAM</b>	<b>\$ 24,281</b>



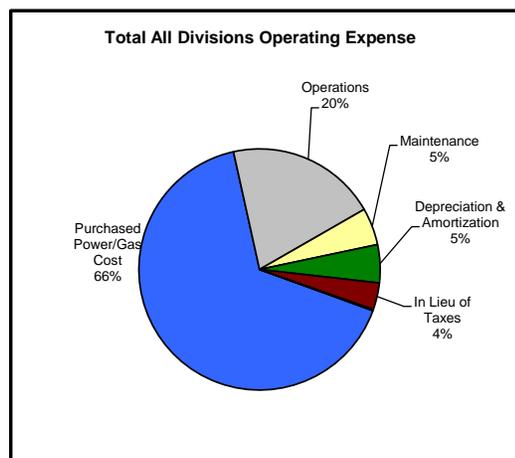
### WATER DIVISION (In Thousands)

<b>Total Operating Revenue</b>	<b>\$ 130,626</b>
<b>Total O&amp;M Expense</b>	<b>\$ 95,597</b>
<b>Other Operating Expense</b>	<b>\$ 16,764</b>
<b>Total Operating Expense</b>	<b>\$ 112,361</b>
<b>Operating Income (Loss)</b>	<b>\$ 18,265</b>
<b>Change in Net Position</b>	<b>\$ 15,909</b>
<b>CAPITAL PROGRAM</b>	<b>\$ 42,532</b>



### ALL DIVISIONS (In Thousands)

<b>TOTAL OPERATING REVENUE</b>	<b>\$ 1,910,349</b>
<b>TOTAL PURCHASED POWER &amp; GAS</b>	<b>\$ 1,293,066</b>
<b>TOTAL O&amp;M EXPENSE</b>	<b>\$ 454,315</b>
<b>TOTAL OTHER OPERATING EXPENSE</b>	<b>\$ 170,130</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>\$ 1,917,511</b>
<b>OPERATING INCOME</b>	<b>\$ (7,162)</b>
<b>CHANGE IN NET POSITION</b>	<b>\$ 20,626</b>
<b>TOTAL CAPITAL PROGRAM</b>	<b>\$ 298,736</b>





# ALL DIVISIONS

**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**FOR CALENDAR YEAR OF 2023**

ALL DIVISIONS

PAGE 2

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b><u>OPERATING REVENUE</u></b>				
Sales Revenue	1,411,972	285,096	125,729	1,822,797
Revenue Adjustment for Uncollectibles	(3,106)	(799)	(629)	(4,534)
Non-Sales Revenue	29,376	57,184	5,526	92,086
<b>OPERATING REVENUE</b>	<b>1,438,242</b>	<b>341,481</b>	<b>130,626</b>	<b>1,910,349</b>
<b><u>OPERATING EXPENSE</u></b>				
Purchased Power	1,096,347	-	-	1,096,347
Purchased Gas	-	166,335	-	166,335
Compressed Natural Gas (CNG)	-	132	-	132
Liquefied Natural Gas (LNG)	-	2,268	-	2,268
Industrial Gas	-	27,984	-	27,984
Production Expense	-	1,566	15,011	16,577
Transmission Expense	8,727	-	-	8,727
Distribution Expense	54,453	30,929	17,711	103,093
Customer Accounts Expense	18,280	12,245	8,598	39,123
Customer Service & Information Expense	2,266	1,892	1,148	5,306
Sales Expense	2,344	430	344	3,118
Administrative & General Expense	99,695	47,472	35,663	182,830
<b>OPERATING EXPENSE</b>	<b>1,282,112</b>	<b>291,253</b>	<b>78,475</b>	<b>1,651,840</b>
<b><u>MAINTENANCE EXPENSE</u></b>				
Transmission Expense	3,443	-	-	3,443
Production Expense	-	819	3,613	4,432
Distribution Expense	59,944	7,776	9,864	77,584
Administrative & General Expense	4,849	1,588	3,645	10,082
<b>MAINTENANCE EXPENSE</b>	<b>68,236</b>	<b>10,183</b>	<b>17,122</b>	<b>95,541</b>
<b><u>OTHER OPERATING EXPENSE</u></b>				
Depreciation Expense	59,647	18,591	11,197	89,435
Payment in Lieu of Taxes	45,273	19,298	4,600	69,171
F.I.C.A. Taxes	1,757	672	515	2,944
Amortization of Legacy Meters	1,192	1,423	452	3,067
Amortization of Software	1,598	3,915	-	5,513
<b>OTHER OPERATING EXPENSE</b>	<b>109,467</b>	<b>43,899</b>	<b>16,764</b>	<b>170,130</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>1,459,815</b>	<b>345,335</b>	<b>112,361</b>	<b>1,917,511</b>
<b><u>INCOME</u></b>				
Operating Income	(21,573)	(3,854)	18,265	(7,162)
Other Income	42,608	(32)	1,094	43,670
Reduction of Plant Cost Recovered through CIAC	(37,371)	(18,157)	(6,412)	(61,940)
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>(16,336)</b>	<b>(22,043)</b>	<b>12,947</b>	<b>(25,432)</b>
<b><u>DEBT EXPENSE</u></b>				
Interest Expense - Long Term Debt	11,896	5,377	4,470	21,743
Amortization of Debt Discount & Expense	(3,262)	(1,579)	(1,020)	(5,861)
<b>TOTAL DEBT EXPENSE</b>	<b>8,634</b>	<b>3,798</b>	<b>3,450</b>	<b>15,882</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>(24,970)</b>	<b>(25,841)</b>	<b>9,497</b>	<b>(41,314)</b>
Contributions in Aid of Construction	37,371	18,157	6,412	61,940
<b>CHANGE IN NET POSITION</b>	<b>12,401</b>	<b>(7,684)</b>	<b>15,909</b>	<b>20,626</b>

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
FOR CALENDAR YEAR OF 2023**

ALL DIVISIONS

PAGE 2a

DESCRIPTION	THOUSANDS OF DOLLARS			
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL
<b>OPERATING REVENUE</b>				
Sales Revenue	1,411,972	285,096	125,729	1,822,797
Revenue Adjustment for Uncollectibles	(3,106)	(799)	(629)	(4,534)
<b>Non-Sales Revenue</b>				
Forfeited Discounts	11,578	3,136	1,571	16,285
Miscellaneous Service Revenue	10,000	2,100	2,000	14,100
Cross Connection Revenue	-	-	1,400	1,400
Other Operating Revenue	1,476	564	420	2,460
Compressed Natural Gas (CNG)	-	288	-	288
Liquefied Natural Gas (LNG)	-	4,284	-	4,284
Industrial Gas Revenue	-	28,999	-	28,999
Rent from Electric/Gas/Water Property	6,322	7,228	135	13,685
Transported Gas	-	10,585	-	10,585
<b>Total Non-Sales Revenue</b>	<b>29,376</b>	<b>57,184</b>	<b>5,526</b>	<b>92,086</b>
<b>OPERATING REVENUE</b>	<b>1,438,242</b>	<b>341,481</b>	<b>130,626</b>	<b>1,910,349</b>
<b>OPERATING EXPENSE</b>				
Purchased Power	1,096,347	-	-	1,096,347
Purchased Gas	-	166,335	-	166,335
Compressed Natural Gas (CNG)	-	132	-	132
Liquified Natural Gas (LNG)	-	2,268	-	2,268
Industrial Gas	-	27,984	-	27,984
<b>Production Expense</b>				
Chemicals	-	-	1,688	1,688
Fuel or Power Purchased for Pumping	-	-	7,500	7,500
Miscellaneous Expense	-	-	1,935	1,935
Operations Production Water Treatment	-	-	76	76
Operation Labor and Expenses	-	1,422	3,158	4,580
Operation Supervision and Engineering	-	144	309	453
Pumping Labor and Expenses	-	-	345	345
<b>Total Production Expense</b>	<b>-</b>	<b>1,566</b>	<b>15,011</b>	<b>16,577</b>
<b>Transmission Expense</b>				
Load Dispatching	689	-	-	689
Miscellaneous Transmission Expenses	1,391	-	-	1,391
Operation Supervision and Engineering	6,225	-	-	6,225
Station Expenses	422	-	-	422
Underground Transmission Line Expenses	-	-	-	-
<b>Total Transmission Expense</b>	<b>8,727</b>	<b>-</b>	<b>-</b>	<b>8,727</b>
<b>Distribution Expense</b>				
Customer Installation Expenses	-	5,392	2,946	8,338
Distribution Load Dispatching Expense	1,619	831	-	2,450
Mains and Services	-	3,543	-	3,543
Measuring and Regulating Expenses	-	76	-	76
Meter and House Regulator Expenses	778	3,320	1,600	5,698
Miscellaneous Distribution Expenses <sup>(1)</sup>	33,377	13,366	9,980	56,723
Operation Supervision and Engineering	4,524	4,386	2,772	11,682
Overhead Distribution Line Expense	5,725	-	-	5,725
Rents	-	15	-	15
Services on Customers' Premises	5,414	-	-	5,414
Station Expenses	1,560	-	-	1,560
Storage Facilities	-	-	122	122
Street Lighting and Signal System Expenses	366	-	-	366
Transmission and Distribution Lines	-	-	291	291
UG Distribution	1,090	-	-	1,090
<b>Total Distribution Expense</b>	<b>54,453</b>	<b>30,929</b>	<b>17,711</b>	<b>103,093</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 2023**

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	17,267	10,856	7,550	35,673
Meter Reading Expenses	869	1,261	923	3,053
Supervision-Customer Accounting and Collection	144	128	125	397
<b>Total Customer Accounts Expense</b>	<b>18,280</b>	<b>12,245</b>	<b>8,598</b>	<b>39,123</b>
<b>Customer Service &amp; Information Expense</b>				
Customer Assistance Expenses	1,173	808	603	2,584
Informational and Instructional Advertising Expenses	163	54	244	461
Miscellaneous Customer Service & Informational Expenses	499	714	-	1,213
Supervision-Customer Service and Information	431	316	301	1,048
<b>Total Customer Service &amp; Information Expense</b>	<b>2,266</b>	<b>1,892</b>	<b>1,148</b>	<b>5,306</b>
<b>Sales Expense</b>				
Miscellaneous Sales Expenses	2,344	430	344	3,118
<b>Total Sales Expense</b>	<b>2,344</b>	<b>430</b>	<b>344</b>	<b>3,118</b>
<b>Administrative &amp; General Expense</b>				
Administrative and General Salaries	16,665	6,754	4,665	28,084
Administration Expenses Transferred to Capital	(8,844)	(1,425)	(2,364)	(12,633)
Pension Expense	11,376	4,757	3,516	19,649
Other Active & Retiree Benefits	25,888	14,590	8,579	49,057
Other Post Employment Benefits Funding	787	329	243	1,359
Injuries and Damages	2,870	1,454	1,362	5,686
Miscellaneous General Expenses <sup>(2)</sup>	17,275	6,826	5,786	29,887
Office Supplies and Expenses	5,428	2,185	1,557	9,170
Outside Services Employed	20,482	7,294	7,167	34,943
Property Insurance	2,056	1,033	727	3,816
Rents-Miscellaneous	5,712	3,675	4,425	13,812
<b>Total Administrative &amp; General Expense</b>	<b>99,695</b>	<b>47,472</b>	<b>35,663</b>	<b>182,830</b>
<b>OPERATING EXPENSE</b>	<b>1,282,112</b>	<b>291,253</b>	<b>78,475</b>	<b>1,623,856</b>
<b><u>MAINTENANCE EXPENSE</u></b>				
<b>Transmission Expense</b>				
Maintenance of Overhead Transmission Lines	-	-	-	-
Maintenance of Station Equipment	1,364	-	-	1,364
Maintenance of Underground Transmission Lines	786	-	-	786
Maintenance of Structures and Improvements	46	-	-	46
Maintenance Supervision and Engineering	1,247	-	-	1,247
<b>Total Transmission Expense</b>	<b>3,443</b>	<b>-</b>	<b>-</b>	<b>3,397</b>
<b>Production Expense</b>				
Maintenance of Other Equipment	-	438	-	438
Maintenance of Pumping Equipment	-	-	1,036	1,036
Maintenance of Structures and Improvements	-	156	-	156
Maintenance of Water Treatment Equipment	-	-	1,299	1,299
Maintenance of Wells	-	-	1,130	1,130
Maintenance Supervision and Engineering	-	225	148	373
<b>Total Production Expense</b>	<b>-</b>	<b>819</b>	<b>3,613</b>	<b>4,432</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 2023**

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	-	-	574	574
Maintenance of Line Transformers	2,019	-	-	2,019
Maintenance of Mains	-	4,656	-	4,656
Maintenance of Meters	1,877	293	3,152	5,322
Maintenance of Miscellaneous Distribution Plant	730	-	96	826
Maintenance of Overhead Distribution Lines	33,084	-	-	33,084
Maintenance of Services	-	1,203	1,316	2,519
Maintenance of Station Equipment	2,020	-	-	2,020
Maintenance of Street Lighting and Signal System	3,406	-	-	3,406
Maintenance of Gas Distribution Facilities	-	-	-	-
Maintenance of Transmission and Distribution Mains	-	-	4,726	4,726
Maintenance of Underground Distribution Lines	13,562	-	-	13,562
Maintenance Supervision and Engineering	3,246	94	-	3,340
Measuring and Regulating Equipment Expenses	-	1,530	-	1,530
<b>Total Distribution Expense</b>	<b>59,944</b>	<b>7,776</b>	<b>9,864</b>	<b>77,584</b>
<b>Administrative &amp; General Expense</b>				
Maintenance of General Plant	4,623	1,455	3,645	9,723
Facilities Maintenance Expense	226	133	-	359
<b>Total Administrative &amp; General Expense</b>	<b>4,849</b>	<b>1,588</b>	<b>3,645</b>	<b>10,082</b>
<b>MAINTENANCE EXPENSE</b>	<b>68,236</b>	<b>10,183</b>	<b>17,122</b>	<b>95,541</b>
<b><u>OTHER OPERATING EXPENSE</u></b>				
Depreciation Expense	59,647	18,591	11,197	89,435
Payment in Lieu of Taxes	45,273	19,298	4,600	69,171
F.I.C.A. Taxes	1,757	672	515	2,944
Amortization of Legacy Meters	1,192	1,423	452	3,067
Amortization of Software	1,598	3,915	-	5,513
<b>OTHER OPERATING EXPENSE</b>	<b>109,467</b>	<b>43,899</b>	<b>16,764</b>	<b>170,130</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>1,459,815</b>	<b>345,335</b>	<b>112,361</b>	<b>1,917,511</b>
<b><u>INCOME</u></b>				
<b>Operating Income</b>	<b>(21,573)</b>	<b>(3,854)</b>	<b>18,265</b>	<b>(7,162)</b>
<b>Other Income</b>				
Expenses of Merchandising, Jobbing & Contracts	-	(2,823)	-	(2,823)
Revenues from Merchandising, Jobbing & Contracts	-	1,381	-	1,381
Revenues from Non-Utility Property	-	-	-	-
Revenues from Common Transportation Equipment	-	-	-	-
Revenues from Sinking & Other Funds-Interest Income	1,999	1,000	471	3,470
Medicare Part D Refund	311	110	160	581
Non-Operating Income - TVA Transmission Credit	38,298	-	-	38,298
Miscellaneous Non-Operating Income	2,000	300	463	2,763
<b>Total Other Income</b>	<b>42,608</b>	<b>(32)</b>	<b>1,094</b>	<b>43,670</b>
<b>Contributions in Aid of Construction</b>	<b>(37,371)</b>	<b>(18,157)</b>	<b>(6,412)</b>	<b>(61,940)</b>
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>(16,336)</b>	<b>(22,043)</b>	<b>12,947</b>	<b>(25,432)</b>

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
FOR CALENDAR YEAR OF 2023**

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	1,160	-	393	1,553
Interest on Ltd - Series 2016	1,419	1,419	732	3,570
Interest on Ltd - Series 2017	3,117	1,525	808	5,450
Interest on Ltd - Series 2020	6,200	2,433	2,537	11,170
<b>Total Interest Expense - Long-Term Debt</b>	<b>11,896</b>	<b>5,377</b>	<b>4,470</b>	<b>21,743</b>
<b>Amortization of Debt Discount &amp; Expense</b>				
Amortization of Debt Disc & Exp - Series 2014	(545)	-	(44)	(589)
Amortization of Debt Disc & Exp - Series 2016	(506)	(507)	(149)	(1,162)
Amortization of Debt Disc & Exp - Series 2017	(782)	(443)	(171)	(1,396)
Amortization of Debt Disc & Exp - Series 2020	(1,429)	(629)	(656)	(2,714)
<b>Total Amortization of Debt Discount &amp; Expense</b>	<b>(3,262)</b>	<b>(1,579)</b>	<b>(1,020)</b>	<b>(5,861)</b>
<b>TOTAL DEBT EXPENSE</b>	<b>8,634</b>	<b>3,798</b>	<b>3,450</b>	<b>15,882</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>(24,970)</b>	<b>(25,841)</b>	<b>9,497</b>	<b>(41,314)</b>
<b>Contributions in Aid of Construction</b>	<b>37,371</b>	<b>18,157</b>	<b>6,412</b>	<b>61,940</b>
<b>CHANGE IN NET POSITION</b>	<b>12,401</b>	<b>(7,684)</b>	<b>15,909</b>	<b>20,626</b>

MEMPHIS LIGHT, GAS AND WATER DIVISION  
 CAPITAL EXPENDITURES  
 FOR CALENDAR YEAR OF 2023

ALL DIVISIONS

PAGE 3

DESCRIPTION	THOUSANDS OF DOLLARS				REF. NO.
	ELECTRIC DIVISION	GAS DIVISION	WATER DIVISION	TOTAL	
TOTAL 2023 CAPITAL EXPENDITURES	231,923	24,281	42,532	298,736	3-1

# ELECTRIC DIVISION



MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
2021 THROUGH 2023

ELECTRIC DIVISION

PAGE E 4

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2021 ACTUAL	2022 BUDGET	2023 BUDGET	
<b>OPERATING REVENUE</b>				
Sales Revenue	1,288,843	1,326,016	1,411,972	4-1
Revenue Adjustment for Uncollectibles	(3,057)	(4,366)	(3,106)	4-2
Non-Sales Revenue	27,034	27,945	29,376	4-3
<b>OPERATING REVENUE</b>	<b>1,312,820</b>	<b>1,349,595</b>	<b>1,438,242</b>	
<b>OPERATING EXPENSE</b>				
Purchased Power	985,215	1,007,980	1,096,347	4-4
Transmission Expense	7,206	7,716	8,727	4-5
Distribution Expense	40,735	43,791	54,453	4-6
Customer Accounts Expense	14,492	17,067	18,280	4-7
Customer Service & Information Expense	1,734	2,183	2,266	4-8
Sales Expense	1,825	2,189	2,344	4-9
Administrative & General Expense	76,509	90,323	99,695	4-10
<b>OPERATING EXPENSE</b>	<b>1,127,716</b>	<b>1,171,249</b>	<b>1,282,112</b>	
<b>MAINTENANCE EXPENSE</b>				
Transmission Expense	5,625	6,135	3,443	4-11
Distribution Expense	43,101	55,796	59,944	4-12
Administrative & General Expense	3,807	4,946	4,849	4-13
<b>MAINTENANCE EXPENSE</b>	<b>52,533</b>	<b>66,877</b>	<b>68,236</b>	
<b>OTHER OPERATING EXPENSE</b>				
Depreciation Expense	57,227	58,967	59,647	4-14
Payment in Lieu of Taxes	45,396	46,372	45,273	4-15
F.I.C.A. Taxes	1,789	1,706	1,757	4-16
Amortization of Legacy Meters	1,199	1,192	1,192	4-17
Amortization of Software	1,315	1,537	1,598	4-18
<b>OTHER OPERATING EXPENSE</b>	<b>106,926</b>	<b>109,774</b>	<b>109,467</b>	
<b>TOTAL OPERATING EXPENSE</b>	<b>1,287,175</b>	<b>1,347,900</b>	<b>1,459,815</b>	
<b>INCOME</b>				
Operating Income	25,645	1,695	(21,573)	4-19
Other Income	41,244	41,600	42,608	4-20
Reduction of Plant Cost Recovered through CIAC	(18,218)	(28,199)	(37,371)	4-21
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>48,671</b>	<b>15,096</b>	<b>(16,336)</b>	
<b>DEBT EXPENSE</b>				
Interest Expense - Existing Long-Term Debt	12,786	12,531	11,896	4-22
Amortization of Debt Discount & Expense	(2,968)	(3,389)	(3,262)	4-23
<b>TOTAL DEBT EXPENSE</b>	<b>9,818</b>	<b>9,142</b>	<b>8,634</b>	
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>38,853</b>	<b>5,954</b>	<b>(24,970)</b>	
Contributions in Aid of Construction	18,218	28,199	37,371	4-24
<b>CHANGE IN NET POSITION*</b>	<b>57,071</b>	<b>34,153</b>	<b>12,401</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  
2022 THROUGH 2023**

**ELECTRIC DIVISION**

PAGE 4a

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b><u>OPERATING REVENUE</u></b>			
<b>Sales Revenue</b>	1,326,016	1,411,972	85,956
<b>Revenue Adjustment for Uncollectibles</b>	(4,366)	(3,106)	1,260
<b>Non-Sales Revenue</b>			
Forfeited Discounts	10,585	11,578	993
Miscellaneous Service Revenue	9,856	10,000	144
Other Operating Revenue	1,596	1,476	(120)
Rent from Gas/Water Property	5,908	6,322	414
<b>Total Non-Sales Revenue</b>	<b>27,945</b>	<b>29,376</b>	<b>1,431</b>
<b>OPERATING REVENUE</b>	<b>1,349,595</b>	<b>1,438,242</b>	<b>88,647</b>
<b><u>OPERATING EXPENSE</u></b>			
<b>Purchased Power</b>	<b>1,007,980</b>	<b>1,096,347</b>	<b>88,367</b>
<b>Transmission Expense</b>			
Load Dispatching	665	689	24
Miscellaneous Transmission Expenses	1,446	1,391	(55)
Operation Supervision and Engineering	5,203	6,225	1,022
Station Expenses	402	422	20
<b>Total Transmission Expense</b>	<b>7,716</b>	<b>8,727</b>	<b>1,011</b>
<b>Distribution Expense</b>			
Distribution Load Dispatching Expense	1,634	1,619	(15)
Meter Expenses	812	778	(34)
Miscellaneous Distribution Expenses <sup>(1)</sup>	24,196	33,377	9,181
Operation Supervision and Engineering	4,156	4,524	368
Overhead Distribution Line Expense	5,289	5,725	436
Services on Customers' Premises	5,132	5,414	282
Station Expenses	1,544	1,560	16
Street Lighting and Signal System Expenses	493	366	(127)
Underground Distribution Line Expenses	535	1,090	555
<b>Total Distribution Expense</b>	<b>43,791</b>	<b>54,453</b>	<b>10,662</b>
<b>Customer Accounts Expense</b>			
Customer Order, Records and Collection Expenses	16,020	17,267	1,247
Meter Reading Expenses	908	869	(39)
Supervision-Customer Accounting and Collection	139	144	5
<b>Total Customer Accounts Expense</b>	<b>17,067</b>	<b>18,280</b>	<b>1,213</b>
<b>Customer Service &amp; Information Expense</b>			
Customer Assistance Expenses	1,178	1,173	(5)
Informational and Instructional Advertising Expenses	163	163	-
Miscellaneous Customer Service & Informational Expense	485	499	14
Supervision-Customer Service and Information	357	431	74
<b>Total Customer Service &amp; Information Expense</b>	<b>2,183</b>	<b>2,266</b>	<b>83</b>
<b>Sales Expense</b>			
Miscellaneous Sales Expenses	2,189	2,344	155
<b>Total Sales Expense</b>	<b>2,189</b>	<b>2,344</b>	<b>155</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**  
**2022 THROUGH 2023**

**ELECTRIC DIVISION**

PAGE 4b

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b>OPERATING EXPENSE (Continued)</b>			
<b>Administrative &amp; General Expense</b>			
Administrative and General Salaries	18,703	16,665	(2,038)
Administration Expenses Transferred to Capital	(7,255)	(8,844)	(1,589)
Pension Expense	11,518	11,376	(142)
Other Active & Retiree Benefits	21,815	25,888	4,073
Other Post Employment Benefits Funding	2,423	787	(1,636)
Injuries and Damages	3,031	2,870	(161)
Miscellaneous General Expenses <sup>(2)</sup>	11,147	17,275	6,128
Office Supplies and Expenses	5,614	5,428	(186)
Outside Services Employed	15,456	20,482	5,026
Property Insurance	1,856	2,056	200
Rents-Miscellaneous	6,015	5,712	(303)
<b>Total Administrative &amp; General Expense</b>	<b>90,323</b>	<b>99,695</b>	<b>9,372</b>
<b>OPERATING EXPENSE</b>	<b>1,171,249</b>	<b>1,282,112</b>	<b>110,863</b>
<b>MAINTENANCE EXPENSE</b>			
<b>Transmission Expense</b>			
Maintenance of Overhead Transmission Lines	1	-	(1)
Maintenance of Station Equipment	1,431	1,364	(67)
Maintenance of Underground Transmission Lines	699	786	87
Maintenance of Structures and Improvements	124	46	(78)
Maintenance Supervision and Engineering	3,880	1,247	(2,633)
<b>Total Transmission Expense</b>	<b>6,135</b>	<b>3,443</b>	<b>(2,692)</b>
<b>Distribution Expense</b>			
Maintenance of Line Transformers	1,866	2,019	153
Maintenance of Meters	2,050	1,877	(173)
Maintenance of Miscellaneous Distribution Plant	539	730	191
Maintenance of Overhead Distribution Lines	29,632	33,084	3,452
Maintenance of Station Equipment	2,082	2,020	(62)
Maintenance of Street Lighting and Signal System	4,470	3,406	(1,064)
Maintenance of Underground Distribution Lines	12,087	13,562	1,475
Maintenance Supervision and Engineering	3,070	3,246	176
<b>Total Distribution Expense</b>	<b>55,796</b>	<b>59,944</b>	<b>4,148</b>
<b>Administrative &amp; General Expense</b>			
Maintenance of General Plant	4,691	4,623	(68)
Facilities Maintenance Expense	255	226	(29)
<b>Total Administrative &amp; General Expense</b>	<b>4,946</b>	<b>4,849</b>	<b>(97)</b>
<b>MAINTENANCE EXPENSE</b>	<b>66,877</b>	<b>68,236</b>	<b>1,359</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  
2022 THROUGH 2023**

**ELECTRIC DIVISION**

PAGE 4c

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b><u>OTHER OPERATING EXPENSE</u></b>			
Depreciation Expense	58,967	59,647	680
Payment in Lieu of Taxes	46,372	45,273	(1,099)
F.I.C.A. Taxes	1,706	1,757	51
Amortization of Legacy Meters	1,192	1,192	-
Amortization of Software	1,537	1,598	61
<b>OTHER OPERATING EXPENSE</b>	<b>109,774</b>	<b>109,467</b>	<b>(307)</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>1,347,900</b>	<b>1,459,815</b>	<b>111,915</b>
<b><u>INCOME</u></b>			
Operating Income	1,695	(21,573)	(23,268)
<b>Other Income</b>			
Revenues from Sinking & Other Funds - Interest Income	3,500	1,999	(1,501)
Medicare Part D Refund	294	311	17
Non-Operating Income - TVA Transmission Credit	36,000	38,298	2,298
Miscellaneous Non-Operating Income	1,806	2,000	194
<b>Total Other Income</b>	<b>41,600</b>	<b>42,608</b>	<b>1,008</b>
Reduction of Plant Cost Recovered through CIAC	(28,199)	(37,371)	(9,172)
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>15,096</b>	<b>(16,336)</b>	<b>(31,432)</b>
<b><u>DEBT EXPENSE</u></b>			
<b>Interest Expense - Long-Term Debt</b>			
Interest on Ltd - Series 2014	1,282	1,160	(122)
Interest on Ltd - Series 2016	1,497	1,419	(78)
Interest on Ltd - Series 2017	3,446	3,117	(329)
Interest on Ltd - Series 2020	6,306	6,200	(106)
<b>Total Interest Expense - Long-Term Debt</b>	<b>12,531</b>	<b>11,896</b>	<b>(635)</b>
<b>Amortization of Debt Discount &amp; Expense</b>			
Amortization of Debt Disc & Exp - Series 2014	(574)	(545)	29
Amortization of Debt Disc & Exp - Series 2016	(534)	(506)	28
Amortization of Debt Disc & Exp - Series 2017	(824)	(782)	42
Amortization of Debt Disc & Exp - Series 2020	(1,457)	(1,429)	28
<b>Total Amortization of Debt Discount &amp; Expense</b>	<b>(3,389)</b>	<b>(3,262)</b>	<b>127</b>
<b>TOTAL DEBT EXPENSE</b>	<b>9,142</b>	<b>8,634</b>	<b>(508)</b>
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>5,954</b>	<b>(24,970)</b>	<b>(30,924)</b>
Contributions in Aid of Construction	28,199	37,371	9,172
<b>CHANGE IN NET POSITION</b>	<b>34,153</b>	<b>12,401</b>	<b>(21,752)</b>

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SOURCE AND APPLICATION OF FUNDS  
2023 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	12,401	5-1
Non-Cash Charges to Income:		
Depreciation Charged to Operating Income	59,647	5-2
Depreciation Charged to Other Accounts	1,972	5-3
Amortization of Legacy Meters	1,192	5-4
Amortization of Software	1,598	5-5
	76,810	
<b>TOTAL FUNDS FROM OPERATIONS</b>	<b>76,810</b>	
Salvage	1,183	5-6
Financing: Debt Issuance	-	5-7
	77,993	
<b>TOTAL FUNDS AVAILABLE</b>	<b>77,993</b>	
<b><u>APPLICATION OF FUNDS:</u></b>		
Capital Expenditures	231,923	5-8
Costs of Removal and Other Charges to the Reserve for Depreciation	4,709	5-9
Retirement of Long-Term Debt	14,535	5-10
	251,167	
<b>TOTAL APPLICATION OF FUNDS</b>	<b>251,167</b>	
 <b>INCREASE (DECREASE) IN WORKING CAPITAL</b>	 <b>(173,174)</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES COMPARISON  
FOR CALENDAR YEAR OF 2023

ELECTRIC DIVISION

PAGE 6

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2021 Actual	2022 BUDGET	2023 BUDGET	
<b>SUBSTATION AND TRANSMISSION</b>				
ELEC - SUBSTATION	9,040	19,781	21,022	6-1
ELEC - SUBSTATION TRANSFORMERS REPLACEMENT	2,723	6,102	6,709	6-2
ELEC - SUBSTATION CIRCUIT BREAKERS REPLACEMENT	15,860	4,124	4,417	6-3
ELEC - TRANSMISSION LINES	3,771	8,190	12,027	6-4
CONTRIBUTION IN AID OF CONSTRUCTION - CIAC		(5,444)	(10,496)	6-5
<b>TOTAL - SUBSTATION AND TRANSMISSION</b>	<b>31,394</b>	<b>32,753</b>	<b>33,679</b>	
<b>DISTRIBUTION SYSTEM</b>				
ELEC - RESIDENTIAL SERVICE IN S/D	246	146	210	6-6
ELEC - RESIDENTIAL SERVICE NOT IN S/D	1,739	2,090	2,881	6-7
ELEC - RESIDENTIAL S/D	30	122	162	6-8
ELEC - APARTMENTS	1,119	1,709	1,290	6-9
ELEC - GENERAL POWER SERVICE	6,052	13,861	17,456	6-10
ELEC - GENERAL POWER S/D	144	278	124	6-11
ELEC - MOBILE HOME PARK	-	-	6	6-12
ELEC - TEMPORARY SERVICE	206	807	844	6-13
ELEC - MULTIPLE-UNIT GENERAL POWER	450	416	363	6-14
ELEC - RELOCATE AT CUSTOMER REQUEST	1,404	6,431	7,037	6-15
ELEC - STREET IMPROVEMENTS	882	14,556	11,910	6-16
ELEC - NEW CIRCUITS	623	7,600	12,025	6-17
ELEC - VOLTAGE CONVERSION	-	20	-	6-18
ELEC - LINE RECONSTRUCTION/REMOVE IDLE FACILITIES	1,830	4,250	5,250	6-19
ELEC - DEFECT CABLE/FEDER CABLE REPLACEMENT	3,336	11,800	10,800	6-20
ELEC - DISTRIBUTION POLES	3,854	3,000	4,000	6-21
ELEC - DISTRIBUTION AUTOMATION	7,698	31,000	31,000	6-22
ELEC - STREET LIGHTS INSTALL	1,699	11,900	51,580	6-23
ELEC - DEMOLITION	79	72	37	6-24
ELEC - STREET LIGHT MAINTENANCE	2,996	2,122	3,000	6-25
ELEC - PLANNED MAINTENANCE	5,454	9,869	10,263	6-26
ELEC - TREE TRIMMING	-	10	125	6-27
ELEC - OPERATIONS MAINTENANCE	207	-	-	6-28
ELEC - LEASED OUTDOOR LIGHTING	495	444	296	6-29
ELEC - STORM RESTORATION	2,338	-	-	6-30
ELEC - SHARED USE CONTRACT	-	500	500	6-31
ELEC - DUCT LINE LEASE	-	75	75	6-32
ELEC - EMERGENCY MAINTENANCE	5,984	6,076	6,198	6-33
JT - RESIDENTIAL SERVICE IN S/D	802	707	1,553	6-34
JT - RESIDENTIAL SERVICE NOT IN S/D	6	20	7	6-35
JT - RESIDENTIAL S/D	1,691	1,946	4,856	6-36
JT - APARTMENTS	-	-	35	6-37
PCI - CAPACITOR BANKS	-	250	-	6-38
PCI - DIST TRANSFORMERS	5,645	6,278	6,529	6-39
ELEC - METERS	177	2,366	1,922	6-40
CONTRIBUTION IN AID OF CONSTRUCTION - CIAC	(17,609)	(28,199)	(26,875)	6-41
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>39,577</b>	<b>112,522</b>	<b>165,459</b>	
<b>GENERAL PLANT</b>				
ELEC - BUILDINGS & STRUCTURES	254	5,006	13,002	6-42
ELEC - SECURITY AUTOMATION	3,053	2,958	2,213	6-43
ELEC - LAND PURCHASE	120	1,200	485	6-44
ELEC - FLEET CAPITAL POWER OPERATED EQUIPMENT	1,325	3,666	6,936	6-45
ELEC - TRANSPORTATION EQUIPMENT	1,241	4,737	5,766	6-46
ELEC - TOOLS & EQUIPMENT	-	-	-	6-47
ELEC - LAB & TEST	335	862	386	6-48
ELEC - COMMUNICATION EQUIPMENT	49	91	146	6-49
ELEC - COMMUNICATION TOWERS	-	8,118	4,500	6-50
ELEC - TELECOMMUNICATION NETWORK	1,843	4,478	22,509	6-51
ELEC - UTILITY MONITORING	82	1,120	11,135	6-52
ELEC - CIS DEVELOPMENT	467	7,675	4,500	6-53
ELEC - BUSINESS CONTINUITY	1,064	555	1,200	6-54
ELEC - DATA PROCESSING EQUIPMENT	-	5,433	17,788	6-55
ELEC - IS/IT PROJECTS	27	-	-	6-56
ELEC - CONTINGENCY FUND	-	200	200	6-57
<b>TOTAL - GENERAL PLANT</b>	<b>9,860</b>	<b>46,099</b>	<b>90,766</b>	
<b>TOTAL - ELECTRIC DIVISION CATEGORIES</b>	<b>80,831</b>	<b>191,374</b>	<b>289,904</b>	
Delayed Cost Allocations	(9,013)	(35,592)	(57,981)	6-58
<b>TOTAL - ELECTRIC DIVISION</b>	<b>71,818</b>	<b>155,782</b>	<b>231,923</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**ELECTRIC DIVISION**

PAGE 7

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>SUBSTATION &amp; TRANSMISSION MAJOR PROJECTS</u></b>		
<b><u>SUBSTATION</u></b>		
Install Substation 83 161/23kV Facilities	11,840,325	7-1
Replace RTU's various locations	1,885,775	7-2
Replace relays various locations	1,000,000	7-3
Install Substation 76 third 115/12 kV transformer	1,000,000	7-4
Sub #44 -- Install Definite Purpose Capacitor Bank Breakers 44361 & 44363 Bank	851,801	7-5
Replace capacitor banks various locations	813,337	7-6
AC Service for Breaker Storage Yard @ Substation 33	694,658	7-7
Replace batteries various locations	520,000	7-8
Permanent Storage Solution for Mobile Substation @ Substation 33	510,085	7-9
Install 12 kV Circuit Breaker 47221 @ Substation 47 (Planning Request)	500,000	7-10
Sub #27 -- Install CapSwitchers on Cap Banks 7663 and 7665	397,311	7-11
Install 23 kV Circuit Breaker 5311 @ Substation 5 (Liberty Park PDO)	250,000	7-12
Install SATEC Metering at Various Substations (Distribution Automation)	220,000	7-13
Substation 4 OH/UG Conversion Ckts 2395 & 2397 (City of Memphis)	188,723	7-14
Install Transmission Metering Equipment for Transmission Planning Monitoring	150,000	7-15
Contingency Replace Switches	100,000	7-16
Other Miscellaneous Replace/Install	50,000	7-17
Seismic Retrofit of Non-Structural Substation Components	50,000	7-18
<b>TOTAL SUBSTATION IMPROVEMENTS</b>	<b>21,022,015</b>	
<b><u>SUBSTATION TRANSFORMERS</u></b>		
Replace 23/12 kV transformer banks 5335 & 5337 @ Substation 5	2,208,918	7-19
Replace 115/12 kV transformer banks 6555, 6557 & 6559 @ Substation 6	1,500,000	7-20
Contingency Failed Transformers/Procure Spares	3,000,000	7-21
<b>TOTAL SUBSTATION TRANSFORMERS</b>	<b>6,708,918</b>	
<b><u>SUBSTATION CIRCUIT BREAKERS</u></b>		
Replace 161 kV Breakers 38625, 38627 & 38659 @ Substation 38 (Aging Infrastructure)	1,139,208	7-22
Contingency Replace Breakers	500,000	7-23
Replace 12 kV Breaker 6609 @ Substation 26	466,225	7-24
Replace 12 kV Breaker 41259 @ Substation 41 (Aging Infrastructure)	317,800	7-25
Replace 23 kV Breaker 4301 @ Substation 4	301,045	7-26
Replace 12 kV Breaker 6259 @ Substation 6	284,795	7-27
Replace 12 kV Breaker 6257 @ Substation 6	284,795	7-28
Replace 12 kV Breaker 38257 @ Substation 38	251,393	7-29
Replace 23 kV Breaker 4361 @ Substation 4 (Aging Infrastructure)	250,000	7-30
Replace 23 kV Breaker 1837 @ Substation 11	210,786	7-31
Replace 23 kV Breaker 1835 @ Substation 11	210,786	7-32
Replace 23 kV Breaker 45349 @ Substation 45	200,444	7-33
<b>TOTAL SUBSTATION CIRCUIT BREAKERS</b>	<b>4,417,277</b>	
<b>TOTAL SUBSTATION</b>	<b>32,148,210</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**ELECTRIC DIVISION**

**PAGE 8**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>SUBSTATION/TRANSMISSION PROJECTS</u></b>		
Structure #1613 Bank Stabilization (USACE Section 14 Funding)	1,750,000	8-1
Misc. projects (OPGW, structure replacements, etc.)	500,000	8-2
Sub 83 Cut-in	500,000	8-3
OPGW 42-23	210,000	8-4
OPGW 11-35	200,000	8-5
Structure #1871 Bank Stabilization (USACE Section 14 Funding)	200,000	8-6
UAV Contract #12134	60,000	8-7
LIDAR Survey Impacts (NERC)	50,000	8-8
<b>TOTAL SUBSTATION/TRANSMISSION PROJECTS</b>	<b>3,470,000</b>	
<b><u>TRANSMISSION - REIMBURSABLE</u></b>		
TVA CC Plant - Transmission Improvements	5,682,108	8-9
TDOT Lamar & Shelby Drive	2,875,000	8-10
<b>TOTAL TRANSMISSION REIMBURSABLE</b>	<b>8,557,108</b>	
<b>TOTAL TRANSMISSION LINES</b>	<b>12,027,108</b>	
<b>CONTRIBUTION IN AID OF CONSTRUCTION - CIAC</b>	<b>(10,495,831)</b>	8-11
<b>TOTAL - SUBSTATION AND TRANSMISSION</b>	<b>33,679,487</b>	
<b><u>DISTRIBUTION SYS. - MAJOR PROJECTS</u></b>		
Substation 83	3,500,000	8-12
Substation 83 Cabling (6 ckts)	2,000,000	8-13
Sub 84 Ckt Ties	1,500,000	8-14
New Ckt Sub 84 North	1,500,000	8-15
Sub 83 Ckt Ties	1,250,000	8-16
Other 2020-24 Projects	1,000,000	8-17
Kellogg's Alternate CKT Upgrade	500,000	8-18
Sub. 84, Germantown Rd. Steel Pole Line	425,000	8-19
Schilling Farms Circuit Tie(s)	300,000	8-20
Ckt Ties in Sub 15/84/68 Area	50,000	8-21
<b>TOTAL MAJOR NEW CIRCUIT PROJECTS</b>	<b>12,025,000</b>	
<b><u>MISC. PROJECTS - REIMBURSABLE</u></b>		
Pinch District Improvements	5,000,000	8-22
Other Relocate at Customer Request Projects	2,037,456	8-23
<b>TOTAL MISC. PROJECTS - REIMBURSABLE</b>	<b>7,037,456</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**ELECTRIC DIVISION**

**PAGE 9**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>STREET IMPROVEMENT PROJECTS</u></b>		
SR-4/US-78/Lamar, south of SR-175/Shelby Dr. to Raines/Perkins Interchange Phase 2	4,721,015	9-1
SR-1/US-70/Summer Ave, from Macon Rd To Elmore Rd	2,384,000	9-2
Elvis Presley Blvd. North and Middle Section	2,000,000	9-3
Other Projections 2023-2027	1,000,000	9-4
Germantown Rd at Wolf River Blvd (GT 16/01)	400,000	9-5
Holmes Road, Malone to US-78/Lamar (CP 04/38)	375,000	9-6
SR-14, from Kerrville Rosemark to Tipton County Line	300,000	9-7
Malone, Holmes to Shelby Drive	200,000	9-8
LL 09/02 - New Canada Rd (Re-Alignment N of I-40 to US-70)	100,000	9-9
Airways @ Ketchum (SP 11/07)	150,000	9-10
Navy Road, Phase 2, Church to Veterans Pkwy	40,000	9-11
Washington Street Improvements, Main to Mt. Pleasant	30,000	9-12
Bartlett Road @ Ivanhoe - Signal	25,000	9-13
Corsica at Pine Bark Drainage	25,000	9-14
Easthill Subdivision - Drainage	25,000	9-15
Mickey to Millbranch - Drainage (MSQ2)	25,000	9-16
Prosperity Subdivision - Drainage	25,000	9-17
S. Main St. Extd. - Drainage	25,000	9-18
Dexter Lane north of Rainsong Cove Drainage	20,000	9-19
Germantown Rd at Legacy Drive - Drain RCP repair	20,000	9-20
Lillian Drive - Drainage (MSQ2)	10,000	9-21
Tonto Road - Drainage Project	10,000	9-22
	<b>11,910,015</b>	
<b>TOTAL DISTRIBUTION SYS. - MAJOR PROJECTS</b>	<b>30,972,471</b>	
<b><u>GENERAL PLANT</u></b>		
<b><u>PURCHASE OF LAND</u></b>	<b>484,930</b>	<b>9-23</b>
<b><u>BUILDINGS &amp; STRUCTURES</u></b>		
<b><u>SUBSTATIONS</u></b>		
Replace Roofs - Various Substations	126,200	9-24
<b><u>ELECTRIC &amp; SYSTEMS OPERATIONS</u></b>		
New Storeroom Building	1,500,000	9-25
Radio Tower Bldg: Replace 874 sq ft roof	22,000	9-26

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**ELECTRIC DIVISION**

**PAGE 10**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>GENERAL PLANT (Continued)</u></b>		
<b><u>NETTERS BUSINESS OPERATIONS CENTER</u></b>		
UPS Battery Replacement	54,000	10-1
<b><u>NEW BUILDINGS</u></b>		
Building Upgrades	7,000,000	10-2
EV Charging Stations	2,300,000	10-3
Expansion Property Site Development	1,000,000	10-4
Implement Distribution Automation Relay Testing Lab/Training Facility	1,000,000	10-5
<b>TOTAL BUILDINGS &amp; STRUCTURES</b>	<b>13,002,200</b>	
<b>ELEC - SECURITY AUTOMATION</b>	<b>2,212,805</b>	10-6
<b>ELEC - FLEET CAPITAL POWER OPERATED EQUIPMENT</b>	<b>6,936,280</b>	10-7
<b>ELEC - TRANSPORTATION EQUIPMENT</b>	<b>5,765,766</b>	10-8
<b>ELEC - COMMUNICATION EQUIPMENT</b>	<b>145,800</b>	10-9
<b>LAB &amp; TEST</b>	<b>386,100</b>	10-10
<b><u>COMMUNICATION TOWERS</u></b>		
Microwave/Mobile Radio	4,500,000	10-11
<b>TOTAL COMMUNICATION TOWERS</b>	<b>4,500,000</b>	
<b><u>TELECOMMUNICATION NETWORK</u></b>		
Distribution Automation Communication Infrastructure	20,000,000	10-12
DA Network Improvements	1,000,000	10-13
Fiber optic multiplexers	736,000	10-14
Fiber optic cable and equipment	492,000	10-15
Telecommunication Systems Growth	216,000	10-16
TDOT Summer Avenue Job	50,000	10-17
Voice Network	15,000	10-18
<b>TOTAL TELECOMMUNICATIONS NETWORK</b>	<b>22,509,000</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**ELECTRIC DIVISION**

**PAGE 11**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>GENERAL PLANT (Continued)</u></b>		
<b><u>UTILITY MONITORING &amp; CONTROL SYSTEMS</u></b>		
Systems Backup Control & Communication Plan (CO)	11,135,000	11-1
<b>TOTAL UTILITY MONITORING &amp; CONTROL SYS.</b>	<b>11,135,000</b>	
<b><u>CUSTOMER INFO SYSTEM (CIS) DEVELOPMENT</u></b>		
BillGen Replacement (Carryover)	2,500,000	11-2
IVR and Call Center Expansion Project	1,600,000	11-3
Electric Meter Test Board replacement	400,000	11-4
<b>TOTAL CUSTOMER INFO. SYS. DEVELOPMENT</b>	<b>4,500,000</b>	
<b><u>BUSINESS CONTINUITY</u></b>		
Business Continuity / Disaster Recovery Site	600,000	11-5
Data Center Enhancements Connectivity Improvements	500,000	11-6
User Requested Projects	100,000	11-7
<b>TOTAL BUSINESS CONTINUITY</b>	<b>1,200,000</b>	
<b><u>PURCHASE OF DATA PROCESSING EQUIPMENT</u></b>		
HPE Storage Area Network (SAN) Replacement/Expansion	8,500,000	11-8
Field Use Laptop Replacements	2,200,000	11-9
AI Project (carryover)	1,500,000	11-10
Storage Area Network for Backup Systems	988,312	11-11
DNS/DHCP System Replacement	797,898	11-12
Annual Network Upgrades- New	650,000	11-13
Annual New\Replacement Servers New	600,000	11-14
Project Portfolio Management Software (Carryover)	600,000	11-15
Work Center Wireless (outdoor) - Carryover	600,000	11-16
Network Access Control for End Points (Carryover)	571,000	11-17
Network Security Upgrades and Enhancements	550,000	11-18
Corporate Wireless Upgrade and Enhancements	200,000	11-19
PC Equipment	30,672	11-20
<b>TOTAL PURCHASE OF DATA PROCESSING EQUIPMENT</b>	<b>17,787,882</b>	
<b><u>CONTINGENCY FUNDS - GENERAL PLANT</u></b>	<b>200,000</b>	11-21
<b>TOTAL GENERAL PLANT</b>	<b>90,765,763</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL CARRYOVER SUMMARY\*  
FOR CALENDAR YEAR OF 2023

ELECTRIC DIVISION

PAGE 12

<u>CAPITAL CARRYOVER CATEGORY</u>	<u>CARRYOVER AMOUNT</u>
Substations, Transmission & Distribution System	8,855,788
Power Operated and Transportation Equipment	6,373,418
Telecommunication Network & Communication Towers	4,500,000
Buildings & Structures	4,250,000
Purchase of Data Processing Equipment	4,186,000
CIS Info Systems Development	2,806,327
Utility Monitoring	885,000
Property	134,930
<b>TOTAL CAPITAL CARRYOVER SUMMARY</b>	<b><u>31,991,463</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 2023 Budget.

# **GAS DIVISION**



MEMPHIS LIGHT, GAS AND WATER DIVISION  
INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON  
2021 THROUGH 2023

GAS DIVISION

PAGE G 12

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2021 ACTUAL	2022 BUDGET	2023 BUDGET	
<b>OPERATING REVENUE</b>				
Sales Revenue	266,218	237,254	285,096	12-1
Revenue Adjustment for Uncollectibles	(744)	(1,012)	(799)	12-2
Non-Sales Revenue	29,999	26,817	57,184	12-3
<b>OPERATING REVENUE</b>	<b>295,473</b>	<b>263,059</b>	<b>341,481</b>	
<b>OPERATING EXPENSE</b>				
Production - LNG Plant	1,411	1,430	1,566	12-4
Purchased Gas	146,680	120,035	166,335	12-5
Compressed Natural Gas (CNG)	260	12	132	12-6
Liquefied Natural Gas (LNG)	4,729	1,056	2,268	12-7
Industrial Gas	-	-	27,984	12-8
Distribution Expense	24,808	28,918	30,929	12-9
Customer Accounts Expense	9,838	11,553	12,245	12-10
Customer Service & Information Expense	1,663	1,845	1,892	12-11
Sales Expense	409	418	430	12-12
Administrative & General Expense	42,697	43,137	47,472	12-13
<b>OPERATING EXPENSE</b>	<b>232,495</b>	<b>208,404</b>	<b>291,253</b>	
<b>MAINTENANCE EXPENSE</b>				
Production Expense	382	387	819	12-14
Distribution Expense	7,177	7,848	7,776	12-15
Administrative & General Expense	1,084	1,586	1,588	12-16
<b>MAINTENANCE EXPENSE</b>	<b>8,643</b>	<b>9,821</b>	<b>10,183</b>	
<b>OTHER OPERATING EXPENSE</b>				
Depreciation Expense	18,011	18,642	18,591	12-17
Payment in Lieu of Taxes	19,052	20,338	19,298	12-18
F.I.C.A. Taxes	686	652	672	12-19
Amortization of Leasehold Improvements	-	-	-	12-20
Amortization of Legacy Meters	1,428	1,423	1,423	12-21
Amortization of Software	3,812	3,940	3,915	12-22
<b>OTHER OPERATING EXPENSE</b>	<b>42,989</b>	<b>44,995</b>	<b>43,899</b>	
<b>TOTAL OPERATING EXPENSE</b>	<b>284,127</b>	<b>263,220</b>	<b>345,335</b>	
<b>INCOME</b>				
Operating Income	11,346	(161)	(3,854)	12-23
Other Income	59	1,045	(32)	12-24
Reduction of Plant Cost Recovered through CIAC	(2,025)	(5,005)	(18,157)	12-25
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>9,380</b>	<b>(4,121)</b>	<b>(22,043)</b>	
<b>DEBT EXPENSE</b>				
Interest Expense - Long-Term Debt	5,744	5,571	5,377	12-26
Amortization of Debt Discount & Expense	(1,699)	(1,684)	(1,579)	12-27
<b>TOTAL DEBT EXPENSE</b>	<b>4,045</b>	<b>3,887</b>	<b>3,798</b>	
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>5,335</b>	<b>(8,008)</b>	<b>(25,841)</b>	
Contributions in Aid of Construction	2,025	5,005	18,157	12-28
<b>CHANGE IN NET POSITION*</b>	<b>7,360</b>	<b>(3,003)</b>	<b>(7,684)</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**  
**2022 THROUGH 2023**

GAS DIVISION

PAGE 12a

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b>OPERATING REVENUE</b>			
<b>Sales Revenue</b>	237,254	285,096	47,842
<b>Revenue Adjustment for Uncollectibles</b>	(1,012)	(799)	213
<b>Non-Sales Revenue</b>			
Forfeited Discounts	2,800	3,136	336
Miscellaneous Service Revenue	2,016	2,100	84
Other Operating Revenue	612	564	(48)
Compressed Natural Gas (CNG)	36	288	252
Liquefied Natural Gas (LNG)	2,568	4,284	1,716
Industrial Gas	-	28,999	28,999
Rent from Electric/Water Property	8,387	7,228	(1,159)
Transported Gas	10,398	10,585	187
<b>Total Non-Sales Revenue</b>	<b>26,817</b>	<b>57,184</b>	<b>30,367</b>
<b>OPERATING REVENUE</b>	<b>263,059</b>	<b>341,481</b>	<b>78,422</b>
<b>OPERATING EXPENSE</b>			
<b>Purchased Gas</b>	<b>120,035</b>	<b>166,335</b>	<b>46,300</b>
Compressed Natural Gas (CNG)	12	132	120
Liquified Natural Gas (LNG)	1,056	2,268	1,212
Industrial Gas	-	27,984	27,984
<b>Production Expense</b>			
Operation Labor and Expenses	1,287	1,422	135
Operation Supervision and Engineering	143	144	1
<b>Total Production Expense</b>	<b>1,430</b>	<b>1,566</b>	<b>136</b>
<b>Distribution Expense</b>			
Customer Installation Expenses	5,215	5,392	177
Distribution Load Dispatching Expense	790	831	41
Mains and Services	3,985	3,543	(442)
Measuring and Regulating Expenses	79	76	(3)
Meter and House Regulator Expenses	3,493	3,320	(173)
Miscellaneous Distribution Expenses <sup>(1)</sup>	11,615	13,366	1,751
Rents	5	15	10
Operation Supervision and Engineering	3,736	4,386	650
<b>Total Distribution Expense</b>	<b>28,918</b>	<b>30,929</b>	<b>2,011</b>
<b>Customer Accounts Expense</b>			
Customer Order, Records and Collection Expenses	10,111	10,856	745
Meter Reading Expenses	1,314	1,261	(53)
Supervision-Customer Accounting and Collection	128	128	-
<b>Total Customer Accounts Expense</b>	<b>11,553</b>	<b>12,245</b>	<b>692</b>
<b>Customer Service &amp; Information Expense</b>			
Customer Assistance Expenses	811	808	(3)
Informational and Instructional Advertising Expenses	54	54	-
Miscellaneous Customer Service & Informational Expenses	686	714	28
Supervision-Customer Service and Information	294	316	22
<b>Total Customer Service &amp; Information Expense</b>	<b>1,845</b>	<b>1,892</b>	<b>47</b>
<b>Total Sales Expense</b>	<b>418</b>	<b>430</b>	<b>12</b>
Demonstrating and Selling Expenses	-	-	-
Miscellaneous Sales Expenses	418	430	12

<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  
2022 THROUGH 2023**

GAS DIVISION

PAGE 12b

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b><u>OPERATING EXPENSE (Continued)</u></b>			
<b>Administrative &amp; General Expense</b>			
Administrative and General Salaries	7,548	6,754	(794)
Administration Expenses Transferred to Capital	(1,314)	(1,425)	(111)
Pension Expense	4,816	4,757	(59)
Other Active & Retiree Benefits	11,981	14,590	2,609
Other Post Employment Benefits Funding	1,013	329	(684)
Injuries and Damages	1,847	1,454	(393)
Miscellaneous General Expenses <sup>(2)</sup>	4,661	6,826	2,165
Office Supplies and Expenses	2,328	2,185	(143)
Outside Services Employed	5,898	7,294	1,396
Property Insurance	945	1,033	88
Rents-Miscellaneous	3,414	3,675	261
<b>Total Administrative &amp; General Expense</b>	<b>43,137</b>	<b>47,472</b>	<b>4,335</b>
<b>OPERATING EXPENSE</b>	<b>208,404</b>	<b>291,253</b>	<b>82,849</b>
<b><u>MAINTENANCE EXPENSE</u></b>			
<b>Production Expense</b>			
Maintenance of Other Equipment	90	438	348
Maintenance of Structures and Improvements	73	156	83
Maintenance Supervision and Engineering	224	225	1
<b>Total Production Expense</b>	<b>387</b>	<b>819</b>	<b>432</b>
<b>Distribution Expense</b>			
Maintenance of Mains	4,809	4,656	(153)
Maintenance of Meters	300	293	(7)
Maintenance of Services	1,146	1,203	57
Maintenance Supervision and Engineering	88	94	6
Measuring and Regulating Equipment Expenses	1,505	1,530	25
<b>Total Distribution Expense</b>	<b>7,848</b>	<b>7,776</b>	<b>(72)</b>
<b>Administrative &amp; General Expense</b>			
Maintenance of General Plant	1,473	1,455	(18)
Facilities Maintenance Expense	113	133	20
<b>Total Administrative &amp; General Expense</b>	<b>1,586</b>	<b>1,588</b>	<b>2</b>
<b>MAINTENANCE EXPENSE</b>	<b>9,821</b>	<b>10,183</b>	<b>362</b>
<b><u>OTHER OPERATING EXPENSE</u></b>			
Depreciation Expense	18,642	18,591	(51)
Payment in Lieu of Taxes	20,338	19,298	(1,040)
F.I.C.A. Taxes	652	672	20
Amortization of Legacy Meters	1,423	1,423	-
Amortization of Software	3,940	3,915	(25)
<b>OTHER OPERATING EXPENSE</b>	<b>44,995</b>	<b>43,899</b>	<b>(1,096)</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>263,220</b>	<b>345,335</b>	<b>82,115</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**  
**2022 THROUGH 2023**

GAS DIVISION

PAGE 12c

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b>INCOME</b>			
<b>Operating Income</b>	(161)	(3,854)	(3,693)
<b>Other Income</b>			
Expenses of Merchandising, Jobbing & Contracts	(2,588)	(2,823)	(235)
Revenues from Merchandising, Jobbing & Contracts	1,304	1,381	77
Revenues from Sinking & Other Funds-Interest Income	2,000	1,000	(1,000)
Medicare Part D Refund	122	110	(12)
Miscellaneous Non-Operating Income	207	300	93
<b>Total Other Income</b>	1,045	(32)	(1,077)
<b>Reduction of Plant Cost Recovered through CIAC</b>	(5,005)	(18,157)	(13,152)
<b>NET INCOME BEFORE DEBT EXPENSE</b>	(4,121)	(22,043)	(17,922)
<b>DEBT EXPENSE</b>			
<b>Interest Expense - Long-Term Debt</b>			
Interest on Ltd - Series 2016	1,497	1,419	(78)
Interest on Ltd - Series 2017	1,597	1,525	(72)
Interest on Ltd - Series 2020	2,477	2,433	(44)
<b>Total Interest Expense - Long-Term Debt</b>	5,571	5,377	(194)
<b>Amortization of Debt Discount &amp; Expense</b>			
Amortization of Debt Disc & Exp - Series 2016	(579)	(507)	72
Amortization of Debt Disc & Exp - Series 2017	(465)	(443)	22
Amortization of Debt Disc & Exp - Series 2020	(640)	(629)	11
<b>Total Amortization of Debt Discount &amp; Expense</b>	(1,684)	(1,579)	105
<b>TOTAL DEBT EXPENSE</b>	3,887	3,798	(89)
<b>NET INCOME AFTER DEBT EXPENSE</b>	(8,008)	(25,841)	(17,833)
Contributions in Aid of Construction	5,005	18,157	13,152
<b>CHANGE IN NET POSITION</b>	(3,003)	(7,684)	(4,681)

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SOURCE AND APPLICATION OF FUNDS  
2023 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	(7,684)	13-1
<b>Non-Cash Charges to Income:</b>		
Depreciation Charged to Operating Income	18,591	13-2
Depreciation Charged to Other Accounts	1,941	13-3
Amortization of Legacy Meters	1,423	13-4
Amortization of Software	3,915	13-5
<b>TOTAL FUNDS FROM OPERATIONS</b>	<b>18,186</b>	
Salvage	286	13-6
Financing: Debt Issuance	-	13-7
<b>TOTAL FUNDS AVAILABLE</b>	<b>18,472</b>	
<b><u>APPLICATION OF FUNDS:</u></b>		
Capital Expenditures	24,281	13-8
Costs of Removal and Other Charges to the Reserve for Depreciation	184	13-9
Retirement of Long Term Debt	4,335	13-10
<b>TOTAL APPLICATION OF FUNDS</b>	<b>28,800</b>	
<b>INCREASE (DECREASE) IN WORKING CAPITAL</b>	<b>(10,328)</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES COMPARISON  
FOR CALENDAR YEAR OF 2023

GAS DIVISION

PAGE 14

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2021 Actual	2022 BUDGET	2023 BUDGET	
<b>PRODUCTION SYSTEM</b>				
GAS - LNG PROCESSING FACILITIES	(179)	200	894	
GAS - CNG STATIONS	-	-	-	
<b>TOTAL PRODUCTION SYSTEM</b>	<b>(179)</b>	<b>200</b>	<b>894</b>	14-1
<b>DISTRIBUTION SYSTEM</b>				
GAS - APARTMENTS	17	-	-	14-2
GAS - RESIDENTIAL SERVICE IN S/D	-	12	9	14-3
GAS - RESIDENTIAL SERVICE NOT IN S/D	486	959	1,792	14-4
GAS - RESIDENTIAL S/D	-	-	7	14-5
GAS - LAND PURCHASE	-	225	225	14-6
GAS - GENERAL POWER SERVICE	737	6,413	3,769	14-7
GAS - GENERAL POWER S/D	162	254	7	14-8
GAS - MULTIPLE-UNIT GENERAL POWER	40	52	120	14-9
GAS - RELOCATE AT CUSTOMER REQUEST	168	341	834	14-10
GAS - PURCHASE OF METERS	-	2,745	3,446	14-11
GAS - STREET IMPROVEMENTS	317	5,261	3,714	14-12
GAS - NEW GAS MAIN	678	250	250	14-13
GAS - GAS MAIN/SERVICE REPL (D.O.T.)	4,997	5,535	6,156	14-14
GAS - TRANSMISSION PIPELINES AND FACILITIES	1,044	2,400	600	14-15
GAS - REGULATOR STATIONS	736	1,000	826	14-16
GAS - GATE STATIONS	3	1,500	930	14-17
GAS - PLANNED MAINTENANCE	2,562	4,994	5,094	14-18
JT - RESIDENTIAL SERVICE IN S/D	-	413	646	14-19
JT - RESIDENTIAL SERVICE NOT IN S/D	3	16	1	14-20
JT - RESIDENTIAL S/D	672	714	1,786	14-21
JT - APARTMENTS	-	-	8	14-22
GAS - EMERGENCY MAINTENANCE	715	1,578	1,610	14-23
GAS - DEMOLITION	63	-	-	14-24
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC)	(2,479)	(5,005)	(18,157)	14-25
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>10,921</b>	<b>29,657</b>	<b>13,673</b>	
<b>GENERAL PLANT</b>				
GAS - BUILDINGS & STRUCTURES	1,480	6,595	5,817	14-26
GAS - SECURITY AUTOMATION	-	941	173	14-27
GAS - FURNITURE & FIXTURES	-	238	255	14-28
GAS - AUDIOVISUAL	-	-	32	14-29
GAS - IS/IT PROJECTS	-	438	280	14-30
GAS - FLEET CAPITAL COMMON POWER OPERATED EQUIP	388	1,380	2,109	14-31
GAS - FLEET CAPITAL COMON TRANSPORTATION EQUIP	557	4,201	3,030	14-32
GAS - FLEET GAS POWER OPERATED EQUIPMENT	276	1,646	1,279	14-33
GAS - FLEET GAS TRANSPORTATION EQUIPMENT	471	2,478	2,208	14-34
GAS - AUTOMATED FUELING STRUCTURE	-	-	60	14-35
GAS - TOOLS & EQUIPMENT	-	11	146	14-36
GAS - COMMON TOOLS & EQUIPMENT	27	133	207	14-37
GAS - CONTINGENCY FUNDS	-	200	200	14-38
<b>TOTAL - GENERAL PLANT</b>	<b>3,199</b>	<b>18,261</b>	<b>15,796</b>	
<b>TOTAL - GAS DIVISION CATEGORIES</b>	<b>13,941</b>	<b>48,118</b>	<b>30,363</b>	
Delayed Cost Allocations	510	(8,359)	(6,082)	14-39
<b>TOTAL - GAS DIVISION</b>	<b>14,451</b>	<b>39,759</b>	<b>24,281</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**GAS DIVISION**

**PAGE 15**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>PRODUCTION SYSTEM</u></b>		
Gas - LNG Processing Facilities	894,000	15-1
<b>TOTAL GAS - PRODUCTION SYSTEM</b>	<b>894,000</b>	
<b><u>DISTRIBUTION SYSTEM - MAJOR PROJECTS</u></b>		
<b><u>STREET IMPROVEMENTS</u></b>		
Holmes Rd, Malone Rd To Lamar Ave	1,200,000	15-2
SP 97/09 TDOT Summary Avenue	936,000	15-3
LL 09/02 Canada Rd, Re-Alignment, WO288164	300,000	15-4
ML 21/04, Navy Rd, Phase2, Church - Veterans Pkwy, Preliminary Plans	250,000	15-5
CP 16/16 Elvis Presley Middle Seg, WO288159	130,000	15-6
Airways @ Ketchum, W8Q08492, not released	125,000	15-7
CP 05/15, Malone Rd, Holmes to Shelby, WO672512	124,000	15-8
GT 16/01, Germantown Rd at Brierbrook, W8Q43005	124,000	15-9
CP 16/07, S Germantown Rd, N of Nonconnah TI, WO662236, released	85,000	15-10
CP 18/09 Bethel Grove Sewer Ext	75,000	15-11
SP 18/03, Danny Thomas Corridor Signal Improvements, WO600982	60,000	15-12
CP 20/07 Mysen @ Karstad, WO666987	50,000	15-13
BT 22/02, Easthill Subdivision - drainage, in design	50,000	15-14
CV 22/02, S Main Ext - drainage, in design	50,000	15-15
CP 20/06, Laudeen at Randall - drainage, Preliminary Plans	35,000	15-16
CP 20/03, Tchulahoma at Blue Bonnet, Preliminary Plans	30,000	15-17
AP 22/01 Chester St Bridge, Preliminary Plans	30,000	15-18
CV 21/03, Washington St, Main - Mt. Pleasant, Preliminary Plans	20,000	15-19
BT 22/01, Prosperity Subdivision - drainage, Preliminary Plans	15,000	15-20
CP 20/02, Hanna/Naylor - drainage, Preliminary Plans	10,000	15-21
CP 20/05, Mickey to Millbranch - drainage, Preliminary Plans	10,000	15-22
CV 22/09, Lillian Dr - drainage, Preliminary Plans	5,000	15-23
<b>TOTAL GAS - STREET IMPROVEMENTS</b>	<b>3,714,000</b>	
<b><u>NEW GAS MAIN</u></b>		
System Improvement Projections	250,000	15-24
<b>TOTAL GAS - NEW GAS MAIN</b>	<b>250,000</b>	
<b><u>GAS MAIN/SERVICE REPL (D.O.T.)</u></b>		
Steel Tap Replacement	5,698,000	15-25
Distribution Integrity Management Program (DIMP)	250,000	15-26
Unplanned Distribution Work	175,000	15-27
Corrosion Control	33,000	15-28
<b>TOTAL GAS -GAS MAIN/SERVICE REPL (D.O.T)</b>	<b>6,156,000</b>	
<b><u>TRANSMISSION PIPELINES AND FACILITIES</u></b>		
18" XXHP Pipeline Replacement @ Covington Pike & LNRR	430,000	15-29
Transmission Integrity Management Program (TIMP)	170,000	15-30
<b>TOTAL TRANSMISSION PIPELINES AND FACILITIES</b>	<b>600,000</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**GAS DIVISION**

**PAGE 16**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>DISTRIBUTION SYSTEM - MAJOR PROJECTS (Continued)</u></b>		
<b><u>REGULATOR STATIONS</u></b>		
Regulator Station Replacement	825,800	16-1
<b>TOTAL GAS- REGULATOR STATION REPLACEMENT</b>	<b>825,800</b>	
<b><u>GATE STATION</u></b>		
Gate Station Work	930,000	16-2
<b>TOTAL GAS- GATE STATIONS</b>	<b>930,000</b>	
<b>TOTAL DISTRIBUTION SYS. - MAJOR PROJECTS</b>	<b>12,475,800</b>	
<b><u>GENERAL PLANT</u></b>		
<b><u>BUILDINGS &amp; STRUCTURES</u></b>		
<b>SOUTH SERVICE CENTER</b>		
Replace 6 Garage Overhead Doors	89,000	16-3
<b>TOTAL SOUTH SERVICE CENTER</b>	<b>89,000</b>	
<b>NORTH SERVICE CENTER</b>		
Building #8 (Re-cover over Stores 160,668 square foot roof)	3,200,000	16-4
Building #8 (Re-cover over office 24,000 square foot roof)	494,000	16-5
Concrete Pad for Transformers	420,000	16-6
Asphalt Paving & Concrete Slabs/ Drives - Phase 3	400,000	16-7
Replace 8 Garage Overhead Doors	119,000	16-8
Bucket Truck & Testing Pad	60,000	16-9
Building Services and Grounds Service Building	43,000	16-10
<b>TOTAL NORTH SERVICE CENTER</b>	<b>4,736,000</b>	
<b>BRUNSWICK SERVICE CENTER</b>		
Paving Upgrade - Phase 2	500,000	16-11
<b>TOTAL BRUNSWICK SERVICE CENTER</b>	<b>500,000</b>	
<b><u>HICKORY HILL SERVICE CENTER</u></b>		
Paving Upgrade - Phase 2 - Employee Parking Lot	250,000	16-12
<b>TOTAL HICKORY HILL SERVICE CENTER</b>	<b>250,000</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**GAS DIVISION**

**PAGE 17**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>GENERAL PLANT (Continued)</u></b>		
<b>CHOCTAW</b>		
Security Fencing around Choctaw and new property	80,000	17-1
Replace HVAC Roof-Top Units (7)	62,000	17-2
<b>TOTAL CHOCTAW SERVICE CENTER</b>	<b>142,000</b>	
<b>LNG CAPLEVILLE</b>		
Replace Control House Roof	100,000	17-3
<b>TOTAL LNG CAPLEVILLE CENTER</b>	<b>100,000</b>	
<b>TOTAL BUILDINGS &amp; STRUCTURES</b>	<b>5,817,000</b>	
<b>GAS - SECURITY AUTOMATION</b>	<b>172,800</b>	17-4
<b>GAS - FURNITURE &amp; FIXTURES</b>	<b>254,638</b>	17-5
<b>GAS - AUDIOVISUAL</b>	<b>32,400</b>	17-6
<b>GAS - TOOLS &amp; EQUIPMENT</b>	<b>145,800</b>	17-7
<b>GAS - TOOLS &amp; EQUIPMENT COMMON</b>	<b>206,666</b>	17-8
<b>FLEET CAPITAL COMMON POWER OPERATED EQUIP</b>	<b>2,109,037</b>	17-9
<b>FLEET CAPITAL COMMON TRANSPORTATION EQUIP</b>	<b>3,030,556</b>	17-10
<b>FLEET GAS POWER OPERATED EQUIPMENT</b>	<b>1,278,688</b>	17-11
<b>FLEET GAS TRANSPORTATION EQUIPMENT</b>	<b>2,207,943</b>	17-12
<b>GAS - AUTOMATED FUELING STRUCTURE</b>	<b>60,000</b>	17-13
<b>IS/IT PROJECTS</b>		
ETRM Phase 2 Project	280,000	17-14
<b>TOTAL IS/IT PROJECTS</b>	<b>280,000</b>	
<b>CONTINGENCY FUNDS - GENERAL PLANT</b>	<b>200,000</b>	17-15
<b>TOTAL GENERAL PLANT</b>	<b>15,795,528</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL CARRYOVER SUMMARY\*  
FOR CALENDAR YEAR OF 2023

GAS DIVISION

PAGE 18

<u>CAPITAL CARRYOVER CATEGORY</u>	<u>CARRYOVER AMOUNT</u>
Power Operated and Transportation Equipment	5,114,461
Buildings & Structures	4,316,000
Distribution System	3,770,000
Data Processing- IS/IT	<u>280,000</u>
<b>TOTAL CAPITAL CARRYOVER SUMMARY</b>	<b><u>13,480,461</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 2023 Budget.

# WATER DIVISION



**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**INCOME, EXPENSE, AND CHANGES IN NET POSITION COMPARISON**  
**2021 THROUGH 2023**

WATER DIVISION

PAGE W 18

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2021 ACTUAL	2022 BUDGET	2023 BUDGET	
<b>OPERATING REVENUE</b>				
Sales Revenue	121,291	123,733	125,729	18-1
Revenue Adjustment for Uncollectibles	(574)	(886)	(629)	18-2
Non-Sales Revenue	5,428	5,156	5,526	18-3
<b>OPERATING REVENUE</b>	<b>126,145</b>	<b>128,003</b>	<b>130,626</b>	
<b>OPERATING EXPENSE</b>				
Production Expense	14,546	14,389	15,011	18-4
Distribution Expense	14,209	14,892	17,711	18-5
Customer Accounts Expense	6,814	8,093	8,598	18-6
Customer Service & Information Expense	977	1,138	1,148	18-7
Sales Expense	307	315	344	18-8
Administrative & General Expense	28,182	36,353	35,663	18-9
<b>OPERATING EXPENSE</b>	<b>65,035</b>	<b>75,180</b>	<b>78,475</b>	
<b>MAINTENANCE EXPENSE</b>				
Production Expense	2,839	3,215	3,613	18-10
Distribution Expense	8,544	9,123	9,864	18-11
Administrative & General Expense	3,190	3,849	3,645	18-12
<b>MAINTENANCE EXPENSE</b>	<b>14,573</b>	<b>16,187</b>	<b>17,122</b>	
<b>OTHER OPERATING EXPENSE</b>				
Depreciation Expense	11,522	11,564	11,197	18-13
Payment in Lieu of Taxes	4,500	4,500	4,600	18-14
F.I.C.A. Taxes	507	488	515	18-15
Amortization of Legacy Meters		452	452	18-16
<b>OTHER OPERATING EXPENSE</b>	<b>16,529</b>	<b>17,004</b>	<b>16,764</b>	
<b>TOTAL OPERATING EXPENSE</b>	<b>96,137</b>	<b>108,371</b>	<b>112,361</b>	
<b>INCOME</b>				
Operating Income	30,008	19,632	18,265	18-17
Other Income	1,094	1,049	1,094	18-18
Reduction of Plant Cost Recovered through CIAC	(3,928)	(3,769)	(6,412)	18-19
<b>NET INCOME BEFORE DEBT EXPENSE</b>	<b>27,174</b>	<b>16,912</b>	<b>12,947</b>	
<b>DEBT EXPENSE</b>				
Interest Expense - Existing Long - Term Debt	4,721	4,609	4,470	18-20
Amortization of Debt Discount & Expense	(1,075)	(1,049)	(1,020)	18-21
<b>TOTAL DEBT EXPENSE</b>	<b>3,646</b>	<b>3,560</b>	<b>3,450</b>	
<b>NET INCOME AFTER DEBT EXPENSE</b>	<b>23,528</b>	<b>13,352</b>	<b>9,497</b>	
Contributions in Aid of Construction	3,928	3,769	6,412	18-22
<b>CHANGE IN NET POSITION*</b>	<b>27,456</b>	<b>17,121</b>	<b>15,909</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**  
**2022 THROUGH 2023**

WATER DIVISION

PAGE 18a

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b>OPERATING REVENUE</b>			
<b>Sales Revenue</b>	123,733	125,729	1,996
<b>Revenue Adjustment for Uncollectibles</b>	(886)	(629)	257
<b>Non-Sales Revenue</b>			
Forfeited Discounts	1,508	1,571	63
Miscellaneous Service Revenue	1,668	2,000	332
Cross Connection Revenue	1,392	1,400	8
Other Operating Revenue	444	420	(24)
Rent from Electric/Gas Property	144	135	(9)
<b>Total Non-Sales Revenue</b>	5,156	5,526	370
<b>OPERATING REVENUE</b>	<b>128,003</b>	<b>130,626</b>	<b>2,623</b>
<b>OPERATING EXPENSE</b>			
<b>Production Expense</b>			
Chemicals	950	1,688	738
Operations Production Water Treatment	58	76	18
Fuel or Power Purchased for Pumping	7,449	7,500	51
Miscellaneous Expense	2,456	1,935	(521)
Operation Labor and Expenses	2,922	3,158	236
Operation Supervision and Engineering	237	309	72
Pumping Labor and Expenses	317	345	28
<b>Total Production Expense</b>	<b>14,389</b>	<b>15,011</b>	<b>622</b>
<b>Distribution Expense</b>			
Customer Installation Expenses	2,796	2,946	150
Meter Expenses	1,392	1,600	208
Miscellaneous Distribution Expenses <sup>(1)</sup>	8,075	9,980	1,905
Operation Supervision and Engineering	2,181	2,772	591
Storage Facilities	103	122	19
Transmission and Distribution Lines	343	291	(52)
Rents	2	-	(2)
<b>Total Distribution Expense</b>	<b>14,892</b>	<b>17,711</b>	<b>2,819</b>
<b>Customer Accounts Expense</b>			
Customer Order, Records and Collection Expenses	7,022	7,550	528
Meter Reading Expenses	945	923	(22)
Supervision-Customer Accounting and Collection	126	125	(1)
<b>Total Customer Accounts Expense</b>	<b>8,093</b>	<b>8,598</b>	<b>505</b>
<b>Customer Service &amp; Information Expense</b>			
Customer Assistance Expenses	609	603	(6)
Informational and Instructional Advertising Expenses	247	244	(3)
Supervision-Customer Service and Information	282	301	19
<b>Total Customer Service &amp; Information Expense</b>	<b>1,138</b>	<b>1,148</b>	<b>10</b>
<b>Sales Expense</b>			
Demonstrating and Selling Expenses	-	-	-
Miscellaneous Sales Expenses	315	344	29
Sales Expense and Supervision	-	-	-
<b>Total Sales Expense</b>	<b>315</b>	<b>344</b>	<b>29</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  
2022 THROUGH 2023**

WATER DIVISION

PAGE 18b

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b><u>OPERATING EXPENSE (Continued)</u></b>			
<b>Administrative &amp; General Expense</b>			
Administrative and General Salaries	5,258	4,665	(593)
Administration Expenses Transferred to Capital	(1,532)	(2,364)	(832)
Pension Expense	3,560	3,516	(44)
Other Active & Retiree Benefits	8,621	8,579	(42)
Other Post Employment Benefits	749	243	(506)
Injuries and Damages	1,442	1,362	(80)
Miscellaneous General Expenses <sup>(2)</sup>	4,304	5,786	1,482
Office Supplies and Expenses	1,613	1,557	(56)
Outside Services Employed	7,431	7,167	(264)
Property Insurance	671	727	56
Rents-Miscellaneous	4,236	4,425	189
<b>Total Administrative &amp; General Expense</b>	<b>36,353</b>	<b>35,663</b>	<b>(690)</b>
<b>OPERATING EXPENSE</b>	<b>75,180</b>	<b>78,475</b>	<b>3,295</b>
<b><u>MAINTENANCE EXPENSE</u></b>			
<b>Production Expense</b>			
Maintenance of Pumping Equipment	862	1,036	174
Maintenance of Water Treatment Equipment	1,288	1,299	11
Maintenance of Wells	954	1,130	176
Maintenance Supervision and Engineering	111	148	37
<b>Total Production Expense</b>	<b>3,215</b>	<b>3,613</b>	<b>398</b>
<b>Distribution Expense</b>			
Maintenance of Hydrants	604	574	(30)
Maintenance of Meters	3,144	3,152	8
Maintenance of Miscellaneous Distribution Plant	39	96	57
Maintenance of Services	1,352	1,316	(36)
Maintenance of Transmission and Distribution Mains	3,984	4,726	742
<b>Total Distribution Expense</b>	<b>9,123</b>	<b>9,864</b>	<b>741</b>
<b>Administrative &amp; General Expense</b>			
Maintenance of General Plant	1,575	919	(656)
Facilities Maintenance Expense	2,274	2,726	452
<b>Total Administrative &amp; General Expense</b>	<b>3,849</b>	<b>3,645</b>	<b>(204)</b>
<b>MAINTENANCE EXPENSE</b>	<b>16,187</b>	<b>17,122</b>	<b>935</b>
<b><u>OTHER OPERATING EXPENSE</u></b>			
Depreciation Expense	11,564	11,197	(367)
Payment in Lieu of Taxes	4,500	4,600	100
F.I.C.A. Taxes	488	515	27
Amortization of Legacy Meters	452	452	-
<b>OTHER OPERATING EXPENSE</b>	<b>17,004</b>	<b>16,764</b>	<b>(240)</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>108,371</b>	<b>112,361</b>	<b>3,990</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**  
**2022 THROUGH 2023**

WATER DIVISION

PAGE 18c

DESCRIPTION	THOUSANDS OF DOLLARS		
	2022 BUDGET	2023 BUDGET	DIFFERENCE
<b>INCOME</b>			
<b>Operating Income</b>	19,632	18,265	(1,367)
<b>Other Income</b>			
Revenues from Sinking & Other Funds-Interest Income	500	471	(29)
Medicare Part D Refund	85	160	75
Miscellaneous Non-Operating Income	464	463	(1)
<b>Total Other Income</b>	1,049	1,094	45
<b>Reduction of Plant Cost Recovered through CIAC</b>	(3,769)	(6,412)	(2,643)
<b>NET INCOME BEFORE DEBT EXPENSE</b>	16,912	12,947	(3,965)
<b>DEBT EXPENSE</b>			
<b>Interest Expense - Long-Term Debt</b>			
Interest on Ltd - Series 2014	416	393	(23)
Interest on Ltd - Series 2016	770	732	(38)
Interest on Ltd - Series 2017	837	808	(29)
Interest on Ltd - Series 2020	2,586	2,537	(49)
<b>Total Interest Expense - Long-Term Debt</b>	4,609	4,470	(139)
<b>Amortization of Debt Discount &amp; Expense</b>			
Amortization of Debt Disc & Exp - Series 2014	(47)	(44)	3
Amortization of Debt Disc & Exp - Series 2016	(157)	(149)	8
Amortization of Debt Disc & Exp - Series 2017	(178)	(171)	7
Amortization of Debt Disc & Exp - Series 2020	(667)	(656)	11
<b>Total Amortization of Debt Discount &amp; Expense</b>	(1,049)	(1,020)	18
<b>TOTAL DEBT EXPENSE</b>	3,560	3,450	(121)
<b>NET INCOME AFTER DEBT EXPENSE</b>	13,352	9,497	(3,844)
Contributions in Aid of Construction	3,769	6,412	2,643
<b>CHANGE IN NET POSITION</b>	17,121	15,909	(1,212)

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SOURCE AND APPLICATION OF FUNDS  
2023 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	15,909	19-1
Non-Cash Charges to Income:		
Depreciation Charged to Operating Income	11,197	19-2
Depreciation Charged to Other Accounts	460	19-3
Amortization of Legacy Meters	452	19-4
<b>TOTAL FUNDS FROM OPERATIONS</b>	<b>28,018</b>	
Salvage	71	19-5
Financing: Debt Issuance	-	19-6
<b>TOTAL FUNDS AVAILABLE</b>	<b>28,090</b>	
<b><u>APPLICATION OF FUNDS:</u></b>		
Capital Expenditures	42,532	19-7
Costs of Removal and Other Charges to the Reserve for Depreciation	782	19-8
Retirement of Long-Term Debt	6,505	19-9
<b>TOTAL APPLICATION OF FUNDS</b>	<b>49,819</b>	
<b>INCREASE (DECREASE) IN WORKING CAPITAL</b>	<b>(21,729)</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL EXPENDITURES COMPARISON  
FOR CALENDAR YEAR OF 2023

WATER DIVISION

PAGE 20

DESCRIPTION	THOUSANDS OF DOLLARS			REF. NO.
	2021 Actual	2022 BUDGET	2023 BUDGET	
<b>PRODUCTION SYSTEM</b>				
WATER - PUMPING STATIONS	2,391	13,093	19,938	20-1
WATER - OVERHEAD STORAGE TANKS	-	-	-	20-2
WATER - UNDERGROUND STORAGE RESERVOIRS	7,661	1,300	100	20-3
WATER - PRODUCTION WELLS	2,159	6,124	7,289	20-4
WATER - MONITORING WELLS	5	-	-	20-5
WATER - LAND PURCHASE	-	75	154	20-6
WATER- OPERATIONS MAINTENANCE	757	1,000	1,500	20-7
Contingency Fund - Production System	-	50	50	20-8
<b>SUBTOTAL - PRODUCTION SYSTEM</b>	<b>12,973</b>	<b>21,642</b>	<b>29,031</b>	
WATER - BUILDINGS & STRUCTURES	33	1,399	774	20-9
<b>TOTAL PROD. SYSTEM - BLDGS. &amp; STRUCT.</b>	<b>13,006</b>	<b>23,041</b>	<b>29,805</b>	
<b>DISTRIBUTION SYSTEM</b>				
WATER - RESIDENTIAL SERVICE IN S/D	161	249	348	20-10
WATER - RESIDENTIAL SERVICE NOT IN S/D	328	368	966	20-11
WATER - RESIDENTIAL S/D	286	200	946	20-12
WATER - APARTMENTS	7	23	24	20-13
WATER - GENERAL POWER SERVICE	3,771	3,333	6,341	20-14
WATER - RELOCATE AT CUSTOMER REQUEST	141	104	157	20-15
WATER - STREET IMPROVEMENTS	835	4,141	4,094	20-16
WATER - NEW WATER MAIN	2,279	2,039	3,353	20-17
WATER- LEAD SERVICE REPLACEMENT	1,482	2,500	2,800	20-18
WATER - STORM RESTORATION	393	-	-	20-19
WATER - PURCHASE OF METERS	48	1,682	1,922	20-20
WATER - PLANNED MAINTENANCE	2,222	3,000	3,000	20-21
WATER - BOOSTER STATIONS	-	-	100	20-22
WATER - EMERGENCY MAINTENANCE	2,394	3,330	3,397	20-23
CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC)	(3,769)	(3,054)	(6,412)	20-24
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>10,578</b>	<b>17,915</b>	<b>21,036</b>	
<b>GENERAL PLANT</b>				
WATER - BUILDINGS & STRUCTURES	891	-	-	20-25
WATER - SECURITY AUTOMATION	-	164	82	20-26
WATER - FLEET CAPITAL POWER OPERATED EQUIP	-	380	1,112	20-27
WATER - FLEET CAPITAL WATER TRANSPORTATION EQUIP	363	1,320	1,183	20-28
WATER- IS/IT PROJECTS WATER	-	130	-	20-29
WATER - LAB EQUIPMENT	51	-	-	20-30
WATER - CONTINGENCY FUND	-	200	200	20-31
<b>TOTAL - GENERAL PLANT</b>	<b>1,305</b>	<b>2,194</b>	<b>2,577</b>	
<b>TOTAL - WATER DIVISION CATEGORIES</b>	<b>24,889</b>	<b>43,150</b>	<b>53,418</b>	
Delayed Cost Allocations	(5,587)	(8,795)	(10,886)	20-32
<b>TOTAL - WATER DIVISION</b>	<b>19,302</b>	<b>34,355</b>	<b>42,532</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**WATER DIVISION**

**PAGE 21**

DESCRIPTION	IN	REF.
	BUDGET YEAR	NO.
<b><u>PRODUCTION SYSTEM</u></b>		
<b><u>PUMPING STATIONS</u></b>		
Allen Pumping Station		
Station Rehabilitation (CO)	642,000	21-1
Station Rehabilitation (New Allen)	4,000,000	21-2
Medium Voltage Breaker & Switchgear Replacements (CO)	180,000	21-3
Generator Replacement	1,500,000	21-4
Dedicated Well Electric Circuit Replacement	50,000	21-5
Total Allen Pumping Station	6,372,000	
Davis Pumping Station		
VFD, Motor & Transformer Replacements	1,190,000	21-6
Station Rehabilitation (CO)	142,000	21-7
Total Davis Pumping Station	1,332,000	
Lichterman Pumping Station		
VFD, Motor & Transformer Replacements	100,000	21-8
Station Rehabilitation (CO)	142,000	21-9
Total Lichterman Pumping Station	242,000	
LNG Pumping Station		
Engineer Distributed Process Control System Replacement	20,000	21-10
Install Distributed Process Control System Replacement	390,000	21-11
Station Rehabilitation	12,000	21-12
Total LNG Pumping Station	422,000	
Mallory Pumping Station		
VFD, Motor & Transformer Replacements	500,000	21-13
Medium Voltage Breaker & Switchgear Replacements	30,000	21-14
Generator Replacement (CO)	1,500,000	21-15
Station Rehabilitation	12,000	21-16
Total Mallory Pumping Station	2,042,000	
McCord Pumping Station		
Engineer Distributed Process Control System Replacement	10,000	21-17
Install Distributed Process Control System Replacement	800,000	21-18
VFD, Motor & Transformer Replacements	180,000	21-19
Station Rehabilitation	142,000	21-20
Total McCord Pumping Station	1,132,000	
Morton Pumping Station		
Engineer Distributed Process Control System Replacement	20,000	21-21
Install Distributed Process Control System Replacement	130,000	21-22
Station Rehabilitation	142,000	21-23
Total Morton Pumping Station	292,000	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023**

**WATER DIVISION**

**PAGE 22**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>PUMPING STATIONS CONT.</u></b>		
Palmer Pumping Station		
Engineer Distributed Process Control System Replacement	20,000	22-1
Install Distributed Process Control System Replacement	60,000	22-2
Station Rehabilitation	142,000	22-3
<b>Total Palmer Pumping Station</b>	<b>222,000</b>	
Shaw Pumping Station		
VFD, Motor & Transformer Replacements	1,640,000	22-4
Station Rehabilitation	1,092,000	22-5
<b>Total Shaw Pumping Station</b>	<b>2,732,000</b>	
Sheehan Pumping Station		
VFD, Motor & Transformer Replacements	180,000	22-6
Medium Voltage Breaker & Switchgear Replacements	100,000	22-7
Station Rehabilitation (CO)	1,150,000	22-8
<b>Total Sheehan Pumping Station</b>	<b>1,430,000</b>	
Miscellaneous Pumping Facilities		
Water Operations Capital Items (CO)	1,000,000	22-9
Engineering Services Contract (CO)	2,720,000	22-10
<b>Total Miscellaneous Pumping Facilities</b>	<b>3,720,000</b>	
<b>TOTAL PUMPING STATIONS</b>	<b>19,938,000</b>	
<b><u>UNDERGROUND STORAGE RESERVOIRS</u></b>		
Sheehan Pumping Station		
Engineer Wash Water Recovery Basin Replacement	100,000	22-11
<b>Total Underground Storage Reservoirs</b>	<b>100,000</b>	
<b><u>PRODUCTION WELLS</u></b>		
Mallory Pumping Station - Construct/Replace Well	1,747,251	22-12
Sheehan Pumping Station - Construct/Replace Well	3,494,502	22-13
Well Failures	1,747,251	22-14
Abandon Wells	300,000	22-15
<b>TOTAL PRODUCTION WELLS</b>	<b>7,289,004</b>	
<b><u>OPERATIONS MAINTENANCE</u></b>		
	1,500,000	22-16
<b><u>LAND PURCHASE</u></b>		
	154,000	22-17

MEMPHIS LIGHT, GAS AND WATER DIVISION  
SELECT CAPITAL EXPENDITURE BUDGETS  
FOR CALENDAR YEAR OF 2023

WATER DIVISION

PAGE 23

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>BUILDINGS AND STRUCTURES</u></b>		
<b><u>McCord Pumping Station</u></b>		
Replace Site Paving	80,000	23-1
<b><u>Davis Pumping Station</u></b>		
Replace Roof - 14,100 sf	375,000	23-2
<b><u>SHEAHAN PUMPING STATION</u></b>		
Repave Drives	319,000	23-3
<b>Total Building and Structure</b>	<b>774,000</b>	
<b><u>CONTINGENCY FUND - PRODUCTION SYSTEM</u></b>		
	50,000	23-4
<b>TOTAL PRODUCTION SYSTEM</b>	<b>29,805,004</b>	
<b><u>DISTRIBUTION SYSTEM - MAJOR PROJECTS</u></b>		
<b><u>NEW WATER MAIN</u></b>		
Collecting Main Installation	2,000,000	23-5
Main Replacement Projects	100,000	23-6
Large Main Extensions	300,000	23-7
Miscellaneous Projects - Reimbursable	702,859	23-8
Major Valve Replacements/Additions	200,000	23-9
Minor System Improvements	50,000	23-10
<b>TOTAL NEW WATER MAIN</b>	<b>3,352,859</b>	
<b><u>STREET IMPROVEMENTS</u></b>		
City of Arlington Projects	150,000	23-11
City of Lakeland Projects	500,000	23-12
City of Memphis Projects	1,225,000	23-13
TDOT Projects	2,219,000	23-14
<b>TOTAL STREET IMPROVEMENTS</b>	<b>4,094,000</b>	
<b>LEAD REPLACEMENT</b>	<b>2,800,000</b>	23-15
<b>TOTAL DISTRIBUTION SYSTEM - MAJOR PROJECTS</b>	<b>10,246,859</b>	

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
 SELECT CAPITAL EXPENDITURE BUDGETS  
 FOR CALENDAR YEAR OF 2023**

**WATER DIVISION**

**PAGE 24**

DESCRIPTION	IN BUDGET YEAR	REF. NO.
<b><u>GENERAL PLANT</u></b>		
<b>WATER - SECURITY AUTOMATION</b>	<b>82,080</b>	<b>24-1</b>
<b>WATER - FLEET CAPITAL POWER OPERATED EQUIP</b>	<b>1,111,958</b>	<b>24-2</b>
<b>WATER - FLEET CAPITAL WATER TRANSPORTATION EQUIP</b>	<b>1,183,493</b>	<b>24-3</b>
<b>CONTINGENCY FUNDS</b>	<b>200,000</b>	<b>24-4</b>
<b>TOTAL GENERAL PLANT</b>	<b>2,577,530</b>	

MEMPHIS LIGHT, GAS AND WATER DIVISION  
CAPITAL CARRYOVER SUMMARY\*  
FOR CALENDAR YEAR OF 2023

WATER DIVISION

PAGE 25

<u>CAPITAL CARRYOVER CATEGORY</u>	<u>CARRYOVER AMOUNT</u>
Production	5,745,000
Distribution	2,019,000
Buildings & Structures	1,229,000
Power Transportation Equipment	1,047,563
Land Purchase	4,000
<b>TOTAL CAPITAL CARRYOVER SUMMARY</b>	<b><u>10,044,563</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 2023 Budget.



2023 - 2027 CAPITAL IMPROVEMENT PROGRAM



**2023 ELECTRIC 5-YEAR CAPITAL IMPROVEMENT PROGRAM**

**ELECTRIC DIVISION**

DESCRIPTION	2022 PROJECTION	2023 BUDGET	2024 PROJECTION	2025 PROJECTION	2026 PROJECTION	2027 PROJECTION
<b><u>SUBSTATION AND TRANSMISSION</u></b>						
Substation	\$ 9,853,964	\$ 21,022,015	\$ 24,442,201	\$ 29,132,157	\$ 29,089,546	\$ 13,848,663
Substation Circuit Breakers	\$ 4,710,689	\$ 4,417,278	\$ 3,350,000	\$ 3,350,000	\$ 3,350,000	\$ 3,350,000
Substation Transformers	\$ 3,708,918	\$ 6,708,918	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000
Transmission Lines	\$ 7,392,650	\$ 12,027,108	\$ 3,264,458	\$ 2,060,000	\$ 1,000,000	\$ 1,000,000
CONTRIBUTIONS IN AID OF CONSTRUCTION	\$ -	\$ (10,495,832)	\$ (4,607,153)	\$ -	\$ -	\$ -
TOTAL - SUBSTATION & TRANSMISSION	\$ 25,666,221	\$ 33,679,487	\$ 33,949,506	\$ 42,042,157	\$ 40,939,546	\$ 25,698,663
<b><u>DISTRIBUTION SYSTEM</u></b>						
Apartments	\$ 1,151,648	\$ 1,290,092	\$ 1,341,695	\$ 1,395,363	\$ 1,437,224	\$ 1,480,341
Def. Cable/Trans Replace	\$ 8,900,000	\$ 10,800,000	\$ 10,800,000	\$ 10,800,000	\$ 10,800,000	\$ 10,800,000
Demolition	\$ 35,207	\$ 36,615	\$ 38,080	\$ 39,603	\$ 41,187	\$ 42,834
Emergency Maintenance	\$ 4,273,866	\$ 6,197,531	\$ 6,321,482	\$ 6,447,912	\$ 6,576,870	\$ 6,708,407
General Power Service	\$ 10,593,576	\$ 17,455,726	\$ 16,111,955	\$ 12,336,433	\$ 12,706,526	\$ 13,087,722
General Power Service S/D	\$ 119,328	\$ 124,101	\$ 129,065	\$ 134,227	\$ 138,254	\$ 142,402
Mobile Home Park	\$ 5,495	\$ 5,715	\$ 5,944	\$ 6,182	\$ 6,367	\$ 6,558
Leased Outdoor Lighting	\$ 284,259	\$ 295,629	\$ 307,454	\$ 319,752	\$ 329,345	\$ 339,225
Duct Line Lease	\$ 30,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Distribution Automation	\$ 20,000,000	\$ 31,000,000	\$ 31,000,000	\$ 32,000,000	\$ 22,000,000	\$ 22,000,000
Line Reconstruction	\$ 950,000	\$ 5,250,000	\$ 5,250,000	\$ 5,250,000	\$ 5,250,000	\$ 5,250,000
Multiple-Unit Gen Power	\$ 348,571	\$ 362,514	\$ 377,015	\$ 392,095	\$ 403,858	\$ 415,974
New Circuits	\$ 728,000	\$ 12,025,000	\$ 5,200,000	\$ 3,750,000	\$ 1,000,000	\$ 1,000,000
Voltage Conversion	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planned Maintenance	\$ 8,250,000	\$ 10,264,003	\$ 10,674,563	\$ 11,101,546	\$ 11,545,608	\$ 12,007,432
Distribution Pole Replacement	\$ 3,200,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
Tree Trimming	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
Relocate at Customer Req	\$ 1,787,499	\$ 7,037,456	\$ 7,118,954	\$ 2,203,712	\$ 2,269,824	\$ 2,337,918
Residential S/D	\$ 151,309	\$ 161,561	\$ 168,023	\$ 174,744	\$ 179,986	\$ 185,386
Residential Svc in S/D	\$ 201,763	\$ 209,834	\$ 218,227	\$ 226,956	\$ 233,765	\$ 240,778
Residential Svc not S/D	\$ 2,770,256	\$ 2,881,067	\$ 2,996,309	\$ 3,116,162	\$ 3,209,647	\$ 3,305,936
JT-Resident S/D	\$ 4,368,612	\$ 4,856,392	\$ 5,050,647	\$ 5,252,673	\$ 5,410,254	\$ 5,572,561
JT-Resident Svc not S/D	\$ 6,637	\$ 6,903	\$ 7,179	\$ 7,466	\$ 7,690	\$ 7,921
JT-Residential Svc in S/D	\$ 1,493,481	\$ 1,553,220	\$ 1,615,349	\$ 1,679,963	\$ 1,730,362	\$ 1,782,273
JT-Apartments	\$ 16,481	\$ 34,776	\$ 36,167	\$ 37,613	\$ 38,742	\$ 39,904
Shared Use contract	\$ -	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Storm Restoration	\$ 13,350,476	\$ -	\$ -	\$ -	\$ -	\$ -
Street Improvements	\$ 750,000	\$ 11,910,015	\$ 4,290,000	\$ 2,150,000	\$ 1,000,000	\$ 1,000,000
Street Light Maintenance	\$ 2,700,000	\$ 3,000,000	\$ 3,120,000	\$ 3,244,800	\$ 3,374,592	\$ 3,509,576
Street Lights Install	\$ 7,519,186	\$ 51,579,954	\$ 1,643,152	\$ 1,708,878	\$ 1,760,145	\$ 1,812,949
Temporary Service	\$ 807,872	\$ 844,386	\$ 878,162	\$ 913,288	\$ 940,687	\$ 968,907
Previously Capitalized items - Capacitor Banks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Previously Capitalized Items - Transformers	\$ 5,536,271	\$ 6,528,885	\$ 6,790,040	\$ 7,061,642	\$ 7,344,108	\$ 7,637,872
Previously Capitalized Items - Meters	\$ 17,115	\$ 1,922,497	\$ 2,408,496	\$ 2,783,774	\$ 2,591,385	\$ 2,315,160
Contributions in Aid of Construction	\$ (20,774,074)	\$ (26,875,194)	\$ (24,306,736)	\$ (19,385,566)	\$ (16,014,638)	\$ (16,405,074)
TOTAL - DISTRIBUTION SYSTEM	\$ 79,697,834	\$ 165,458,678	\$ 104,291,222	\$ 99,849,218	\$ 91,011,788	\$ 92,292,962
<b><u>GENERAL PLANT</u></b>						
Purchase of Land	\$ 230,000	\$ 484,930	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000
Buildings/Structures	\$ 696,824	\$ 13,002,200	\$ 31,085,800	\$ 24,486,400	\$ 1,218,900	\$ 709,000
Capital Security Automation	\$ 2,957,832	\$ 2,212,805	\$ 300,000	\$ 100,000	\$ 40,000	\$ 450,000
Lab and Test	\$ 305,640	\$ 386,100	\$ 405,405	\$ 425,675	\$ 446,959	\$ 469,307
Tools and Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Utility Monitoring	\$ 134,750	\$ 11,135,000	\$ 4,360,000	\$ 3,150,000	\$ 550,000	\$ 650,000
Communication Equip	\$ 91,152	\$ 145,800	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Communication Towers	\$ 5,300,000	\$ 4,500,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
Telecommunication Network	\$ 4,155,000	\$ 22,509,000	\$ 14,816,000	\$ 4,816,000	\$ 3,116,000	\$ 3,116,000
Fleet Capital Power Operated Equipment	\$ 270,416	\$ 6,936,280	\$ 3,826,303	\$ 4,055,881	\$ 4,299,234	\$ 4,557,188
Transportation Equipment	\$ 1,043,754	\$ 5,765,766	\$ 2,882,042	\$ 3,054,964	\$ 3,238,262	\$ 3,432,558
Data Processing	\$ -	\$ 17,787,882	\$ 8,220,000	\$ 7,920,000	\$ 6,917,373	\$ 4,475,000
IS/IT Projects	\$ 833,858	\$ -	\$ -	\$ -	\$ -	\$ -
CIS Development	\$ -	\$ 4,500,000	\$ 4,625,000	\$ 4,325,000	\$ 3,000,000	\$ 3,500,000
Business Continuity	\$ -	\$ 1,200,000	\$ 2,000,000	\$ 3,500,000	\$ 2,000,000	\$ 1,500,000
Contingency Fund - General Plant	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Allowance for Late Deliveries (Transportation)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL - GENERAL PLANT	\$ 16,019,226	\$ 90,765,763	\$ 73,770,550	\$ 57,083,920	\$ 26,076,728	\$ 24,109,053
Delayed Cost Allocations	\$ (24,277,000)	\$ (57,980,785)	\$ (42,402,256)	\$ (39,795,059)	\$ (31,605,612)	\$ (28,420,136)
<b>TOTAL - ELECTRIC DIVISION</b>	<b>\$ 97,106,281</b>	<b>\$ 231,923,143</b>	<b>\$ 169,609,022</b>	<b>\$ 159,180,235</b>	<b>\$ 126,422,449</b>	<b>\$ 113,680,542</b>

**2023 GAS 5-YEAR CAPITAL IMPROVEMENT PROGRAM**

**GAS DIVISION**

DESCRIPTION	2022 PROJECTION	2023 BUDGET	2024 PROJECTION	2025 PROJECTION	2026 PROJECTION	2027 PROJECTION
<b>PRODUCTION SYSTEM</b>						
LNG - Processing Facilities	\$ 60,000	\$ 894,000	\$ 6,600,000	\$ 1,300,000	\$ 2,800,000	\$ 1,300,000
CNG Stations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL PRODUCTION SYSTEM</b>	<b>\$ 60,000</b>	<b>\$ 894,000</b>	<b>\$ 6,600,000</b>	<b>\$ 1,300,000</b>	<b>\$ 2,800,000</b>	<b>\$ 1,300,000</b>
<b>DISTRIBUTION SYSTEM</b>						
Apartments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demolition	\$ -					
Emergency Maintenance	\$ 1,900,000	\$ 1,609,666	\$ 1,641,859	\$ 1,674,696	\$ 1,708,190	\$ 1,742,354
Gas Main-Svc Repl (DOT)	\$ 6,447,000	\$ 6,156,000	\$ 6,156,000	\$ 6,156,000	\$ 6,106,000	\$ 6,056,000
Gate Stations	\$ -	\$ 930,000	\$ 400,000	\$ 1,500,000	\$ 1,500,000	\$ -
General Power S/D	\$ 6,600	\$ 6,864	\$ 7,139	\$ 7,424	\$ 7,647	\$ 7,876
General Power Service	\$ 3,247,843	\$ 3,768,521	\$ 1,931,261	\$ 1,696,512	\$ 1,747,407	\$ 1,799,829
Multiple-Unit Gen Power	\$ 89,108	\$ 119,966	\$ 124,764	\$ 129,755	\$ 133,648	\$ 137,657
New Gas Main	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Trans Pipeline/Facilities	\$ 1,400,000	\$ 600,000	\$ 30,435,500	\$ 1,000,000	\$ 1,000,000	\$ 1,500,000
Purchase of Land	\$ 4,105	\$ 225,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Operations Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	
Planned Maintenance	\$ 2,100,000	\$ 5,093,798	\$ 5,195,674	\$ 5,299,588	\$ 5,405,580	\$ 5,513,691
Regulator Stations	\$ 679,500	\$ 825,800	\$ 825,800	\$ 825,800	\$ 825,800	\$ 825,800
Relocate at Customer Req	\$ 676,949	\$ 834,196	\$ 867,564	\$ 902,267	\$ 929,335	\$ 957,215
Residential Svc in S/D	\$ 8,506	\$ 8,847	\$ 9,201	\$ 9,569	\$ 9,856	\$ 10,151
Residential Svc not S/D	\$ 1,527,238	\$ 1,791,979	\$ 1,863,658	\$ 1,938,204	\$ 1,996,350	\$ 2,056,241
Residential S/D	\$ 2,929	\$ 7,245	\$ 7,535	\$ 7,836	\$ 8,071	\$ 8,313
Street Improvements	\$ 1,000,000	\$ 3,714,000	\$ 2,200,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
JT-Resident S/D	\$ 1,588,330	\$ 1,786,022	\$ 1,857,462	\$ 1,931,761	\$ 1,989,714	\$ 2,049,405
JT-Resident Svc not S/D	\$ 1,130	\$ 1,175	\$ 1,222	\$ 1,271	\$ 1,309	\$ 1,349
JT-Resident in S/D	\$ 621,105	\$ 645,949	\$ 671,787	\$ 698,659	\$ 719,618	\$ 741,207
JT-Apartments	\$ -	\$ 7,581	\$ 7,884	\$ 8,199	\$ 8,445	\$ 8,699
Previously Capitalized Items - Meters & Metering Equipment	\$ -	\$ 3,446,366	\$ 3,252,399	\$ 3,395,875	\$ 3,785,755	\$ 3,873,652
Contributions in Aid of Construction	\$ (4,318,873)	\$ (18,155,928)	\$ (16,075,176)	\$ (14,615,778)	\$ (15,325,026)	\$ (8,525,486)
<b>TOTAL DISTRIBUTION SYSTEM</b>	<b>\$ 17,231,470</b>	<b>\$ 13,673,047</b>	<b>\$ 41,706,533</b>	<b>\$ 13,892,638</b>	<b>\$ 13,882,699</b>	<b>\$ 20,088,953</b>
<b>GENERAL PLANT</b>						
Buildings/Structures	\$ 2,910,842	\$ 5,817,000	\$ 3,726,000	\$ 4,465,200	\$ 175,000	\$ 220,000
Capital Security Automation	\$ 940,730	\$ 172,800	\$ 227,065	\$ 120,000	\$ 20,000	\$ 450,000
Furniture & Fixtures	\$ 237,600	\$ 254,638	\$ -	\$ -	\$ -	
Audiovisual	\$ -	\$ 32,400				
Tools and Equipment	\$ 6,767	\$ 145,800	\$ 153,090	\$ 160,744	\$ 168,781	\$ 177,220
Tools and Equipment - Common	\$ 16,491	\$ 206,666	\$ 217,000	\$ 227,850	\$ 239,243	\$ 251,205
Fleet Capital Transportation & Power Operated Equipment - Gas	\$ 1,524,783	\$ 3,486,631	\$ 1,679,702	\$ 1,780,484	\$ 1,887,313	\$ 2,000,552
Fleet Capital Transportation Equipment & Power Operated Equipment - Common	\$ 1,250,806	\$ 5,139,592	\$ 2,091,251	\$ 2,216,726	\$ 2,349,730	\$ 2,490,714
Automated Fueling Structure	\$ -	\$ 60,000	\$ 60,000			
IS/IT Projects	\$ -	\$ 280,000	\$ -	\$ -	\$ -	\$ -
Contingency Fund - General Plant	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
<b>TOTAL - GENERAL PLANT</b>	<b>\$ 6,888,019</b>	<b>\$ 15,795,527</b>	<b>\$ 8,354,108</b>	<b>\$ 9,171,004</b>	<b>\$ 5,040,067</b>	<b>\$ 5,789,691</b>
Delayed Cost Allocations	\$ (4,836,000)	\$ (6,081,663)	\$ (11,332,128)	\$ (4,872,729)	\$ (4,344,553)	\$ (5,435,728)
<b>TOTAL - GAS DIVISION</b>	<b>\$ 19,343,489</b>	<b>\$ 24,280,911</b>	<b>\$ 45,328,513</b>	<b>\$ 19,490,913</b>	<b>\$ 17,378,213</b>	<b>\$ 21,742,916</b>

**2023 WATER 5-YEAR CAPITAL IMPROVEMENT PROGRAM**

DESCRIPTION	2022 PROJECTION	2023 BUDGET	2024 PROJECTION	2025 PROJECTION	2026 PROJECTION	2027 PROJECTION
<b>PRODUCTION SYSTEM</b>						
Production Wells	\$ 4,587,714	\$ 7,289,004	\$ 7,289,004	\$ 7,289,004	\$ 7,289,004	\$ 7,289,004
Pumping Stations	\$ 7,099,097	\$ 19,938,000	\$ 34,752,781	\$ 50,950,781	\$ 53,290,781	\$ 51,200,000
Underground Storage Reservoirs	\$ 3,327,105	\$ 100,000	\$ 750,000	\$ 7,275,000	\$ 2,700,000	\$ -
Purchase of Land	\$ 4,400	\$ 154,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Operations Maintenance	\$ 1,600,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
Contingency Fund - Production system	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
<b>SUBTOTAL - PRODUCTION SYSTEM</b>	<b>\$ 16,618,316</b>	<b>\$ 29,031,004</b>	<b>\$ 44,491,785</b>	<b>\$ 67,214,785</b>	<b>\$ 64,979,785</b>	<b>\$ 60,189,004</b>
<b>SUBTOTAL - BLDGS. AND STRUCTURES</b>	<b>\$ 171,370</b>	<b>\$ 774,000</b>	<b>\$ 1,774,000</b>	<b>\$ 4,346,000</b>	<b>\$ 787,000</b>	<b>\$ -</b>
<b>TOTAL PROD. SYSTEM w/BLDGS &amp; STRU</b>	<b>\$ 16,789,686</b>	<b>\$ 29,805,004</b>	<b>\$ 46,265,785</b>	<b>\$ 71,560,785</b>	<b>\$ 65,766,785</b>	<b>\$ 60,189,004</b>
<b>DISTRIBUTION SYSTEM</b>						
Apartments	\$ 773	\$ 23,899	\$ 24,855	\$ 25,849	\$ 26,625	\$ 27,423
Emergency Maintenance	\$ 2,227,798	\$ 3,396,992	\$ 3,464,933	\$ 3,534,232	\$ 3,604,916	\$ 3,677,014
General Power Service	\$ 4,415,947	\$ 6,341,469	\$ 6,595,127	\$ 6,858,933	\$ 7,064,701	\$ 7,276,642
New Water Main	\$ 1,000,000	\$ 3,352,859	\$ 2,468,730	\$ 2,468,705	\$ 2,148,705	\$ 2,148,705
Lead Service Replacement	\$ 2,000,000	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000
Planned Maintenance	\$ 2,200,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Booster Stations	\$ -	\$ 100,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
Relocate at Customer Req	\$ 98,870	\$ 157,412	\$ 163,709	\$ 170,257	\$ 175,365	\$ 180,626
Residential S/D	\$ 784,244	\$ 945,783	\$ 983,614	\$ 1,022,958	\$ 1,053,647	\$ 1,085,257
Residential Svc in S/D	\$ 332,476	\$ 347,875	\$ 361,790	\$ 376,261	\$ 387,549	\$ 399,175
Residential Svc not S/D	\$ 736,799	\$ 965,723	\$ 1,004,352	\$ 1,044,526	\$ 1,075,862	\$ 1,108,138
Street Improvements	\$ 2,125,000	\$ 4,094,000	\$ 3,250,000	\$ 2,500,000	\$ 2,000,000	\$ 2,000,000
WATER - STORM RESTORATION	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Previously Capitalized Items - Meters	\$ -	\$ 1,922,497	\$ 2,408,496	\$ 2,783,774	\$ 2,591,385	\$ 2,315,160
Contributions in Aid of Construction	\$ (3,239,705)	\$ (6,412,509)	\$ (17,146,538)	\$ (17,384,008)	\$ (17,049,234)	\$ (6,850,219)
<b>TOTAL - DISTRIBUTION SYSTEM</b>	<b>\$ 12,682,202</b>	<b>\$ 21,036,000</b>	<b>\$ 9,879,068</b>	<b>\$ 9,701,487</b>	<b>\$ 9,379,521</b>	<b>\$ 19,667,921</b>
<b>GENERAL PLANT</b>						
Buildings/Structures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Security Automation	\$ 164,160	\$ 82,080	\$ 44,279	\$ 111,841	\$ 99,998	\$ 449,999
Fleet Capital Power Operated Equipment	\$ -	\$ 1,111,958	\$ 1,186,625	\$ 1,257,822	\$ 1,333,292	\$ 1,413,289
Transportation Equipment	\$ 418,705	\$ 1,183,492	\$ 1,208,224	\$ 1,280,717	\$ 1,357,561	\$ 1,439,014
IS/IT Projects Water	\$ 5,813	\$ -	\$ -	\$ -	\$ -	\$ -
Tools and Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contingency Fund - General Plant	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
<b>TOTAL - GENERAL PLANT</b>	<b>\$ 588,678</b>	<b>\$ 2,577,530</b>	<b>\$ 2,639,128</b>	<b>\$ 2,850,380</b>	<b>\$ 2,990,851</b>	<b>\$ 3,502,302</b>
Delayed Cost Allocations	\$ (6,012,000)	\$ (10,885,988)	\$ (11,756,796)	\$ (\$16,822,530)	\$ (\$15,627,431)	\$ (\$16,671,845)
<b>TOTAL - WATER DIVISION</b>	<b>\$ 24,048,566</b>	<b>\$ 42,532,546</b>	<b>\$ 47,027,185</b>	<b>\$ 67,290,122</b>	<b>\$ 62,509,726</b>	<b>\$ 66,687,382</b>

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

**Total Capital Expenditures**

3-1	Total Capital Expenditures	Expected capital spend in 2023 budget year.
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**NOTES FOR PAGE 4—INCOME & 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 transmission system, of structures, and station equipment. This includes maintenance of overhead lines and underground lines.
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 & 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 and 12-01 per the bond debt schedules are funded in equal monthly installments.
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 4c.
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	Debt Issuance	None.

**Application of Funds**

5-8	Capital Expenditures	Please see Budget page 6.
5-9	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.
5-10	Retirement of Long-Term Debt	Bond principal amounts due 12-01 per the bond debt schedules are funded in equal monthly installments

## NOTES FOR PAGE 6—CAPITAL EXPENDITURES

**Substation and Transmission**

6-1	<b>Substation</b>	Please see Appendix 7-1 through 7-18.
6-2	<b>Substation Transformers Replacement</b>	Please see Appendix 7-19 through 7-21.
6-3	<b>Substation Circuit Breakers Replacement</b>	Please see Appendix 7-22 through 7-33..
6-4	<b>Transmission Lines</b>	Please see Appendix 8-1 through 8-11 .
6-5	<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.

**Distribution System****Major Projects**

6-6	<b>Residential Service in S/D</b>	All subdivisions that are fed internally by overhead electric primary lines.
6-7	<b>Residential Service Not in S/D</b>	Property not in subdivisions fed internally by overhead electric primary lines.
6-8	<b>Residential S/D</b>	Other property not in subdivisions fed internally by overhead electric primary lines.
6-9	<b>Apartments</b>	All apartments and mobile home communities that are fed internally by overhead electric primary lines.
6-10	<b>General Power Service</b>	Commercial properties that are fed internally by overhead or underground electric primary lines
6-11	<b>General Power S/D</b>	Commercial properties in subdivisions that are fed internally by overhead or underground electric primary lines
6-12	<b>Mobile Home Park</b>	All apartments and mobile home communities that are fed internally by overhead electric primary lines. No expenditures for the 2023 budget year.
6-13	<b>Temporary Service</b>	Services used for temporary construction
6-14	<b>Multiple Unit General Power</b>	Commercial properties and apartments that are fed internally by overhead or underground electric primary lines
6-15	<b>Relocate At Customer Request</b>	This budget category provides for the expenses incurred at customers request for facilities to be relocated.
6-16	<b>Street Improvements</b>	This budget category provides for the expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated. Please see Appendix 9-1 through 9-22.
6-17	<b>New Circuits</b>	Please see Appendix 8-12 through 8-21.
6-18	<b>Voltage Conversion</b>	This budget category describes projects whereby existing distribution lines are modified to have the system operated voltage converted from 12 KV to 23 KV.
6-19	<b>Line Reconstruction/Remove Idle Facilities</b>	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 voltage/reliability; or existing idle facilities are removed to decrease losses.
6-20	<b>Defect Cable/Feeder Cable Replacement</b>	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.
6-21	<b>Distribution Poles</b>	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.
6-22	<b>Distribution Automation</b>	To install communications and hardware to allow for remote/automated operation to provide for more advanced restoration capabilities.

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

**Major Projects (Continued)**

6-23	Street Lights Install	The 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. Includes COMLED conversion project.
6-24	Demolition	The budget includes demolition work.
6-25	Street Light Maintenance	The 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.
6-26	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.
6-27	Tree Trimming	Trim or remove trees interfering with overhead lines.
6-28	Operations Maintenance	No expenditures planned for the budget year.
6-29	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.
6-30	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.
6-31	Shared Use Contract	To account for small cell pole attachments.
6-32	Duct Line Lease	To account for leasing available duct line for fiber cable.
6-33	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.
6-34	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).
6-35	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).
6-36	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).
6-37	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).
6-38	PCI-Capacitor Banks	No expenditures planned for the budget year.
6-39	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.
6-40	Elec 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.
6-41	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**

6-42	Buildings and Structures	Please see Appendix 9-24 through 9-26.
6-43	Security Automation	Please see Appendix 10-6.
6-44	Land Purchase	Please see Appendix 9-23.
6-45	Fleet Capital Power Operated	Please see Appendix 10-7.
6-46	Transportation Equipment	Please see Appendix 10-8.
6-47	Tools & Equipment	No expenditures planned for the 2023 budget year.
6-48	Lab & Test	Please see Appendix 10-10.
6-49	Communication Equipment	Please see Appendix 10-9.
6-50	Communication Towers	Please see Appendix 10-11.
6-51	Telecommunication Network	Please see Appendix 10-12 through 10-18.
6-52	Utility Monitoring	Please see Appendix 11-1.
6-53	Customer Information System Development	Please see Appendix 11-2 through 11-4.
6-54	Business Continuity	Please see Appendix 11-5 through 11-7.
6-55	Data Processing Equipment	Please see Appendix 11-8 through 11-20.
6-56	IS/IT Projects	No expenditures planned for the budget year.
6-57	Contingency Fund	Please see Appendix 11-21..
6-58	Delayed Cost Allocations	These are funds budgeted in the current year for items that may be delayed from the previous year's budget.

## NOTES FOR PAGE 7-CAPITAL EXPENDITURES BUDGET

## Substation &amp; Transmission

## Substation

7-1	Install Substation 83 161/23kV Facilities	Description/Location	Various locations
		Purpose/Necessity	Substation 83 161/23kV Facilities build
7-2	Replace RTU's various locations	Description/Location	Replace RTU's various locations
		Purpose/Necessity	Replace failed breakers
7-3	Replace relays various locations	Description/Location	Replace relays various locations
		Purpose/Necessity	Replace failed breakers
7-4	Install Substation 76 third 115/12 kV transformer	Description/Location	Install Substation 76 third 115/12
		Purpose/Necessity	Substation 76
7-5	Sub #44 Install Definite Purpose Capacitor Bank Breakers 44361 & 44363 Bank	Description/Location	Replace capacitor banks various locations
		Purpose/Necessity	Substation 44
7-6	Replace capacitor banks various locations	Description/Location	Replace capacitor banks various locations
		Purpose/Necessity	Replace failed breakers
7-7	AC Service for Breaker Storage Yard @ Substation 33	Description/Location	Various locations
		Purpose/Necessity	Install SATEC Metering
7-8	Replace batteries various locations	Description/Location	Replace batteries various locations
		Purpose/Necessity	Replace batteries various locations
7-9	Permanent Storage Solution for Mobile Substation @ Substation 33	Description/Location	Permanent Storage Solution for Mobile Substation
		Purpose/Necessity	Substation 33
7-10	Install 12 kV Circuit Breaker 47221 @ Substation 47 (Planning Request)	Description/Location	Install 12 kV Circuit Breaker 47221
		Purpose/Necessity	Substation 47
7-11	Sub #27 -- Install Cap Switchers on Cap Banks 7663 and 7665	Description/Location	Install Cap Switchers on Cap Banks 7663 and 7665
		Purpose/Necessity	Substation 27
7-12	Install 23 kV Circuit Breaker 5311 @ Substations 5 (Liberty Park PDO)	Description/Location	Install 23 kV Circuit Breaker 5311
		Purpose/Necessity	Substation 5
7-13	Install SATEC Metering at Various Substations (Distribution Automation)	Description/Location	Various locations
		Purpose/Necessity	Various locations
7-14	Substation 4 OH/UG Conversion Ckts 2395 & 2397 (City of Memphis)	Description/Location	Replace OH/UG Conversion Ckts 2395 & 2397 (City of Memphis)
		Purpose/Necessity	Implement Breaker Fail Scheme
7-15	Install Transmission Metering Equipment for Transmission Planning Monitoring	Description/Location	Transmission Metering Equipment
		Purpose/Necessity	Transmission Metering Equipment
7-16	Contingency Replace Switches	Description/Location	Replace switches
		Purpose/Necessity	Various locations
7-17	Other Miscellaneous Replace/Install	Description/Location	Substation
		Purpose/Necessity	Other Miscellaneous Replace/Install
7-18	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)

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

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

7-19	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
7-20	Replace 115/12kV transformer banks 6555, 6557 & 6559 @ Substation 6	Description/Location	Substation 6
		Purpose/Necessity	Replacement of failed transformers at substations
7-21	Contingency Fund - General Plant	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	

**Substation Circuit Breakers**

7-22	Replace 161 kV Breakers 38625 38627 & 38659 @ Substation 38 (Aging Infrastructure)	Description/Location	Replace 161 kV Breakers 38625 38627 & 38659 @ Substation 38 (Aging Infrastructure)
		Purpose/Necessity	Substation 38
7-23	Contingency Replace Breakers	Description/Location	Replace failed breakers
		Purpose/Necessity	Replace failed breakers
7-24	Replace 12 kV Breaker 6609 @ Substation 26	Purpose/Necessity	Replace failed breakers
		Purpose/Necessity	Substation 26
7-25	Replace 12 kV Breaker 41259 @ Substation 41 (Aging Infrastructure)	Description/Location	Replace 12 kV Breaker 41259 @ Substation 41 (Aging Infrastructure)
		Purpose/Necessity	Replace failed breakers
7-26	Replace 23 kV Breaker 4301 @ Substation 4	Description/Location	Replace 23 kV Breaker 4301 @ Substation 4
		Purpose/Necessity	Replace failed breakers
7-27	Replace 12 kV Breaker 6259 @ Substation 6	Description/Location	Replace 12 kV Breaker 6259 @ Substation 6
		Purpose/Necessity	Replace failed breakers
7-28	Replace 12 kV Breaker 6257 @ Substation 6	Description/Location	Replace 12 kV Breaker 6609 @ Substation 26
		Purpose/Necessity	Replace failed breakers
7-29	Replace 12 kV Breaker 38257 @ Substation 38	Description/Location	Replace 12 kV Breaker 38257 @ Substation 38
		Purpose/Necessity	Replace failed breakers
7-30	Replace 23 kV Breaker 4361 @ Substation 4 (Aging Infrastructure)	Description/Location	Replace 23 kV Breaker 4361 @ Substation 4
		Purpose/Necessity	Replace failed breakers
7-31	Replace 23 kV Breaker 1837 @ Substation 11	Description/Location	Replace 23 kV Breaker 1837 @ Substation 11
		Purpose/Necessity	Replace failed breakers
7-32	Replace 23 kV Breaker 1835 @ Substation 11	Description/Location	Replace 23 kV Breaker 1835 @ Substation 11
		Purpose/Necessity	Replace failed breakers
7-33	Replace 23 kV Breaker 45349 @ Substation 45	Description/Location	Replace 23 kV Breaker 45349 @ Substation 45
		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 (USACE Section 14 Funding)	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	Sub 83 Cut-in	Description/Location	Substation 83
		Purpose/Necessity	Substation 83 Cut-in
8-4	OPGW 42-23	Description/Location	OPGW 42 - 23
		Purpose/Necessity	Install fiber communication between Substations 42 & 23.
8-5	OPGW 11-35	Description/Location	OPGW 11 - 35
		Purpose/Necessity	Install fiber communication between Substations 11 & 35.
8-6	Structure #1871 Bank Stabilization (USACE Section 14 Funding)	Description/Location	Structure #1871 Bank Stabilization
		Purpose/Necessity	USACE Section 14 Funding
8-7	UAV Contract #12134	Description/Location	UAV Contract #12134
		Purpose/Necessity	UAV Contract #12134
8-8	LIDAR Survey Impacts (NERC)	Description/Location	LIDAR Survey Impacts (NERC)
		Purpose/Necessity	LIDAR Survey Impacts (NERC)
<b>Transmission - Reimbursable</b>			
8-9	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.
8-10	TDOT Lamar & Shelby Drive	Description/Location	TDOT Lamar & Shelby Drive
		Purpose/Necessity	Lamar & Shelby Drive
8-11	Contribution In Aid of Construction - CIAC	Description/Location	Contribution In Aid of Construction - CIAC
		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.

**Distribution System - Major Projects****New Circuits Out of Substations**

8-12	Sub 83	Description/Location	Install multiple circuit ties for station 83 circuits.
		Purpose/Necessity	Reliability and switching flexibility
8-13	Sub 83 Cabling (6 ckts)	Description/Location	Install multiple circuit ties for station 83 circuits.
		Purpose/Necessity	Reliability and switching flexibility
8-14	Substation 84 Ckt Ties	Description/Location	Install multiple circuit ties for station 84 circuits.
		Purpose/Necessity	Reliability and switching flexibility
8-15	New Ckt Sub 84 North	Description/Location	Install multiple circuit ties for station 84 circuits.
		Purpose/Necessity	Reliability and switching flexibility
8-16	Sub 83 Ckt Ties	Description/Location	Install multiple circuit ties for station 83 circuits.
		Purpose/Necessity	Reliability and switching flexibility
8-17	Other 2020-24 Projects	Description/Location	Install multiple circuit ties for Other Projects.
		Purpose/Necessity	Reliability and switching flexibility
8-18	Kellogg's Alternate CKT Upgrade	Description/Location	Kellogg's Alternate CKT upgrade
		Purpose/Necessity	Reliability and switching flexibility
8-19	Sub 84, Germantown Rd. Steel Pole Line	Description/Location	Install multiple circuits for substation 84 - Germantown Rd. Steel Pole Line
		Purpose/Necessity	Reliability and switching flexibility
8-20	Schilling Farms Circuit Tie(s)	Description/Location	Install multiple circuits at Schilling Farms
		Purpose/Necessity	Reliability and switching flexibility
8-21	Ckt Ties in Sub 15/84/68 Area	Description/Location	Install Ckt Ties in Sub 15/84/68 Area
		Purpose/Necessity	Reliability and switching flexibility

**Miscellaneous Reimbursable Projects**

8-22	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.
8-23	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.

## NOTES FOR PAGE 9-CAPITAL EXPENDITURES BUDGET

**Street Improvement Projects**

9-1	SR-4/US-78/Lamar, south of SR-175/Shelby Dr. to Raines/Perkins Interchange Phase 2	Description/Location	SR-4/US-78/Lamar, south of SR-175/Shelby Dr. to Raines/Perkins Interchange Phase 2
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-2	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.
9-3	Elvis Presley Blvd. North and Middle Section	Description/Location	Eves Presley Corridor-North and Middle Section
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-4	Other Projections 2023-2027	Description/Location	Other Projections 2023-2027
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-5	Germantown Road @Wolf River Blvd (GT 16/01)	Description/Location	Germantown Rd. at Wolf River Blvd.
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-6	Holmes Road, Malone to US-78/Lamar (CP 04/38)	Description/Location	Holmes Road, Malone to US-78/Lamar (CP 04/38)
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-7	SR-14, from Kerrville Rosemark to Tipton County Line	Description/Location	SR-14, from Kerrville Rosemark to Tipton County Line
		Purpose/Necessity	Relocate utilities SR-14, from Kerrville Rosemark to Tipton County Line
9-8	Malone, Holmes to Shelby Drive	Description/Location	Malone, Holmes to Shelby Drive
		Purpose/Necessity	Relocate utilities Malone, Holmes to Shelby Drive
9-9	LL 09/02 - New Canada Rd. (Re-Alignment N of I-40 to US-70)	Description/Location	LL 09/02 - New Canada Rd. (Re-Alignment N of I-40 to US-70)
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-10	Airways @ Ketchum (SP 11/07)	Description/Location	Airways @ Ketchum (SP 11/07)
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-11	Navy Road, Phase 2, Church to Veterans Pkwy	Description/Location	Navy Road, Phase 2, Church to Veterans Pkwy
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-12	Washington Street Improvements, Main to Mt. Pleasant	Description/Location	Washington Street Improvements, Main to Mt. Pleasant
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-13	Bartlett Road @ Ivanhoe - Signal	Description/Location	Bartlett Road @ Ivanhoe - Signal
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-14	Corsica at Pine Bark Drainage	Description/Location	Corsica at Pine Bark Drainage
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-15	Easthill Subdivision - Drainage	Description/Location	Easthill Subdivision - Drainage
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-16	Mickey to Millbranch - Drainage (MSQ2)	Description/Location	Mickey to Millbranch - Drainage (MSQ2)
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-17	Prosperity Subdivision - Drainage	Description/Location	Prosperity Subdivision - Drainage
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-18	S. Main St. Extd. - Drainage	Description/Location	S. Main St. Extd. - Drainage
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities
9-19	Dexter Lane north of Rainsong Cove Drainage	Description/Location	Dexter Lane north of Rainsong Cove Drainage
		Purpose/Necessity	Relocate utilities for proposed street improvement project by TDOT or municipalities

**ELECTRIC DIVISION**

**NOTES FOR PAGE 9 – CAPITAL EXPENDITURES BUDGET (CONT'D)**

<b>9-20</b>	<b>Germantown Rd at Legacy Drive - Drain RCP repair</b>	<b>Description/Location</b>	Germantown Rd at Legacy Drive - Drain RCP repair
		<b>Purpose/Necessity</b>	Relocate utilities for proposed street improvement project by TDOT or municipalities
<b>9-21</b>	<b>Lillian Drive - Drainage (MSQ2)</b>	<b>Description/Location</b>	Lillian Drive - Drainage (MSQ2)
		<b>Purpose/Necessity</b>	Relocate utilities for proposed street improvement project by TDOT or municipalities
<b>9-22</b>	<b>Tonto Road - Drainage Project</b>	<b>Description/Location</b>	Tonto Road - Drainage Project
	<b>Tonto Road - Drainage Project</b>	<b>Purpose/Necessity</b>	Relocate utilities for proposed street improvement project by TDOT or municipalities

**General Plant**

**Buildings and Structures**

<b>9-23</b>	<b>Purchase of Land</b>	<b>Description/Location</b>	Land purchase or the acquisition of land rights for distribution and transmission line facilities.
		<b>Purpose/Necessity</b>	To accommodate electric facilities, transmission lines, feeder circuits, etc.

**Substations**

<b>9-24</b>	<b>Replace Roofs - Various Substations</b>	<b>Description/Location</b>	Various Substations
		<b>Purpose/Necessity</b>	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**

<b>9-25</b>	<b>New Storeroom Building</b>	<b>Description/Location</b>	Needed to store special material purchased by the electric groups that are not purchased and managed by stores.
		<b>Purpose/Necessity</b>	New Storeroom Building
<b>9-26</b>	<b>Radio Tower Bldg: Replace 874 sq ft roof</b>	<b>Description/Location</b>	Radio Tower Bldg: Replace 874 sq ft roof
		<b>Purpose/Necessity</b>	Repairs necessary due to increased maintenance, potential leaking, and projected life expectancy.

## NOTES FOR PAGE 10-CAPITAL EXPENDITURES BUDGET

**Netters Business Operations Center**

10-1	UPS Battery Replacement	Description/Location	Replace UPS battery which occurs every 5 years
		Purpose/Necessity	UPS battery replacement for uninterrupted power supply in computer room
10-2	Building Upgrades	Description/Location	Building upgrades
		Purpose/Necessity	Building upgrades
10-3	EV Charging Stations	Description/Location	Electric Vehicle charging stations
		Purpose/Necessity	Electric Vehicle charging stations
10-4	Expansion Property Site Development	Description/Location	Expansion property north of Choctaw
		Purpose/Necessity	Purchased property (Choctaw); site development which includes fencing, automatic gate, roads and stored items.
10-5	Implement Distribution Automation Relay Testing Lab/Training Facility	Description/Location	Build Training, Engineering, Automation and Modernization (TEAM) Lab, TBD
		Purpose/Necessity	TEAM Lab facility will be used to test device capabilities and configurations, validate device functionality, educate and train field/operations personnel, and provide dedicated testing and training space for full system automation familiarly and maintenance.
10-6	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 upgraded throughout the division.
10-7	Fleet Capital Power Operated 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.
10-8	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.
10-9	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
10-10	Lab & Test	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
<b>Communication Towers</b>			
10-11	Microwave/Mobile Radio	Description/Location	Reconfigure microwave loop for Netters radio tower
		Purpose/Necessity	Installation of Netters radio tower requires reconfiguration of microwave loop
<b>Telecommunication Network</b>			
10-12	Distribution Automation Communication Infrastructure	Description/Location	Wireless and fiber infrastructure across Shelby County
		Purpose/Necessity	Upgrading communications infrastructure, wireless and fiber, to provide a reliable and resilient network for operation of Distribution Automation by Electric Operations during electrical service interruptions.
10-13	DA Network Improvements	Description/Location	Memphis and Shelby County
		Purpose/Necessity	Installation of Distribution Automated Switches to improve responsiveness and aid in reducing customer minutes interrupted. Projected to install over 1100 automated distribution switches over a five year period.
10-14	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.
10-15	Fiber Optic Cable and Equipment	Description/Location	Install fiber optic cable at various locations.
		Purpose/Necessity	Provide fiber optic communications to specified facilities.
10-16	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.
10-17	TDOT Summer Avenue Job	Description/Location	Summer Avenue
		Purpose/Necessity	TDOT Project
10-18	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 11-CAPITAL EXPENDITURES BUDGET (General Plant Continued)

General Plant (continued)Utility Monitoring & Control Systems

11-1	Systems Backup Control & Communication Plan (CO)	Description/Location	SCADA and CARES Systems long-term development
		Purpose/Necessity	Support long-term development of SCADA and CARES systems which involves implementation of backup system, upgrade of SCADA communications systems which includes relocating communication paths from ESO to fiber ring.

Customer Info System (CIS) Development

11-2	BillGen Replacement (Carryover)	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.
11-3	IRV and Call Center Expansion Project	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 MLGW to make changes as needed to better meet customer needs and improve customer experience.
		Purpose/Necessity	To improve customer ease of use and experience.
11-4	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.
		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.

Business Continuity

11-5	Business Continuity/Disaster Recovery Site	Description/Location	DR/BC Recovery Site
		Purpose/Necessity	This is a multi-year project upgrade disaster recovery systems to include an out-region location
11-6	Data Center Enhancements Connectivity Improvements	Description/Location	Improve Data Center Operations
		Purpose/Necessity	To upgrade connectivity core infrastructure to support failover of critical systems between two data centers.
11-7	User Requested Projects	Description/Location	Small Project Capital Contingency
		Purpose/Necessity	Contingency funds allocated for unplanned small capital projects

Purchase of Data Processing Equipment

11-8	HPE Storage Area Network (SAN) Replacement/Expansion	Description/Location	Storage Area Network Replacement
		Purpose/Necessity	To replace three (3) 9-year-old Storage Area Network (SAN) arrays at two data centers. These arrays consist of about 1.9 Peta Bytes (PB) of data which host data and virtual server environments.
11-9	Field Use Laptop Replacements	Description/Location	Field Use Laptop Replacements
		Purpose/Necessity	The current CF31s have been in production for 5 years and the extended warranty will expire in 2023. These are the Crew reporting Toughbooks.
11-10	AI Project (carryover)	Description/Location	Artificial Intelligence Project
		Purpose/Necessity	The implementation of artificial intelligence software with advanced search capabilities is needed to improve decision making by using data mining to quickly convert data to useful information with an augmented digital assistant.
11-11	Storage Area Network for Backup Systems	Description/Location	Backup Systems Expansion
		Purpose/Necessity	Add additional storage to backup systems for physical and virtual onsite backups with replication between data centers.
11-12	DNS/DHCP System Replacement	Description/Location	Virtual Server Infrastructure
		Purpose/Necessity	Add additional server blade capacity to existing farm which will increase capacity for up to 1000 virtual servers running across 2 data centers.
11-13	Annual Network Upgrades- New	Description/Location	Annual Network Upgrade
		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.
11-14	Annual New/Replacement Servers New	Description/Location	Annual New/Replacement Servers
		Purpose/Necessity	Purchase or replace existing servers which have reached end-of-life and will no longer be supported by the manufacturer.
11-15	Project Portfolio Management Software (Carryover)	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.

ELECTRIC DIVISION

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<b>NOTES FOR PAGE 11-CAPITAL EXPENDITURES BUDGET (General Plant Continued)</b>			
<b>11-16</b>	<b>Work Center Wireless (outdoor) - Carryover</b>	<b>Description/Location</b>	Work Center Wireless (outdoor)
		<b>Purpose/Necessity</b>	To expand MLGW's wireless outdoor network at North, South, Hickory Hill and Brunswick service centers.
<b>11-17</b>	<b>Network Access Control for End Points (Carryover)</b>	<b>Description/Location</b>	Network Access Control for End Points
		<b>Purpose/Necessity</b>	This system will provide continuous security monitoring and mitigation of devices that connect 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.
<b>11-18</b>	<b>Network Security Upgrades and Enhancements</b>	<b>Description/Location</b>	Network Security
		<b>Purpose/Necessity</b>	Increase network security by replacing or upgrading end-of-line equipment and adding new security equipment.
<b>11-19</b>	<b>Corporate Wireless Upgrade and Enhancements</b>	<b>Description/Location</b>	Wireless Networking
		<b>Purpose/Necessity</b>	Increase coverage area and reliability of the wireless network by adding new access points, replacing or upgrading end-of-life equipment.
<b>11-20</b>	<b>PC Equipment</b>	<b>Description/Location</b>	PC equipment (above \$5,000 unit cost) requested for various reasons
		<b>Purpose/Necessity</b>	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.
<b>11-21</b>	<b>Contingency Fund - General Plant</b>	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	

**NOTES FOR PAGE 12—INCOME & 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 and customer prepay industrial gas sales.

**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>Industrial Gas</b>	This account includes the cost of prepay industrial gas and transportation of this gas to be used for injection into the system for resale.
12-9	<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.
12-10	<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.
12-11	<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.
12-12	<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.
12-13	<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**

12-14	<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.
12-15	<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.
12-16	<b>Administrative and General Expense</b>	Please see Appendix 12-13.

**NOTES FOR PAGE 12-INCOME & EXPENSE COMPARISON (Continued)**

**Other Operating Expense**

12-17	<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.
12-18	<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
12-19	<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.
12-20	<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.
12-21	<b>Amortization of Legacy Meters</b>	This account includes amortization charges related to expenditures on meters.
12-22	<b>Amortization of Software</b>	This account includes amortization charges related to expenditures on software.

**Income**

12-23	<b>Operating Income</b>	Operating income is equal to operating revenue less total operating expense.
12-24	<b>Other Income</b>	This consists primarily of investment income and property rentals. It does not include any sales of electricity, gas or water. Includes revenue and expenses related to gas yard service.
12-25	<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**

12-26	<b>Interest Expense -Long Term Debt</b>	Bond interest payments due 06-01 and 12-01 per the bond debt schedules are funded in equal monthly installments.
12-27	<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.
12-28	<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>	
13-2	<b>Depreciation Charged to Operating Income</b>	
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 the equipment rate calculations.
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>	None budgeted.

**Applications of Funds**

13-8	<b>Capital Expenditures</b>	Please see Budget page 13.
13-9	<b>Costs of Removal and Other Charges to the Reserve for Depreciation</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 12-01 per the bond debt schedules are funded in equal monthly installments during 2023.

**NOTES FOR PAGE 14—CAPITAL EXPENDITURES BUDGET**

**Production System**

<b>14-1</b>	<b>LNG Processing Facilities</b>	LNG Processing Facilities- Purchase and installation of regeneration heating equipment, replacement of
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**Distribution System**

<b>14-2</b>	<b>Apartments</b>	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities located in a subdivision.
<b>14-3</b>	<b>Residential Service in S/D</b>	This budget category provides for the expenses incurred by the Gas Division for customer requests for service located in a subdivision.
<b>14-4</b>	<b>Residential Service Not in S/D</b>	This budget category provides for the expenses incurred by the Gas Division for customer requests for service not located in a subdivision.
<b>14-5</b>	<b>Residential S/D</b>	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities located in a subdivision.
<b>14-6</b>	<b>Land Purchase</b>	This budget category provides for the purchase of land rights that will be needed for Capital Budget Projects.
<b>14-7</b>	<b>General Power Service</b>	This budget category provides for the expenses incurred by the Gas Division for customer requests for new General Power Service.
<b>14-8</b>	<b>General Power S/D</b>	This budget category provides for the expenses incurred by the Gas Division for customer requests for new General Power Service located in a subdivision.
<b>14-9</b>	<b>Multiple-Unit General Power</b>	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.
<b>14-10</b>	<b>Relocate At Customer Request</b>	This budget category provides for the expenses incurred by the Gas Division for customer requests to relocate existing gas facilities.
<b>14-11</b>	<b>Purchase of Meters</b>	This budget category provides for the expenses incurred from buying new gas meters and reconditioning existing gas meters.
<b>14-12</b>	<b>Street Improvements</b>	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.
<b>14-13</b>	<b>New Gas Main</b>	This budget category provides for the expenses incurred for the installation of miscellaneous new gas mains and facilities.
<b>14-14</b>	<b>Gas Main/Service Repl (D.O.T.)</b>	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, requested by the TN Regulatory Authority to replace 330 miles and was completed in 2021. 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.
<b>14-15</b>	<b>Transmission Pipelines and Facilities</b>	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.
<b>14-16</b>	<b>Regulator Stations</b>	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.
<b>14-17</b>	<b>Gate Stations</b>	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.
<b>14-18</b>	<b>Planned Maintenance</b>	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.
<b>14-19</b>	<b>JT-Residential Service in S/D</b>	This budget category provides for the expenses incurred by the Gas Division for customer requests for gas facilities in a joint trench subdivision.

**Distribution System (Continued)**

<b>14-20</b>	<b>JT-Residential Service not in S/D</b>	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities in a joint trench subdivision.
<b>14-21</b>	<b>JT-Residential Service in S/D</b>	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities in a joint trench subdivision.
<b>14-22</b>	<b>JT-Apartments</b>	This budget category provides for the expenses incurred by the Gas Division for developer requests for gas facilities in a joint trench apartment development.
<b>14-23</b>	<b>Emergency Maintenance</b>	This budget line item provides for emergency repair work when leaks and cut facilities require immediate repair.
<b>14-24</b>	<b>Demolition</b>	No expenditures planned for the 2023 budget year.
<b>14-25</b>	<b>Contributions in Aid of Construction</b>	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 homes.

**NOTES FOR PAGE 14–CAPITAL EXPENDITURES BUDGET (Continued)**

**General Plant**

14-26	<b>Buildings and Structures</b>	Please see Appendix 16-3 through 17-3.
14-27	<b>Security Automation</b>	Please see Appendix 17-4.
14-28	<b>Purchase of Furniture &amp; Fixtures</b>	Please see Appendix 17-5
14-29	<b>Audiovisual</b>	Please see Appendix 17-6
14-30	<b>IS/IT Projects</b>	Please see Appendix 17-14.
14-31	<b>Fleet Capital Common Power Operated Equip</b>	Please see Appendix 16-5.
14-32	<b>Fleet Capital Common Transportation Equip</b>	Please see Appendix 16-6.
14-33	<b>Fleet Gas Power Operated Equipment</b>	Please see Appendix 16-7.
14-34	<b>Fleet Gas Transportation Equipment</b>	Please see Appendix 16-8.
14-35	<b>Automated Fueling Structure</b>	Please see Appendix 17-13.
14-36	<b>Tools &amp; Equipment</b>	Please see Appendix 17-7.
14-37	<b>Common Tools &amp; Equipment</b>	Please see Appendix 17-8.
14-38	<b>Contingency Funds</b>	Please see Appendix 17-15.
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	SP 97/09 TDOT Summer Avenue	Description/Location	Summer Avenue
		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	LL 09/02 Canada Rd, Re-Alignment, WO288164	Description/Location	Canada 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.
15-5	ML 21/04, Navy Rd, Phase2, Church - Veterans Pkwy, Preliminary Plans	Description/Location	Navy Rd., Phase 2 Church - Veterans Pkwy
		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	CP 16/16 Elvis Presley Middle Seg, WO288159	Description/Location	Elvis Presley Middle Seg, WO288159
		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.
15-7	Airways @ Ketchum, W8Q08492, not released	Description/Location	Airways @ Ketchum
		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	CP 05/15, Malone Rd, Holmes to Shelby	Description/Location	Holmes Rd to Shelby Drive
		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	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.
15-10	CP 16/07, S Germantown Rd, N of Nonconnah TI, WO662236, released	Description/Location	S. Germantown Rd. N of Nonconnah TI
		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	CP 18/09 Bethel Grove Sewer Ext	Description/Location	Bethel Grove Sewer Ext
		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	SP 18/03, Danny Thomas Corridor Signal Improvements, WO600982	Description/Location	Danny Thomas Corridor
		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.
15-13	CP 20/07 Mysen @ Karstad, WO666987	Description/Location	Mysen @ Karstad

**GAS DIVISION**

<b>NOTES FOR PAGE 15-CAPITAL EXPENDITURES BUDGET (Continued)</b>			
		<b>Purpose/Necessity</b>	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	BT 22/02, Easthill Subdivision - drainage, in design	<b>Description/Location</b>	Easthill Subdivision
		<b>Purpose/Necessity</b>	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	CV 22/02, S Main Ext - drainage, in design	<b>Description/Location</b>	South Main Ext drainage
		<b>Purpose/Necessity</b>	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.
15-16	CP 20/06, Laudeen at Randall drainage, Preliminary Plans	<b>Description/Location</b>	Laudeen at Randall
		<b>Purpose/Necessity</b>	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.
15-17	CP 20/03, Tchulahoma at Blue Bonnet, Preliminary Plans	<b>Description/Location</b>	Tchulahoma at Blue Bonnet
		<b>Purpose/Necessity</b>	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.
15-18	AP 22/01 Chester St Bridge, Preliminary Plans	<b>Description/Location</b>	Chester St Bridge
		<b>Purpose/Necessity</b>	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.
15-19	CV 21/03, Washington St, Main - Mt. Pleasant, Preliminary Plans	<b>Description/Location</b>	Washington St, Main - Mt. Pleasant
		<b>Purpose/Necessity</b>	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.
15-20	BT 22/01, Prosperity Subdivision - drainage, Preliminary Plans	<b>Description/Location</b>	Prosperity Subdivision
		<b>Purpose/Necessity</b>	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.
15-21	CP 20/02, Hanna/Naylor - drainage, Preliminary Plans	<b>Description/Location</b>	Hanna/Naylor
		<b>Purpose/Necessity</b>	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.
15-22	CP 20/05, Mickey to Millbranch - drainage, Preliminary Plans	<b>Description/Location</b>	Mickey to Millbranch
		<b>Purpose/Necessity</b>	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.
15-23	CV 22/09, Lillian Dr - drainage, Preliminary Plans	<b>Description/Location</b>	Lillian Drive
		<b>Purpose/Necessity</b>	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)**

**New Gas Main**

15-24	System Improvement Projections	Description/Location	System Improvement Projections
		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.

**Gas Main/Service Repl (D.O.T.)**

15-25	Steel Tap Rep Replacement	Description/Location	Location(s) vary due to system prioritization needs and City paving schedules.
		Purpose/Necessity	This budget category provides for replacement of steel couplings on steel service taps that requires excessive maintenance and has a history of leaking.
15-26	Distribution Integrity Management Program (DIMP)	Description/Location	Locations vary due to system needs.
		Purpose/Necessity	Planned work to address risks to the distribution system, undocumented mains.
15-27	Unplanned Distribution Work	Description/Location	Locations vary due to system needs.
		Purpose/Necessity	This budget category provides for the expenses incurred from replacing steel services, valves or mains with new PE services, valves and mains due to a CP issue that must be addressed in that calendar year.
15-28	Corrosion Control	Description/Location	Locations vary due to system needs.
		Purpose/Necessity	This budget category provides for the expenses incurred from replacing steel services, valves or mains with new PE services, valves and mains due to a CP issue that must be addressed in that calendar year.

**Transmission Pipelines and Facilities**

15-29	18" XXHP Pipeline Replacement @ Covington Pike & LNRR	Description/Location	18" XXHP Pipeline Replacement @ Covington Pike & LNRR
		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.
15-30	Transmission Integrity Management Program (TIMP)	Description/Location	TIMP Initiative
		Purpose/Necessity	Pressure tests and other work on transmission piping required by PHMSA to confirm MAOP, Replace sections of transmission pipeline in MCA, Install pig launchers and receivers.

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

**General Plant**

**Distribution System - Major Projects (Continued)**

**Regulator Station Replacement**

16-1	Regulator Station Replacement	Description/Location	Regulator station replacement
		Purpose/Necessity	Regulator stations are used to reduce the pressure of the gas to the appropriate operating pressure for each system

**Gate Station**

16-2	Gate Station Work	Description/Location	Gas Station Work
		Purpose/Necessity	Gas Station Work

**General Plant (Continued)**

**Buildings and Structures**

**South Service Center**

16-3	Replace 6 Garage Overhead Doors	Description/Location	South Service Center
		Purpose/Necessity	Replacing 6 garage overhead doors

**North Service Center**

16-4	Building #8 ( Re-cover over Stores 160,668 square foot	Description/Location	North Service Center
		Purpose/Necessity	Security Automation
16-5	Building #8 (Re-cover over office 24,000 square foot roof)	Description/Location	North Service Center
		Purpose/Necessity	This project was recommended to store Building Services and Grounds' chemicals used for facility maintenance activities.
16-6	Concrete Pad for Transformers	Description/Location	North Service Center
		Purpose/Necessity	Concrete Pad needed to relocate transformers to the new property north of the Choctaw facility. This will open up space for the Heavy Equipment building vehicle parking. This is needed to accommodate the Central Shops move to the North Service Center.
16-7	Asphalt Paving & Concrete Slabs/ Drives - Phase 3	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.
16-8	Replace 8 Garage Overhead Doors	Description/Location	North Service Center
		Purpose/Necessity	Replacing 8 garage overhead doors
16-9	Bucket Truck & Testing Pad	Description/Location	North Service Center
		Purpose/Necessity	New testing pad to be constructed at the North Service Center to replace the existing one located at Central Shops.
16-10	Building Services and Grounds Service Building	Description/Location	North Service Center
		Purpose/Necessity	All projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.

**Brunswick Service Center**

16-11	Paving Upgrade - Phase 2	Description/Location	Brunswick Service Center
		Purpose/Necessity	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.

**Hickory Hill Service Center**

16-12	Paving Upgrade - Phase 2 - Employee Parking Lot	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.

**GAS DIVISION**

<b>NOTES FOR PAGE 17-CAPITAL EXPENDITURES BUDGET</b>			
<b>Choctaw</b>			
17-1	<b>Security Fencing around Choctaw and new property</b>	<b>Description/Location</b>	Choctaw
		<b>Purpose/Necessity</b>	Security Fencing around Choctaw and new property
17-2	<b>Replace HVAC Roof-Top Units (7)</b>	<b>Description/Location</b>	Choctaw
		<b>Purpose/Necessity</b>	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
17-3	<b>Replace Control House Roof</b>	<b>Description/Location</b>	Choctaw
		<b>Purpose/Necessity</b>	All roof replacement projects are targeted in the Facilities master plan based on expected life expectancy and existing maintenance issues.
17-4	<b>Security Automation</b>	<b>Description/Location</b>	Choctaw
		<b>Purpose/Necessity</b>	Security Automation
17-5	<b>Furniture &amp; Fixtures</b>	<b>Description/Location</b>	Division furniture and fixtures used for work in and around Shelby County.
		<b>Purpose/Necessity</b>	To purchase approved budget items, in order to provide equipment for employees to complete job assignments. Replacements are evaluated based on age, actual usage, projected usage, repair cost, frequency and effectiveness to meet areas' needs. Additions are evaluated based on justification request and proper approval.
17-6			
	<b>Audiovisual</b>	<b>Description/Location</b> <b>Purpose/Necessity</b>	Division audiovisual equipment used for work in and around Shelby County.  To purchase approved budget items, in order to provide equipment for employees to complete job assignments. Replacements are evaluated based on age, actual usage, projected usage, repair cost, frequency and effectiveness to meet areas' needs. Additions are evaluated based on justification request and proper approval.
17-7	<b>Tools &amp; Equipment</b>	<b>Description/Location</b>	Division tools/equipment used for work in and around Shelby County.
		<b>Purpose/Necessity</b>	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.
17-8	<b>Tools &amp; Equipment Common</b>	<b>Description/Location</b>	Division tools/equipment used for work in and around Shelby County.
		<b>Purpose/Necessity</b>	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.
17-9	<b>Fleet Capital Common 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 employees 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.
17-10	<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 employees 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.

**GAS DIVISION**

<b>NOTES FOR PAGE 17-CAPITAL EXPENDITURES BUDGET (Continued)</b>			
17-11	<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 employees 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.
17-12	<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 employees 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.
17-13	<b>Gas - Automated Fueling Structure</b>	<b>Description/Location</b>	Automated fueling structure
		<b>Purpose/Necessity</b>	Automated fueling structure
<b>IS/IT Projects</b>			
17-14	<b>ETRM Phase 2 Project</b>	<b>Description/Location</b>	Energy Trading and Risk Management
		<b>Purpose/Necessity</b>	Replace SCADA/Cares consoles
17-15	<b>Contingency Fund - General Plant</b>	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	

**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 plus and additional 2,100,000 for the budget year..
<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 Legacy Meters</b>	This account includes amortization charges related to expenditures on meters.

**Income**

<b>18-17</b>	<b>Operating Income</b>	Operating income is equal to operating revenue less total operating expense.
<b>18-18</b>	<b>Other Income</b>	This consists primarily of interest and investment income. It does not include any sales of electricity, gas or water.
<b>18-19</b>	<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**

<b>18-20</b>	<b>Interest Expense – Existing Long-Term Debt</b>	Bond interest payments due 06-01 and 12-01 per the bond debt schedules are funded in equal monthly installments.
<b>18-21</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>18-22</b>	<b>Contributions in Aid of Construction</b>	Please see Appendix 18-22.

**NOTES FOR PAGE 19—INCOME & EXPENSE COMPARISON**

**Source of Funds**

<b>19-1</b>	<b>Change in Net Position</b>	
<b>19-2</b>	<b>Depreciation Charged to Operating Income</b>	
<b>19-3</b>	<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 the equipment rate calculations.
<b>19-4</b>	<b>Amortization of Legacy Meters</b>	Non-cash expense related to employee pension expenses related to meter expenditures.
<b>19-5</b>	<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.
<b>19-6</b>	<b>Debt Issuance</b>	Expected debt issuance in the Water Division for the budget year.

**Application of Funds**

<b>19-7</b>	<b>Capital Expenditures</b>	Please see page 19.
<b>19-8</b>	<b>Costs of Removal and Other Charges to the Reserve for Depreciation</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.
<b>19-9</b>	<b>Retirement of Long-Term Debt</b>	Bond principal amounts due 12-01 per the bond debt schedules are funded in equal monthly installments during.

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

**Production System**

20-1	<b>Pumping Stations</b>	Please see Appendix 21-1 to 22-10.
20-2	<b>Overhead Storage Tanks</b>	No expenditures planned for the 2023 budget year.
20-3	<b>Underground Storage Reservoirs</b>	
20-4	<b>Production Wells</b>	
20-5	<b>Monitoring Wells</b>	No expenditures planned for the 2023 budget year.
20-6	<b>Land Purchase</b>	
20-7	<b>Operations Maintenance</b>	
20-8	<b>Contingency Fund - Production</b>	
20-9	<b>Buildings and Structures - Production System</b>	

**Distribution System**

20-10	<b>Residential Service in S/D</b>	This budget category provides for the expenses incurred by the Water Division for customer requests for service located in a subdivision.
20-11	<b>Residential Service not in S/D</b>	This budget category provides for the expenses incurred by the Water Division for customer requests for service not located in a subdivision.
20-12	<b>Residential S/D</b>	This budget category provides for the expenses incurred by the Water Division for developer requests for Water facilities located in a subdivision.
20-13	<b>Apartments</b>	This budget category provides for the expenses incurred by the Water Division for developer requests for Water facilities for new apartment developments.
20-14	<b>General Power Service</b>	This budget category provides for the expenses incurred by the Water Division for customer requests for new General Power Service.
20-15	<b>Relocate At Customer Request</b>	This budget category provides for the expenses incurred to relocate at the customer's request.
20-16	<b>Street Improvements</b>	This budget category provides for the expenses incurred when City, State and Federal Street Improvements dictate that facilities must be relocated.
20-17	<b>New Water Main</b>	This budget category provides for the expenses incurred for the installation of miscellaneous new water mains and facilities.
20-18	<b>Lead Service Replacement</b>	Replace lead services with copper at known locations throughout Shelby County.
20-19	<b>Storm Restoration</b>	None budgeted for the 2023 Budget Year.
20-20	<b>Purchase of Meters</b>	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.
20-21	<b>Planned Maintenance</b>	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.
20-22	<b>Booster Stations</b>	This budget category is used to boost constant supply.
20-23	<b>Emergency Maintenance</b>	This budget line item provides for emergency repair work when leaks and cut facilities require immediate repair.
20-24	<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.

**General Plant**

20-25	<b>Buildings and Structures</b>	None budgeted for the 2023 Budget Year.
20-26	<b>Security Automation</b>	Please see Appendix 23-16.
20-27	<b>Fleet Capital Power Operated Equip</b>	Please see Appendix 23-17.
20-28	<b>Fleet Capital Water Transportation Equip</b>	Please see Appendix 23-18.
20-29	<b>IS/IT Projects Water</b>	Please see Appendix 23-15.
20-30	<b>Lab Equipment</b>	None budgeted for the 2023 Budget Year.
20-31	<b>Contingency Fund</b>	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year. See Appendix 23-19.
20-32	<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 21—CAPITAL EXPENDITURES BUDGET**

**Production System**

**Pumping Stations**

**Allen Pumping Station**

21-1	Station Rehabilitation (CO)	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.
21-2	Station Rehabilitation (New Allen)	Description/Location	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components at Allen Pumping Station
		Purpose/Necessity	The existing infrastructure can no longer be operated safely or reliably.
21-3	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
21-4	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.
21-5	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.

**Davis Pumping Station**

21-6	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.
21-7	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**

21-8	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.
21-9	Station Rehabilitation (CO)	Description/Location	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components. Lichterman Pumping Station
		Purpose/Necessity	The existing infrastructure can no longer be operated safely or reliably.

**LNG Pumping Station**

21-10	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.
21-11	Install 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.
21-12	Station Rehabilitation	Description/Location	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components. LNG Pumping Station
		Purpose/Necessity	The existing infrastructure can no longer be operated safely or reliably.

**NOTES FOR PAGE 21—CAPITAL EXPENDITURES BUDGET (Continued)**

**Pumping Stations (Continued)**

**Mallory Pumping Station**

21-13	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.
21-14	Medium Voltage Breaker & Switchgear Replacements	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
21-15	Generator Replacement (CO)	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.
21-16	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.

**McCord Pumping Station**

21-17	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.
21-18	Install 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.
21-19	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.
21-20	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.

**Morton Pumping Station**

21-21	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.
21-22	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.
21-23	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.

**NOTES FOR PAGE 22-CAPITAL EXPENDITURES BUDGET**

**Pumping Stations (Continued)**

**Palmer Pumping Station**

22-1	<b>Engineer Distributed Process Control System Replacement</b>	<b>Description/Location</b>	Design, Construction Administration and Integration needed to replace the existing distributed process control system.
		<b>Purpose/Necessity</b>	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.
22-2	<b>Install Distributed Process Control System Replacement</b>	<b>Description/Location</b>	Install Distributed Process Control System Replacement.
		<b>Purpose/Necessity</b>	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.
22-3	<b>Station Rehabilitation</b>	<b>Description/Location</b>	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components. Allen Pumping Station
		<b>Purpose/Necessity</b>	The existing infrastructure can no longer be operated safely or reliably.

**Shaw Pumping Station**

22-4	<b>VFD, Motor, Transformer Replacements</b>	<b>Description/Location</b>	Design, Construction Administration and Integration needed to replace the existing distributed process control system.
		<b>Purpose/Necessity</b>	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.
22-5	<b>Station Rehabilitation (CO)</b>	<b>Description/Location</b>	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components at Davis Pumping Station
		<b>Purpose/Necessity</b>	The existing infrastructure can no longer be operated safely or reliably.

**Sheehan Pumping Station**

22-6	<b>VFD, Motor, Transformer Replacements</b>	<b>Description/Location</b>	Design, Construction Administration and Integration needed to replace high service pump drive equipment.
		<b>Purpose/Necessity</b>	The existing VFD's chronically overheat and replacement parts are unavailable when the VFD's fail.
22-7	<b>Medium Voltage Breaker &amp; Switchgear Replacements</b>	<b>Description/Location</b>	Design, purchase and installation of the 12kV and 5 kV circuit breakers/Switchgear at Allen Pumping Station
		<b>Purpose/Necessity</b>	Parts for the existing 12kV and 5 kV Circuit Breakers are unavailable and there are safety concerns related to the existing breakers
22-8	<b>Station Rehabilitation</b>	<b>Description/Location</b>	The purchase and installation of replacement valves, piping, hardware, meters, actuators, etc.... Rehabilitation of concrete structural components. Allen Pumping Station
		<b>Purpose/Necessity</b>	The existing infrastructure can no longer be operated safely or reliably.

**Miscellaneous Pumping Facilities**

22-9	<b>Water Operations Capital Items (CO)</b>	<b>Description/Location</b>	This item is to account for unplanned Capital Items. / As-needed
		<b>Purpose/Necessity</b>	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.
22-10	<b>Engineering Services Contract (CO)</b>	<b>Description/Location</b>	Engineering Consultants on an "as-needed" basis. / As-needed.
		<b>Purpose/Necessity</b>	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.

**WATER DIVISION**

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**Underground Storage Reservoirs**

**Sheehan Pumping Station**

22-11	Engineer Wash Recovery Basin Replacement	Description/Location	Construction of WWRB at Sheehan 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**

22-12	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.

**Sheehan Pumping Station**

22-13	Construct/Replace Well	Description/Location	Construction of a large water production well. Sheehan Pumping Station
		Purpose/Necessity	A number of the Sheehan wells need to be replaced.
22-14	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.
22-15	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**

22-16	Operations Maintenance	Description/Location	maintenance necessary for the continuation of normal operations
		Purpose/Necessity	maintenance necessary for the continuation of normal operations

**Land Purchase**

22-17	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.

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

**Buildings and Structures**

**McCord Pumping Station**

23-1	Replace Site Paving	Description/Location	McCord Pumping Station
		Purpose/Necessity	This project is needed to replace the paving. The existing paving is past it's life expectancy and needs to be repaired.

**Davis Pumping Station**

23-2	Replace roof - 14,100 sf	Description/Location	Davis Pumping Station
		Purpose/Necessity	This project is needed to replace the Main Pump building roof. The existing roof system is past it's life expectancy and is getting frequent leak repair requests.

**Sheahan Pumping Station**

23-3	Repave Drives	Description/Location	Sheahan Pumping Station
		Purpose/Necessity	This project is needed to repave drives. The existing pavement is past it's life expectancy and is getting frequent requests.

**Contingency Fund**

23-4	Contingency Funds	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	
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**Distribution System**

23-5	Collecting Main Installation	Description/Location	Various locations
		Purpose/Necessity	The ties bring water from the aquifer to the plant.
23-6	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.
		Purpose/Necessity	Older cast iron mains in older parts of town sometimes break several times and it is more feasible to replace the main.
23-7	Large Main Extensions	Description/Location	Large Main Extensions
		Purpose/Necessity	Provides more water to parts of Shelby County were there is a need or future need to more water.
23-8	Miscellaneous Projects - Reimbursable	Description/Location	This line item covers former SCBPU projects aimed at improving the Distribution System in former SCBPU areas of the county. These projects mostly center around improvements in the Shelby Forest area.
		Purpose/Necessity	This line item covers former SCBPU projects aimed at improving the Distribution System in former SCBPU areas of the county.
23-9	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
23-10	Minor System Improvements	Description/Location	Minor System Improvements to Water Distribution System
		Purpose/Necessity	Minor System Improvements to Water Distribution System.

**Street Improvements**

23-11	City of Arlington 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.
23-12	City of Lakeland Projects	Description/Location	These are street improvement projects done by the City of Lakeland 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.
23-13	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.
23-14	TDOT Projects	Description/Location	These are street improvement projects done by TDOT 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.

**Lead Replacement**

23-15	Lead Replacement	Description/Location	Lead Replacement
		Purpose/Necessity	Lead Replacement

**NOTES FOR PAGE 24–CAPITAL EXPENDITURES BUDGET**

**General Plant**

**IS/IT Project**

<b>24-1</b>	<b>Security Automation</b>	<b>Description/Location</b>	Various locations
		<b>Purpose/Necessity</b>	Install card readers on control house doors, install a CCTV system, install fence alarms and various security upgrades throughout the division.
<b>24-2</b>	<b>Fleet Capital 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, repair cost and frequency, parts availability, and effectiveness to meet area's needs. Additions are evaluated based on justification request and proper approval.
<b>24-3</b>	<b>Fleet Capital 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, repair cost and frequency, parts availability, and effectiveness to meet area's needs. Additions are evaluated based on justification request and proper approval.
<b>24-4</b>	<b>Contingency Funds – General Plant</b>	This is an estimated budget amount to cover unforeseen emergency items that may arise in the current year.	

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## 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.

**ERC:** Emergency Response Center.

## GLOSSARY

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**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.

**LC:** Suffix for connector type.

**LNG:** Liquefied Natural Gas.

## GLOSSARY

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**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

**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.

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