

STATE FACILITY UTILITY MANAGEMENT



# Utility Data Management Report FY2024



THE LODGE AT PICKWICK LANDING  
STATE PARK, COUNCE, TN



# Table of Contents

This report regarding State facility utility usage, cost, and rate data for State Fiscal Year (FY) 2024, was prepared by the Tennessee Department of Environment and Conservation's Office of Energy Programs State Facility Utility Management team in accordance with Tenn. Code Ann. § 4-3-1012(3).

## Executive Summary

<b>ABOUT TDEC'S SFUM TEAM</b>	3
<b>REPORT OBJECTIVES</b>	3

## UDM Platform

<b>ABOUT THE UDM PLATFORM</b>	4
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## Cost and Usage Data

<b>OVERALL STATE PORTFOLIO AND OBSERVATIONS</b>	5
<b>FY2022-FY2024 COMPARISON</b>	6
<b>FY2022-FY2024 UTILITY USAGE BY ORGANIZATIONAL GROUP</b>	
General Government	7
LGIs	9
TBR	11
UT System	13

## UDM in Action

<b>EXAMPLES OF ENERGY SPIKES, WATER LEAK DETECTION, AND TECHNICAL ASSISTANCE</b>	15
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## Current Offerings

<b>ACCESSING THE UDM PLATFORM</b>	16
<b>ENERGY LIAISON PROGRAM (ELP)</b>	16

## Additional Info

### APPENDICES

A – Utility Usage Calculations	17
B – List of General Government Agencies	17
C – List of LGIs	17
D – List of TBR Community Colleges	18
E – List of TBR TCATs	18
F – List of the UT System Facilities	18
G – Lists of Tables and Figures	19

<b>ACKNOWLEDGMENTS</b>	20
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# Executive Summary

## About TDEC's SFUM Team

Residing in the **Office of Energy Programs (OEP)** within the **Tennessee Department of Environment and Conservation (TDEC)**, the **State Facility Utility Management (SFUM)** team provides actionable insights to State General Government Agencies and Higher Education Institutions.

SFUM was formed in January 2017 following the issuance of Executive Order 63, which transferred the building management statutory responsibilities for State-owned and -managed properties from the Department of General Services to TDEC (Tenn. Code Ann. §§ 4-3-1012 and 4-3-1017-1019). SFUM has the responsibility to analyze and report on the State's aggregate annual utility costs and usage (Tenn. Code Ann. § 4-3-1012(3)). Utilizing the **utility data management (UDM)** platform, EnergyCap, SFUM collects and analyzes data from utility bills for State-owned and -managed facilities to address this requirement.

## Report Objectives

This report communicates the State's utility cost and usage and underscores the capabilities and benefits of the UDM platform, which has simplified data collection, entry, and analysis for State General Government Agencies and Higher Education Institutions.

This report compares utility usage data for State FY2022, FY2023, and FY2024 by organizational group and the six types of utility commodities captured in the UDM platform for the State.

### UTILITY COMMODITIES



**CHILLED  
WATER**



**ELECTRIC**



**NATURAL  
GAS**



**PROPANE**



**STEAM**



**WATER/  
SEWER**

# About the UDM Platform

The UDM platform is a central repository for past and current utility cost and usage data<sup>1</sup> of approximately 8,800 State-owned and -managed facilities. It is predominantly used for utility tracking, reporting, and benchmarking for State General Government Agencies and Higher Education Institutions, as well as bill payment for General Government Agencies.<sup>2</sup>



LAUNCHED IN

**2019**

SERVING

**74**

**General  
Government  
Agencies and  
Higher Education  
Institutions**



DATA REPRESENTING



**9,100+**  
accounts



**10,800+**  
utility meters



**114M+**  
square feet

The SFUM team relies on the State's General Government Agencies, Higher Education Institutions, and utility providers to inform and provide updates regarding new or unused buildings, meters, or accounts. These updates ensure that cost and consumption data are as accurate as possible to maximize the benefits of the UDM reporting.<sup>3</sup> Please notify SFUM of new or unused meters or accounts for your organization by contacting [TDEC.SFUM@tn.gov](mailto:TDEC.SFUM@tn.gov).

<sup>1</sup> Cost and usage data for most utilities are predominantly captured monthly. Some utility bills for Higher Education Institutions are captured on a quarterly or other basis.

<sup>2</sup> For FY2024, the UDM platform contains utility bill data for 99% of the utility meters that, as of March 30, 2025, have been identified for General Government Agencies and Higher Education Institutions.

<sup>3</sup> Variations in data may be due to delayed billing corrections or account updates made by the utility vendor, changes in a duplicate billing process that result in delayed bill obtainment and uploads, or delayed notifications of new or retired accounts, which will be retroactively applied to the platform, leading to slight variances in the usage or cost values.

# Cost and Usage Data

## Overall State Portfolio and Observations

TABLE 3.1 | FY2024 Share of Portfolio by Organizational Group (% of square feet)<sup>4</sup>

GENERAL GOVERNMENT	37%	24 Agencies
LOCALLY GOVERNED INSTITUTIONS (LGIs)	25%	6 Locally Governed Institutions (LGIs)
TENNESSEE BOARD OF REGENTS (TBR)	12%	24 Tennessee Colleges of Applied Technology (TCATs) 13 Community Colleges
UNIVERSITY OF TENNESSEE (UT) SYSTEM	26%	7 Campuses and Institutes

<sup>4</sup>See Appendices for a full asset portfolio list.

### TOTAL UTILITY COSTS FOR FY2024

**\$204,308,319**

spent on energy and water utilities across all State-owned and -managed facilities

↓ **6.5%** decrease (-\$14,187,322) in State utility costs compared to FY2023

↓ **0.6%** decrease (-\$1,287,641) in State utility costs compared to FY2022

The decrease is primarily attributed to lower cost and usage for natural gas.

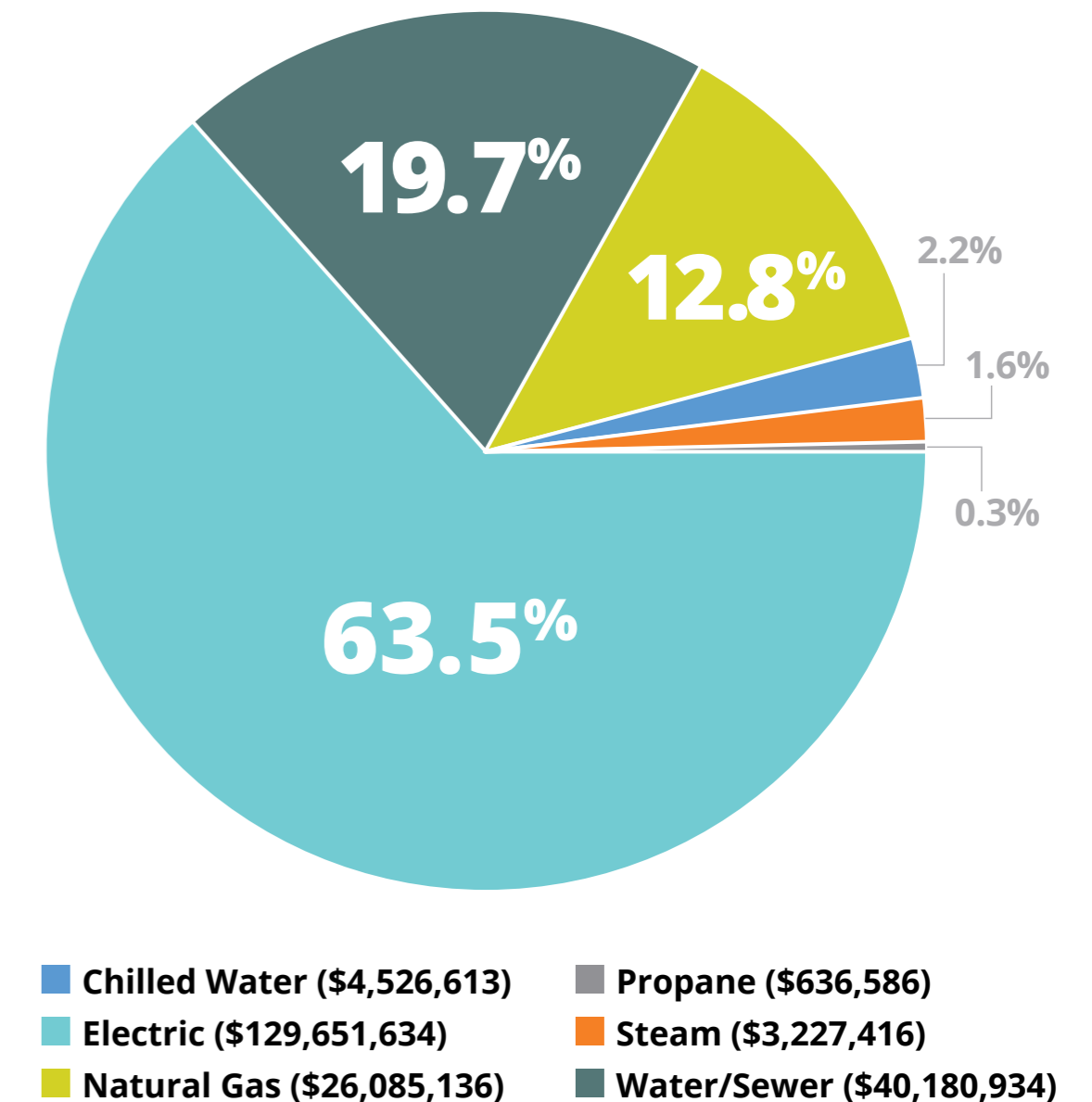
### NATURAL GAS FROM FY2022-FY2024

↓ **28.5%** decrease in costs

↓ **5.9%** decrease in usage



FIGURE 3.1 | FY2024 All State Utility Cost Profile by Commodity (% of total cost)



## FY2022-FY2024 Comparison

TABLE 3.2 | Change in FY2022-FY2024 in Overall Cost and Overall Usage by Utility

UTILITY COMMODITY	USAGE CHANGE (%)	TOTAL USAGE CHANGE	COST CHANGE (%)	TOTAL COST CHANGE (\$)
CHILLED WATER	-5.3%	-990,219 ton-hr	3.2%	\$138,838
ELECTRIC	-0.3%	-3,108,159 kWh	4.6%	\$5,736,105
NATURAL GAS	-5.9%	-4,284,640 Therms	-28.5%	-\$10,384,799
PROPANE	-0.5%	-4,197 Therms	-19.8%	-\$157,202
STEAM	3.1%	5,666 Mlb	-8.5%	-\$300,783
WATER / SEWER	6.5%	201,623 kgal	10.1%	\$3,680,199

**TOTAL = -\$1,287,641**

### KEY TAKEAWAYS



**Natural gas costs** decreased significantly, reflecting a stabilized market price, which, along with a slight decrease in usage, led to lower utility costs.



Due to lower natural gas and coal costs, the Tennessee Valley Authority (TVA) reduced Fuel Cost Adjustments to Local Power Companies, who passed savings to customers, including the State. This contributed to lower **electricity costs**; however, this was offset by a 4.5% wholesale base rate increase effective August 2023.



**Propane use** decreased slightly, which along with lower transportation costs and market prices, lowered the overall propane costs.



**Water/Sewer use** increased, which, along with increased vendor rates, led overall costs to increase.

Across all facilities it owns and operates, the State's overall utility costs decreased by 0.6% from FY2022 to FY2024.

FY2024 OVERALL UTILITY COSTS

**\$204,308,319**

FY2022 OVERALL UTILITY COSTS

**\$205,595,961**

Overall utility costs decreased despite State-owned and -operated facilities having increased in footprint.

# General Government

TOTAL UTILITY COSTS FOR FY2024

**\$75,634,316**



Electric power  
**62.8%**

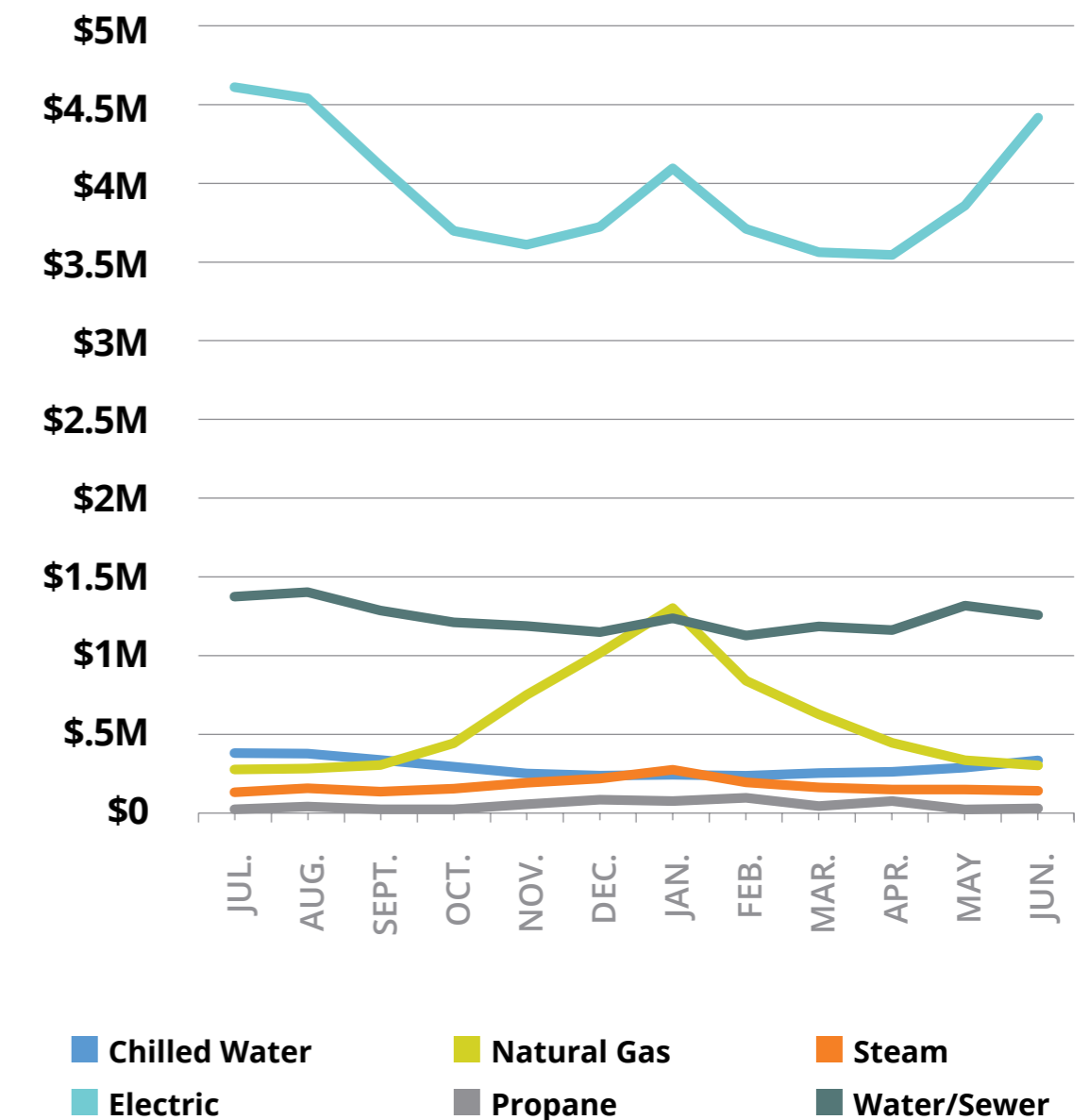


Water/sewer  
**19.7%**

TABLE 3.3 | FY2024 Utility Cost by Commodity, General Government

COMMODITY	USAGE	UOM	COST	PERCENT
CHILLED WATER	12,732,386	ton-hr	\$3,518,337	4.7%
ELECTRIC	419,220,465	kWh	\$47,507,356	62.8%
NATURAL GAS	17,142,288	Therms	\$6,963,990	9.2%
PROPANE	889,936	Therms	\$625,649	0.8%
STEAM	93,087	Mlb	\$2,097,489	2.8%
WATER/SEWER	1,227,709	kgal	\$14,921,496	19.7%

FIGURE 3.2 | FY2024 Commodity Cost per Month, General Government



# General Government

## TOTAL UTILITY COST PER YEAR COMPARISON

FY2024



FY2023

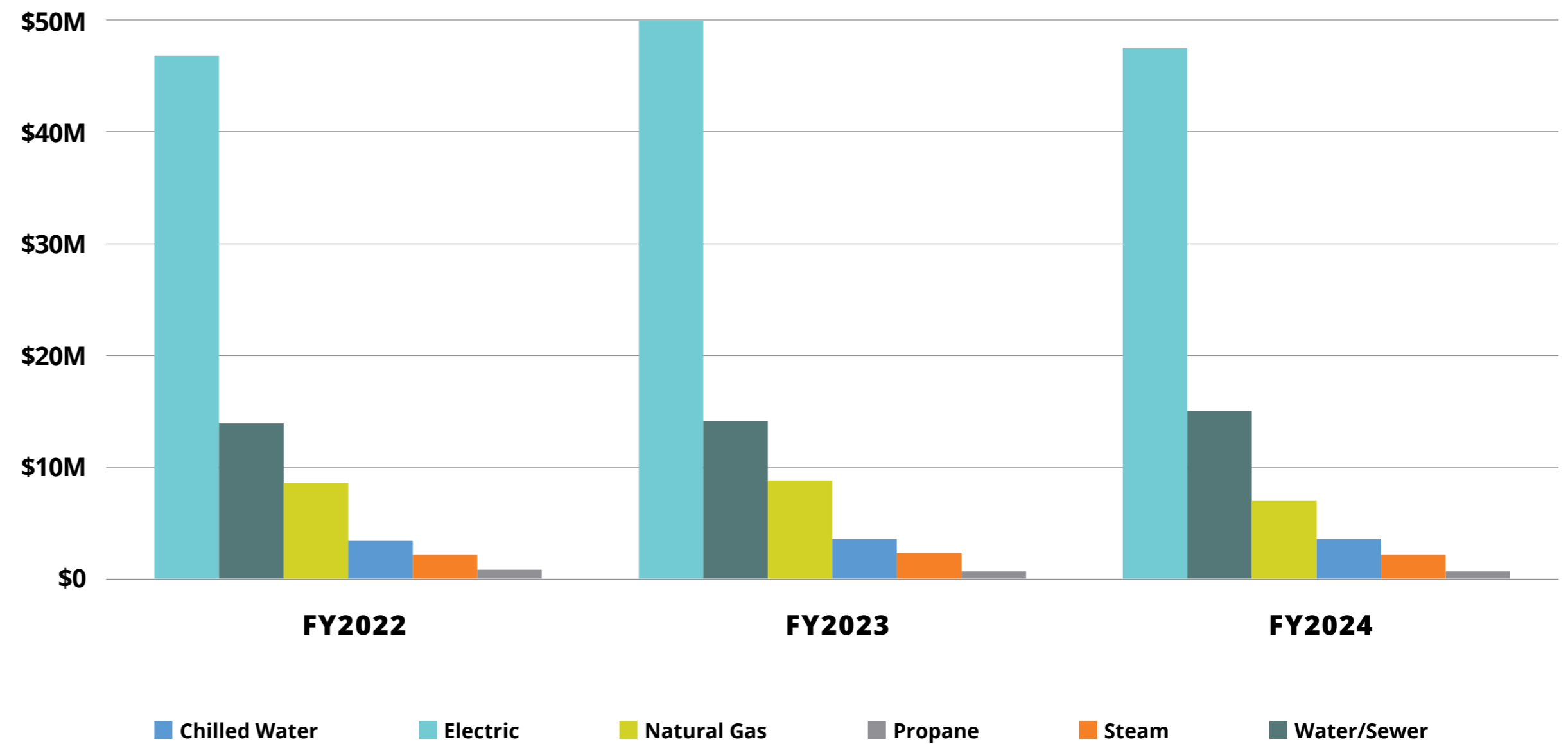


FY2022



WANT MORE DETAILED DATA? EMAIL US >>

FIGURE 3.3 | Commodity Cost per Year Comparison, General Government



# LGIs

TOTAL UTILITY COSTS FOR FY2024

**\$43,560,846**



Electric power  
**59.8%**

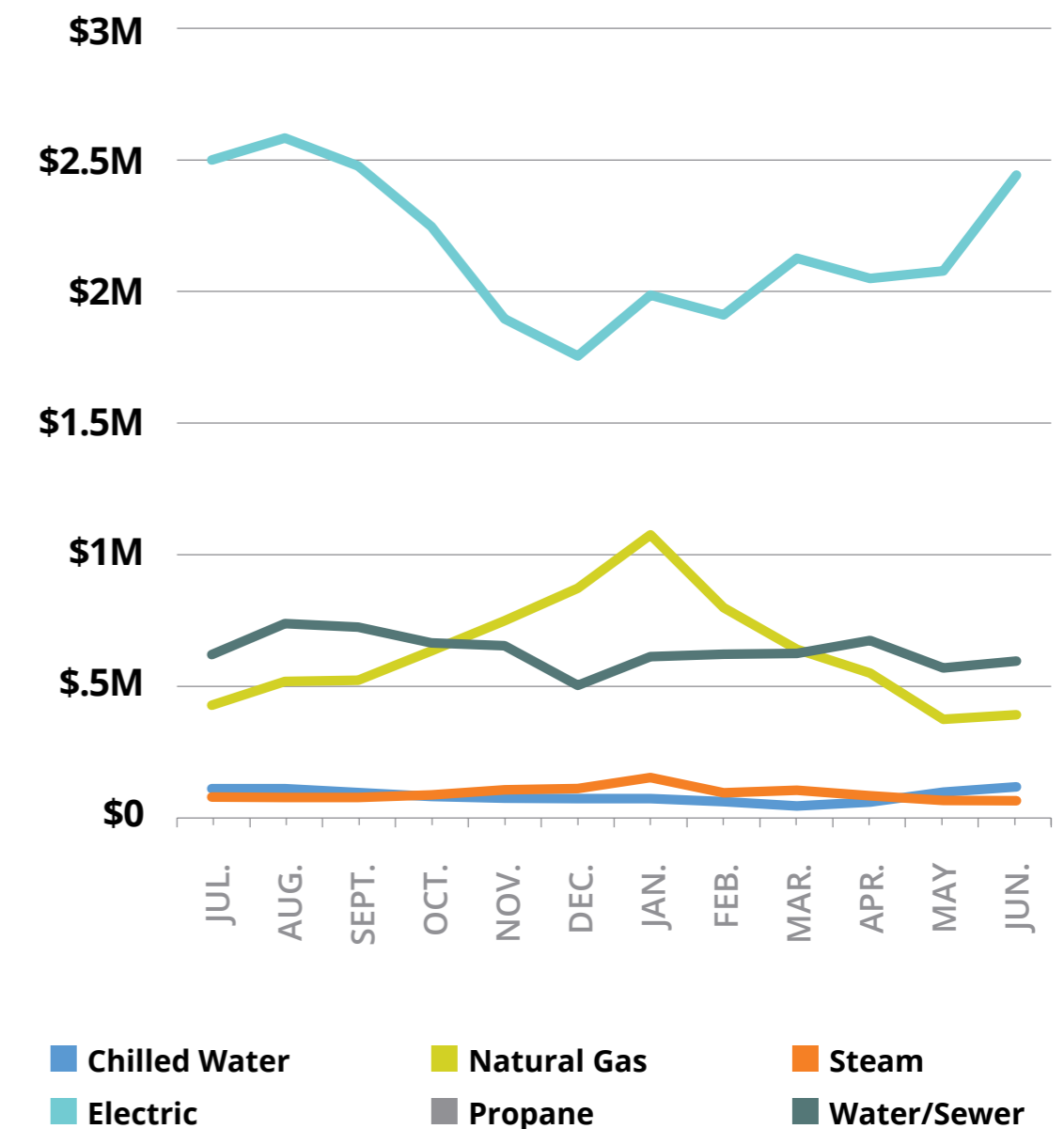


Water/sewer  
**17.9%**

TABLE 3.4 | FY2024 Utility Cost by Commodity, LGIs

COMMODITY	USAGE	UOM	COST	PERCENT
CHILLED WATER	5,020,070	ton-hr	\$1,008,275	2.3%
ELECTRIC	247,233,755	kWh	\$26,062,228	59.8%
NATURAL GAS	25,547,421	Therms	\$7,575,733	17.4%
PROPANE	6,695	Therms	\$10,837	0.0%
STEAM	94,551	Mlb	\$1,129,927	2.6%
WATER/SEWER	839,824	kgal	\$7,773,845	17.9%

FIGURE 3.4 | FY2024 Commodity Cost per Month, LGIs



# LGIs

## TOTAL UTILITY COST PER YEAR COMPARISON

FY2024



FY2023

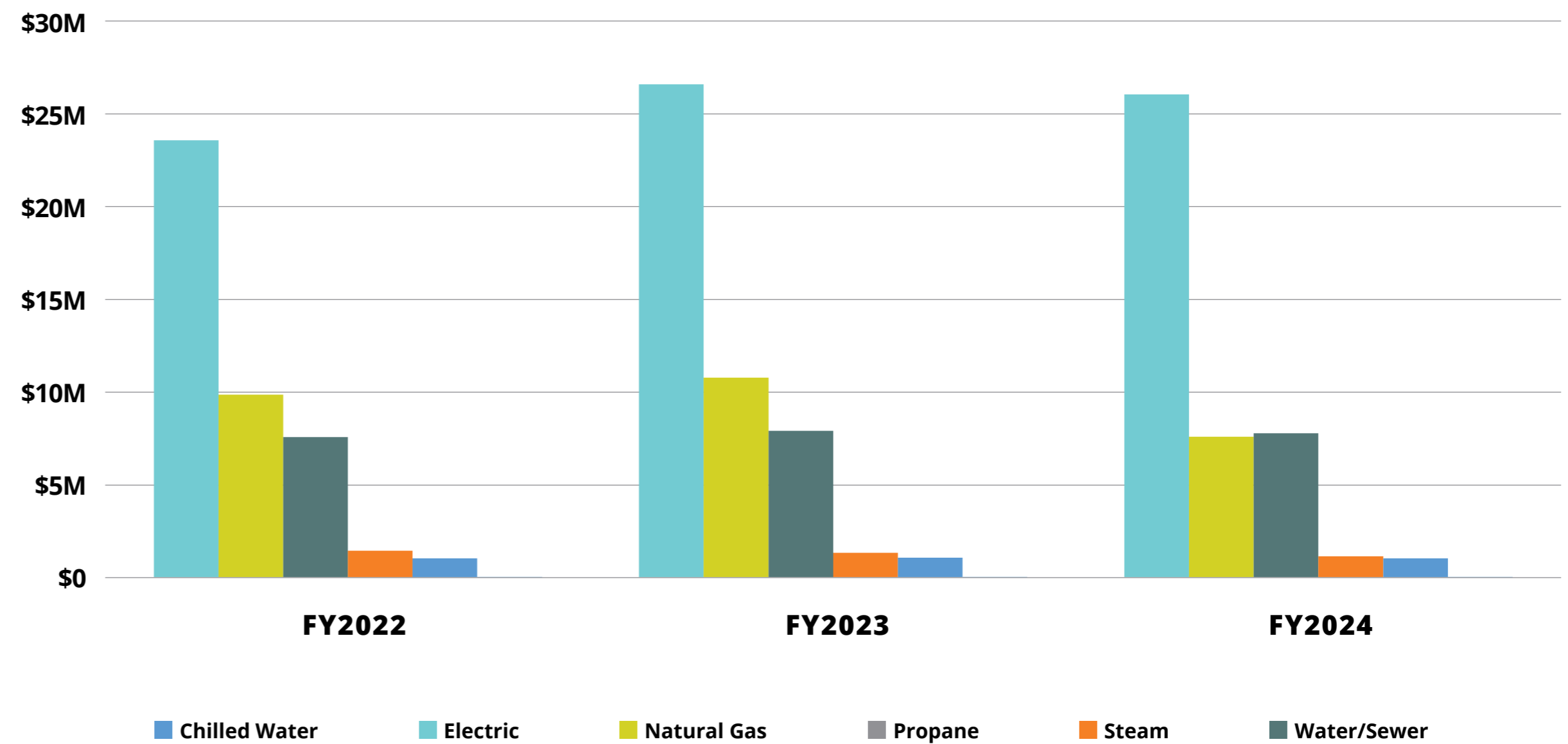


FY2022



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FIGURE 3.5 | Commodity Cost per Year Comparison, LGIs



# TBR

TOTAL UTILITY COSTS FOR FY2024

**\$24,723,249**



Electric power  
**76.9%**

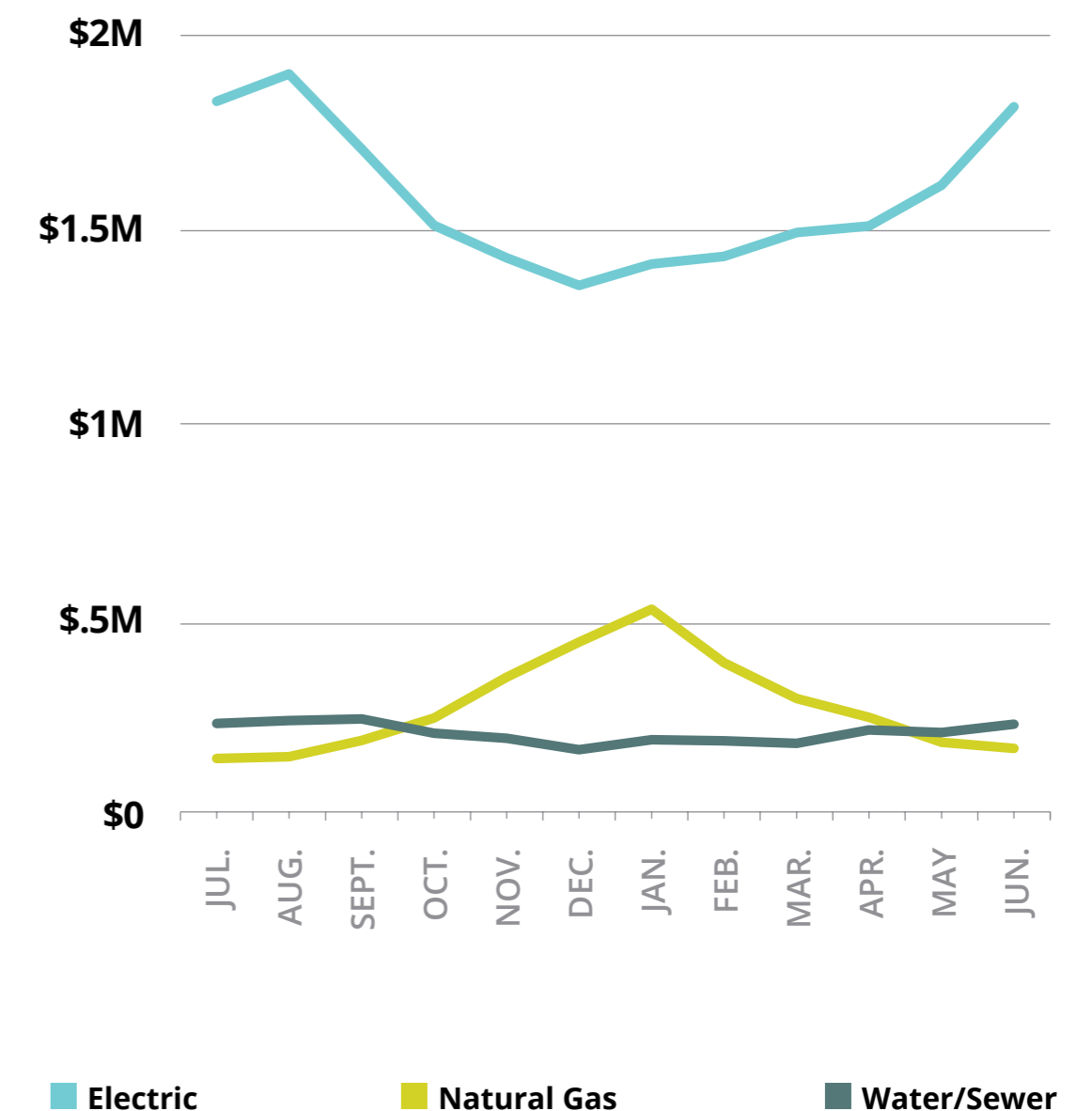


Natural gas  
**13.3%**

TABLE 3.5 | FY2024 Utility Cost by Commodity, TBR

COMMODITY	USAGE	UOM	COST	PERCENT
ELECTRIC	173,613,506	kWh	\$19,006,294	76.8%
NATURAL GAS	4,631,297	Therms	\$3,275,629	13.3%
WATER/SEWER	176,769	kgal	\$2,441,225	9.9%

FIGURE 3.6 | FY2024 Commodity Cost per Month, TBR



# TBR

## TOTAL UTILITY COST PER YEAR COMPARISON

FY2024



FY2023

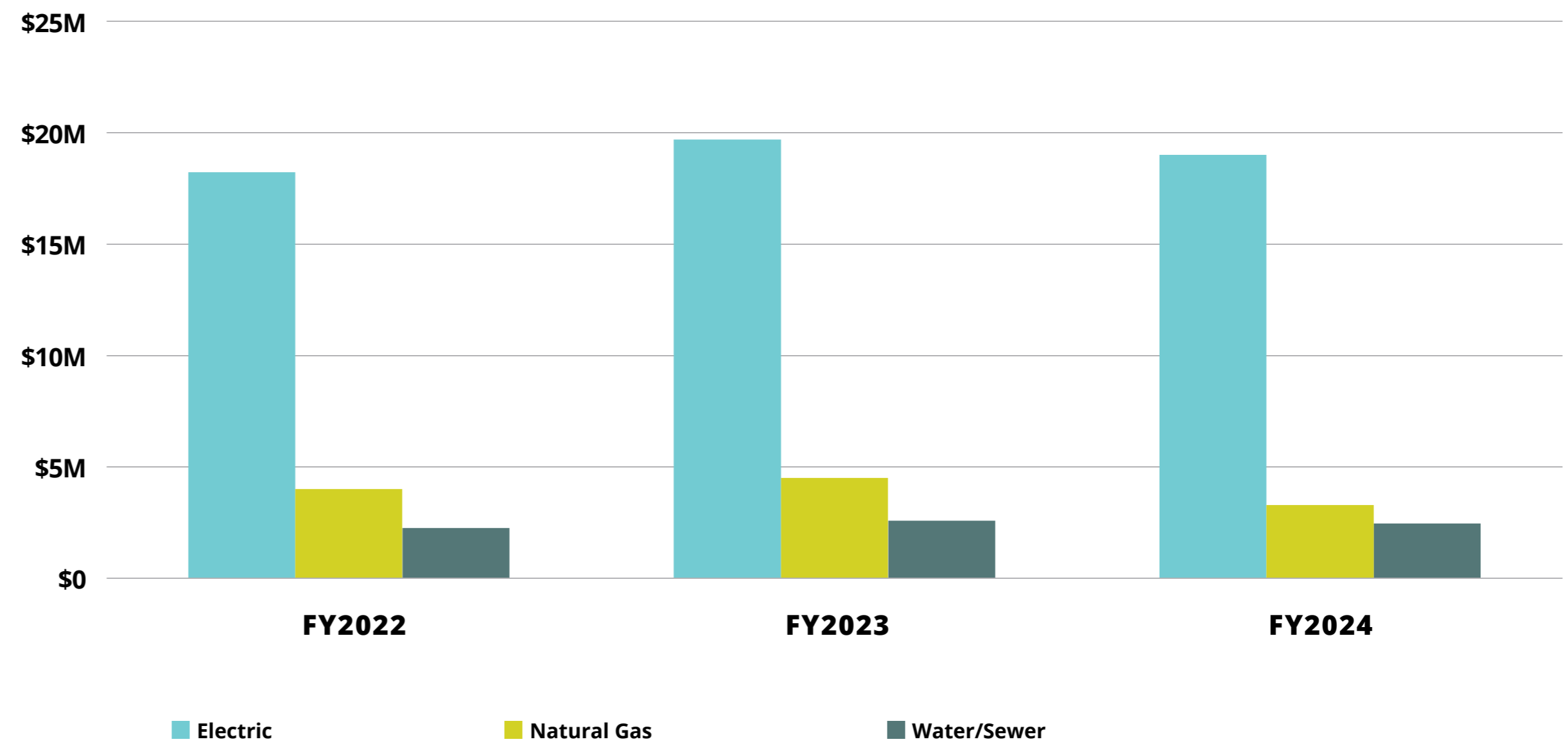


FY2022



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FIGURE 3.7 | Commodity Cost per Year Comparison, TBR



# UT System

TOTAL UTILITY COSTS FOR FY2024

**\$60,389,907**



Electric power  
**61.4%**

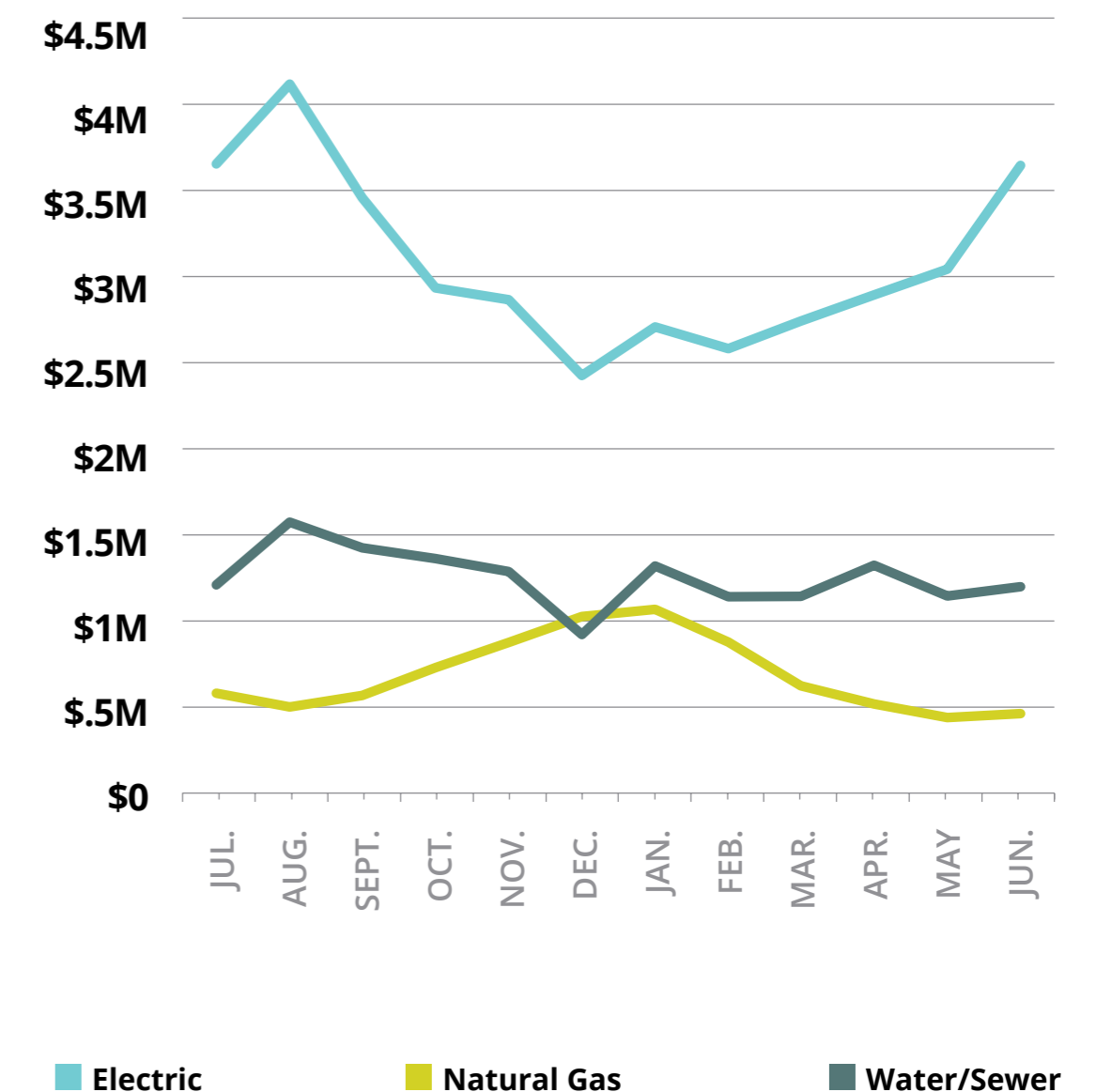


Water/sewer  
**24.9%**

TABLE 3.6 | FY2024 Utility Cost by Commodity, UT System

COMMODITY	USAGE	UOM	COST	PERCENT
ELECTRIC	392,236,641	kWh	\$37,075,757	61.4%
NATURAL GAS	20,492,241	Therms	\$8,269,784	13.7%
WATER/SEWER	1,069,832	kgal	\$15,044,367	24.9%

FIGURE 3.8 | FY2024 Commodity Cost per Month, UT System



# UT System

## TOTAL UTILITY COST PER YEAR COMPARISON

**FY2024**



**FY2023**

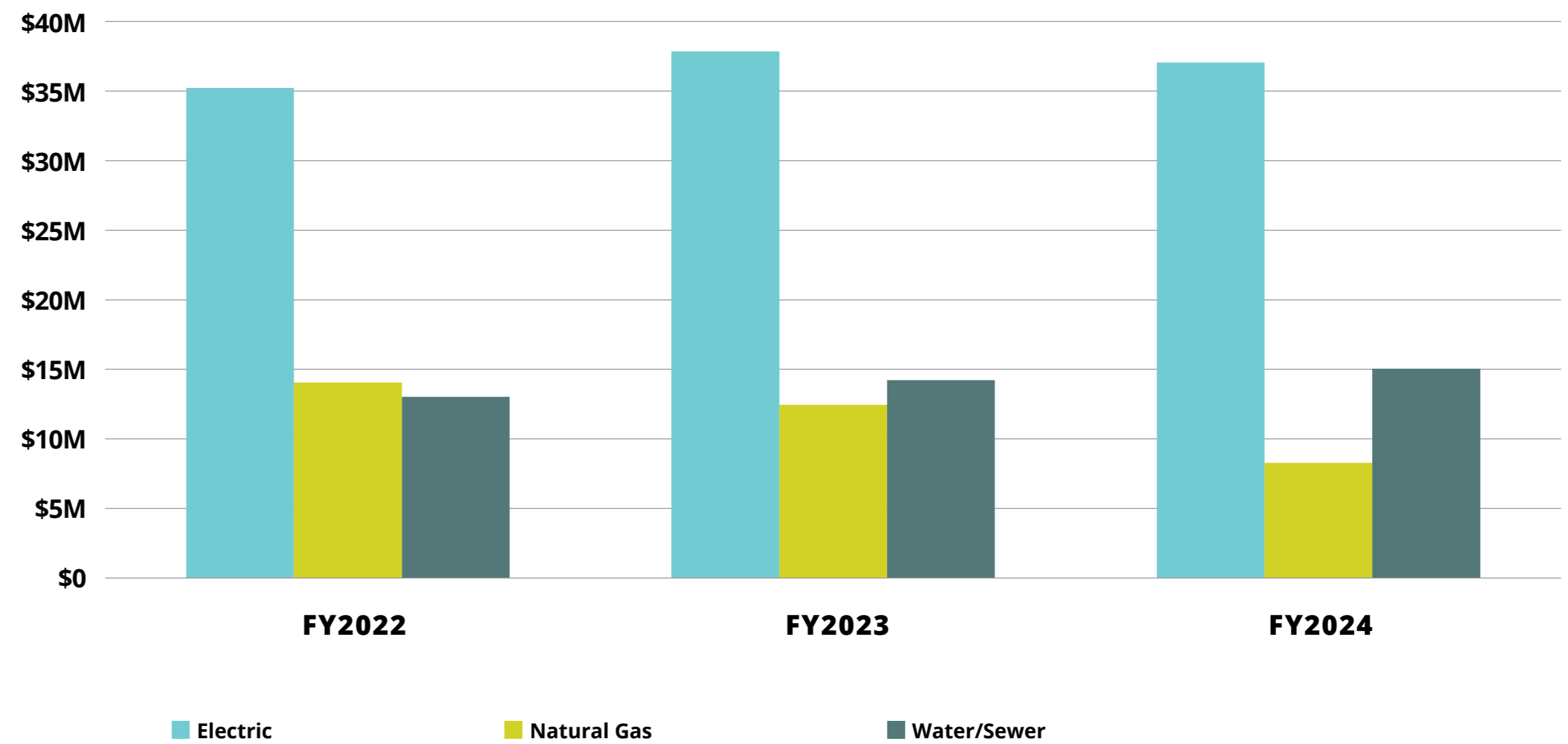


**FY2022**



[WANT MORE DETAILED DATA? EMAIL US >>](#)

**FIGURE 3.9 | Commodity Cost per Year Comparison, UT System**



# UDM in Action

The SFUM team and UDM users continue to utilize the UDM platform to assist in the tracking, development, and validation of utility conservation measure projects and fulfillment of technical assistance requests addressing issues including identifying the cause of consumption spikes (e.g., water leaks) and resolving billing errors (e.g., overbilling, faulty metering, and unauthorized charges such as charitable contribution charges, taxes, and other fees). During the fiscal year, General Government Agencies recouped over \$117,909 in utility costs, due to issues identified by SFUM, the UDM platform, and UDM users.

## EXAMPLES OF ENERGY SPIKES AND WATER LEAK DETECTION

The UDM platform identified multiple electrical and water usage spikes throughout the fiscal year by flagging costs substantially higher than previous bills. The SFUM team then coordinated with the facility and accounts payable staff to investigate and address potential leaks or electrical issues.

An example of an electrical spike occurred at the Cove Lake State Park, where new electric heating equipment was installed for the park's swimming pool. The SFUM team consulted with the park staff, which led to operational adjustments, saving hundreds in electrical costs each month during the winter.

Examples of confirmed water incidents and resulting utility credits include:

**Tennessee Department  
of Homeland Security,  
Volunteer Parkway**

**\$1,950.49**

**Tennessee Department  
of Transportation,  
Highway 96**

**\$3,097.87**

**Tennessee Department  
of Transportation,  
River Street**

**\$1,806.58**

## EXAMPLES OF UDM TECHNICAL ASSISTANCE

**Tennessee Department of General Services:** The Chief of Engineering requested UDM energy cost reports to track and reduce thermal inefficiency fuel surcharges. SFUM set up automated monthly report distributions to monitor progress on energy efficiency measures.

**Nashville Metro General Services:** For their annual LEED building comparison study, which compares the energy use of similar facilities, SFUM compiled utility data on the Tennessee Bureau of Investigation headquarters and crime lab located in Metro Nashville, providing multiple data variations for comparison to Metro facilities for the report.

# Current Offerings

## Accessing the UDM Platform

The UDM platform is available to all State employees (e.g., fiscal personnel, State facility and utility managers, sustainability professionals, and technical assistance providers) of participating General Government Agencies, LGIs, TBR schools, and UT System schools (for a complete list of participating entities, see [Appendices](#)).

### READY TO REGISTER?

Please direct requests to the SFUM team at [TDEC.SFUM@tn.gov](mailto:TDEC.SFUM@tn.gov).

## Energy Liaison Program (ELP)

Launched in January 2023, the ELP is designed to provide resources, training, professional development opportunities, and a peer learning network for State personnel (e.g., facility managers, building maintenance personnel, and sustainability professionals). Leveraging the features and benefits of the UDM platform, the ELP aims to help energy liaisons identify potential energy and utility savings opportunities in their facilities.

The ELP hosted webinars during FY2024, which highlighted:

- **TVA EnergyRight incentives for energy efficiency upgrades and how to participate;**
- **TVA's renewable energy programs and how they can benefit State facilities;**
- **The UDM platform and how to navigate, manage bills and bill flags, and review reports and dashboards; and**
- **HVAC and boiler system standards, codes, and routine maintenance for improved efficiency.**

Following each ELP webinar, a newsletter is distributed to all ELP members. It recaps the previous meeting and provides information on industry news, upcoming events and training opportunities, State facility spotlights, relevant energy resources, and reminders of resources available on the ELP website and for the UDM platform.



Interested in becoming an energy liaison? Send a note or referral to the SFUM team at [TDEC.SFUM@tn.gov](mailto:TDEC.SFUM@tn.gov).

# Additional Info

## APPENDIX A

### Utility Usage Calculations

#### TABLE 3.2, P. 6

Change in FY2022-FY2024 in Overall Cost and Overall Usage by Utility

#### Calculations for each utility commodity:

Usage Change (%) =  $(\text{FY2024 usage} - \text{FY2022 usage}) / (\text{FY2022 usage})$

Total Usage Change =  $(\text{FY2024 usage} - \text{FY2022 usage})$

Cost Change (%) =  $(\text{FY2024 cost} - \text{FY2022 cost}) / (\text{FY2022 cost})$

Total Cost Change (\$) =  $(\text{FY2024 cost} - \text{FY2022 cost})$

## APPENDIX B

### List of General Government Agencies<sup>5</sup>

Department of Agriculture

Department of Children's Services

Department of Commerce & Insurance

Department of Corrections

Department of Education

Department of Environment & Conservation

Department of General Services

Department of Health

Department of Human Services

Department of Intellectual & Developmental Disabilities

Department of Mental Health & Substance Abuse Services

Department of Military

Department of Safety & Homeland Security

Department of Tourist Development

Department of Transportation

Department of Veterans Services

Legislative Services

National Civil Rights Museum

Tennessee Bureau of Investigation

Tennessee District Attorneys General Conference

Tennessee District Public Defenders Conference

Tennessee Rehabilitative Initiative in Correction

Tennessee Secretary of State

Tennessee Wildlife Resources Agency

## APPENDIX C

### List of LGIs

Austin Peay State University

East Tennessee State University

Middle Tennessee State University

Tennessee State University

Tennessee Tech University

University of Memphis

<sup>5</sup>The list of General Government Agencies captured in the UDM Report consists of agencies that pay utility bills for State-owned and -managed facilities.

## APPENDIX D

## List of TBR Community Colleges

Chattanooga State Community College

Cleveland State Community College

Columbia State Community College

Dyersburg State Community College

Jackson State Community College

Motlow State Community College

Nashville State Community College

Northeast State Community College

Pellissippi State Community College

Roane State Community College

Southwest Tennessee Community College

Volunteer State Community College

Walters State Community College

## APPENDIX E

## List of TBR TCATs

TCAT Athens

TCAT Chattanooga

TCAT Crossville

TCAT Crump

TCAT Dickson

TCAT Elizabethton

TCAT Harriman

TCAT Hartsville

TCAT Hohenwald

TCAT Jacksboro

TCAT Jackson<sup>6</sup>

TCAT Knoxville

TCAT Livingston

TCAT McKenzie

TCAT McMinnville

TCAT Memphis

TCAT Morristown

TCAT Murfreesboro

TCAT Nashville

TCAT Northwest<sup>7</sup>

TCAT Oneida

TCAT Paris

TCAT Pulaski

TCAT Shelbyville

## APPENDIX F

## List of the UT System Facilities

The University of Tennessee –  
Chattanooga

The University of Tennessee – Health  
Science Center at Memphis

The University of Tennessee – Knoxville

The University of Tennessee – Martin

The University of Tennessee –  
Southern at Pulaski

The University of Tennessee – Institute  
of Agriculture

The University of Tennessee – Space  
Institute

<sup>6</sup> TCAT Whiteville has become part of TCAT Jackson as of October 2021.

<sup>7</sup> TCAT Covington and TCAT Ripley merged with TCAT Northwest in Fall 2023.

## APPENDIX G

## Lists of Tables and Figures

### TABLES

REFERENCE NO.	DESCRIPTION	PAGE
<b>TABLE 3.1</b>	FY2024 Share of Portfolio by Organizational Group (% of square feet)	<b><u>5</u></b>
<b>TABLE 3.2</b>	Change in FY2022-FY2024 in Overall Cost and Overall Usage by Utility	<b><u>6</u></b>
<b>TABLE 3.3</b>	FY2024 Utility Cost by Commodity, General Government	<b><u>7</u></b>
<b>TABLE 3.4</b>	FY2024 Utility Cost by Commodity, LGIs	<b><u>9</u></b>
<b>TABLE 3.5</b>	FY2024 Utility Cost by Commodity, TBR	<b><u>11</u></b>
<b>TABLE 3.6</b>	FY2024 Utility Cost by Commodity, UT System	<b><u>13</u></b>

### FIGURES

REFERENCE NO.	DESCRIPTION	PAGE
<b>FIGURE 3.1</b>	FY2024 All State Utility Cost Profile by Commodity (% of total cost)	<b><u>5</u></b>
<b>FIGURE 3.2</b>	FY2024 Commodity Cost per Month, General Government	<b><u>7</u></b>
<b>FIGURE 3.3</b>	Commodity Cost per Year Comparison, General Government	<b><u>8</u></b>
<b>FIGURE 3.4</b>	FY2024 Commodity Cost per Month, LGIs	<b><u>9</u></b>
<b>FIGURE 3.5</b>	Commodity Cost per Year Comparison, LGIs	<b><u>10</u></b>
<b>FIGURE 3.6</b>	FY2024 Commodity Cost per Month, TBR	<b><u>11</u></b>
<b>FIGURE 3.7</b>	Commodity Cost per Year Comparison, TBR	<b><u>12</u></b>
<b>FIGURE 3.8</b>	FY2024 Commodity Cost per Month, UT System	<b><u>13</u></b>
<b>FIGURE 3.9</b>	Commodity Cost per Year Comparison, UT System	<b><u>14</u></b>

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SFUM partnered with **Milepost** on the compilation and design of this report.



### IMAGE ATTRIBUTION

Cover photo of The Lodge at Pickwick Landing State Park by Aerial Innovations Southeast.