

# City of Kingston

## 2026 Energy Benchmarking Report

### for the 2025 Calendar Year



Mayor Steven T. Noble

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**This Energy Benchmarking Report covers the City of Kingston's energy use for the period January 1st, 2025 to December 31st, 2025.**

This report includes:

- An introduction and overview of the benchmarking process
- Building information including property name, address, benchmarked metrics, use, and square feet
- Nineteen monthly energy use graphs for individual municipal buildings over 1000 square feet
- Cumulative energy use graphs for municipal buildings over 1000 square feet
- Conclusions drawn from the benchmarking data

### Introduction

Benchmarking energy performance is the first step in determining where and how to implement energy improvements in the City of Kingston's municipal properties. Through benchmarking, the City has established baselines for building energy use that help identify inefficiencies, direct actions to maximize performance, and support budgeting efforts. Benchmarking provides the City with the energy use data needed to increase operational efficiency and effectively use taxpayer resources. Additionally, this data is needed to inform energy conservation policy and program development, a crucial aspect of climate action planning.

### Overview of the benchmarking process:

The City of Kingston benchmarks energy use through Portfolio Manager, a free online program by Energy Star and the U.S. Environmental Protection Agency (EPA). As required by the City of Kingston's 2017 Benchmarking Initiative, the City's Environmental Specialist inputs monthly energy use information into Portfolio Manager. The software then catalogues the data for easy access. All energy use information in this report was obtained through Portfolio Manager or directly from Central Hudson bills and then graphed in Microsoft Excel workbooks.

The City of Kingston benchmarks energy use through two metrics: electricity and natural gas. Energy use is recorded in Kilo British Thermal Units (kBtu). Electricity use information is available in this report for 19 municipal buildings, and natural gas for 17 buildings.

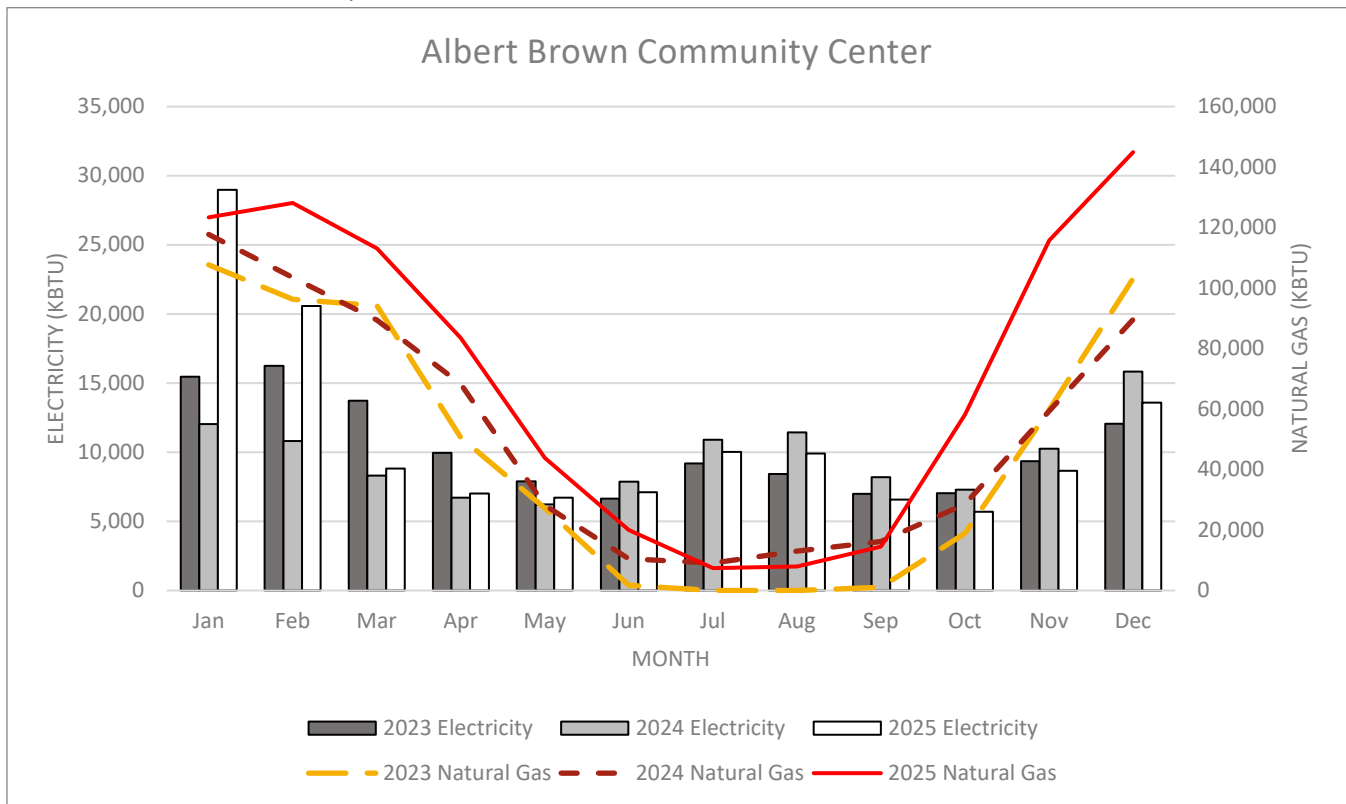
## Municipal buildings included in this report

| Property Name                            | Address              | Benchmarked Metrics | Account #  | Use              | Square Feet |
|--|----------------------|---------------------|--|------------------|-------------|
| Albert Brown Community Center            | 103 Broadway         | Electricity and Gas | 2100-0919-27-0<br>2100-0919-07-2                   | Community Center | 11,070      |
| Andretta Pool                            | 76 North Front St.   | Electricity         | 2100-0988-98-6                                     | Recreation       | 3,100       |
| Andy Murphy Neighborhood Center (AMNC)   | 467 Broadway         | Electricity and Gas | 2100-0944-34-4<br>2100-0944-19-5                   | Community Center | 30,832      |
| Central Firehouse                        | 19 East O'Reilly St. | Electricity and Gas | 2100-1060-98-3<br>2100-1061-14-8                   | Fire Station     | 10,140      |
| City Hall                                | 420 Broadway         | Electricity and Gas | 2100-1098-80-1<br>2100-1098-92-6                   | Office           | 24,906      |
| DPW Administrative Building              | 25 East O'Reilly St. | Electricity and Gas | 2100-1060-64-5<br>2100-1060-87-6                   | Office           | 13,593      |
| DPW Building – Wilbur Avenue             | 454 Wilbur Ave.      | Electricity and Gas | 2100-0838-16-5<br>2100-0986-39-4                   | Garage           | 2,240       |
| DPW Bus Garage                           | 464 Hasbrouck Ave.   | Electricity and Gas | 2100-1028-40-2<br>2100-1028-20-4                   | Garage           | 7,000       |
| DPW Bus Wash                             | 478 Hasbrouck Ave.   | Electricity and Gas | 2100-1028-07-1<br>2100-1060-28-0                   | Garage           | 6,200       |
| DPW Maintenance Garage                   | 478 Hasbrouck Ave.   | Electricity and Gas | 2100-1060-03-3<br>2100-1060-17-3                   | Garage           | 12,420      |
| Everette Hodge Community Center          | 15-21 Franklin St.   | Electricity and Gas | 2100-1046-83-4<br>2100-1046-67-7                   | Community Center | 3,600       |
| Fireman's Museum                         | 267 Fair St.         | Electricity and Gas | 2100-0677-30-8<br>2100-0710-09-1                   | Museum           | 14,896      |
| Police Station and Courthouse            | 1 Garraghan Dr.      | Electricity and Gas | 2100-0874-35-0<br>2100-0874-90-5                   | Police Station   | 25,907      |
| Rondout Offices                          | 20 Broadway          | Electricity and Gas | 2100-0876-93-4<br>2100-0876-79-3                   | Office           | 1,600       |
| Rondout Fire Station                     | 5 Garraghan Dr.      | Electricity and Gas | 2100-0874-60-8<br>2100-0874-75-6                   | Fire Station     | 7,340       |
| Salt Shed                                | 394-458 Wilbur Ave.  | Electricity         | 2100-0837-11-8                                     | Utility          | 1,120       |
| Uptown Firehouse                         | 30 Frog Alley        | Electricity and Gas | 2100-0838-55-3<br>2100-0838-70-2                   | Fire Station     | 6,603       |
| Wastewater Treatment Plant               | 91 East Strand St.   | Electricity and Gas | 2100-0348-27-2<br>2100-0896-36-1<br>2100-0988-78-8 | Utility          | 26,405      |
| Water Department Administrative Building | 111 Jansen Ave.      | Electricity and Gas | 2100-1098-25-6<br>2100-1098-25-6                   | Office           | 1,225       |

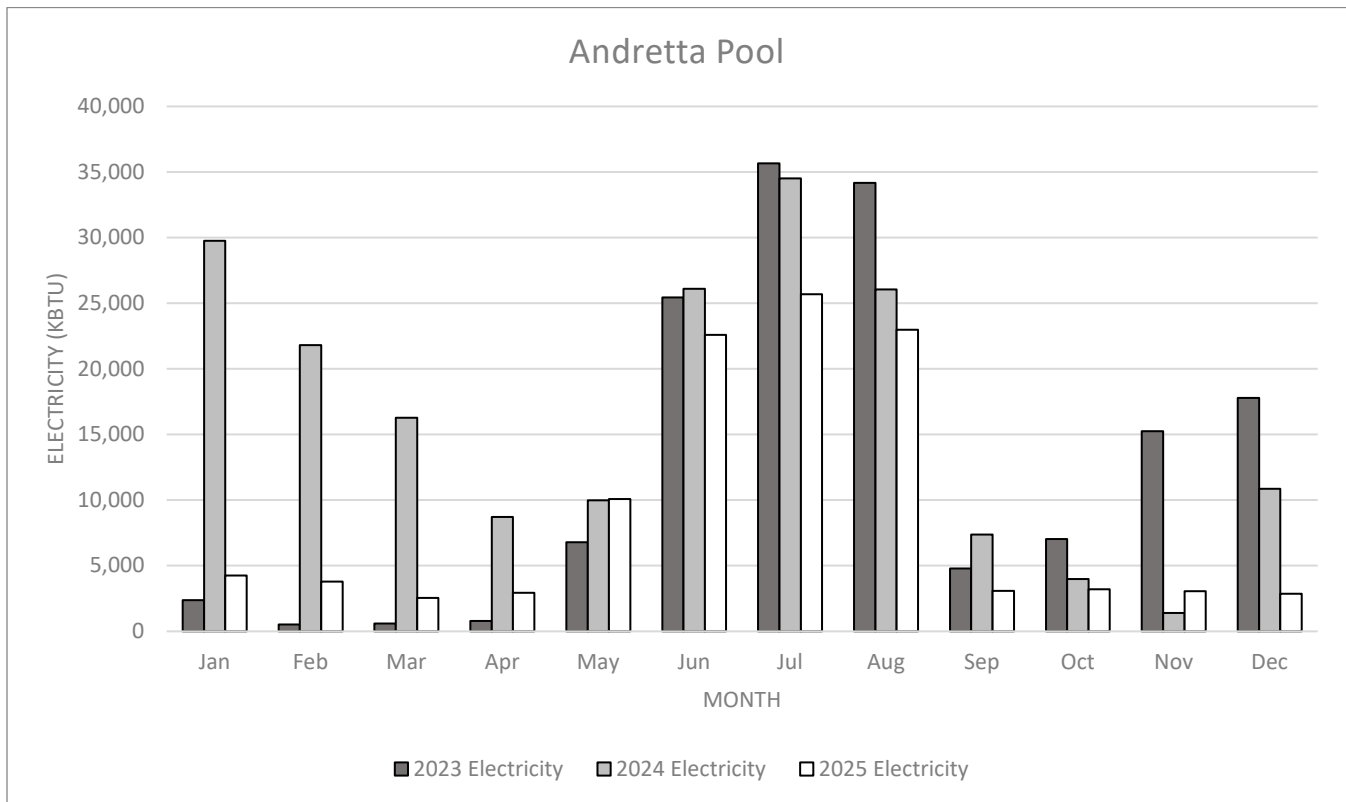
The following graphs represent the energy consumption and, when applicable, production of each municipal facility in alphabetical order. Please see the appendix for a summary data table.

**Please note:** All dual-metric graphs contain two scales. The left axis is scaled to electricity data, and the right axis is scaled to natural gas data, both in kBtu.

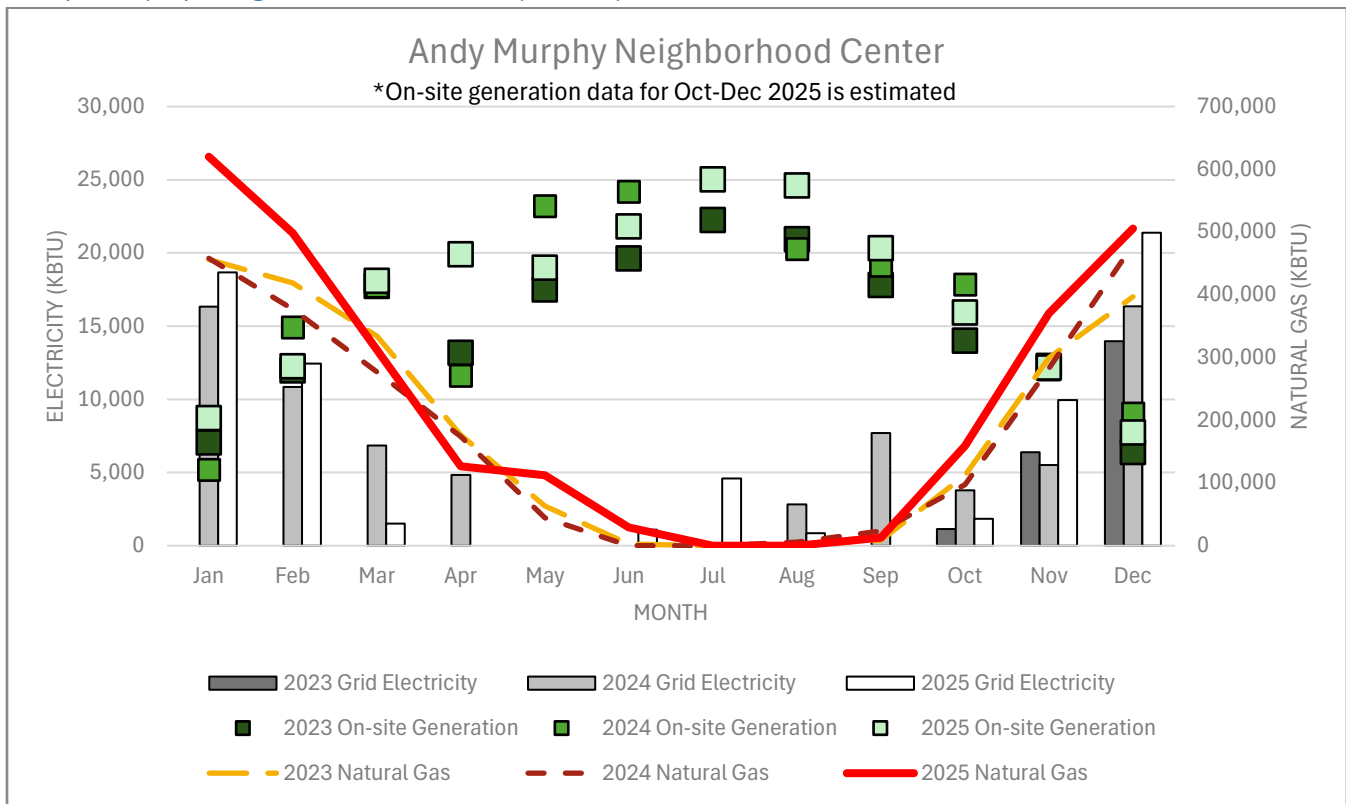
## Albert Brown Community Center



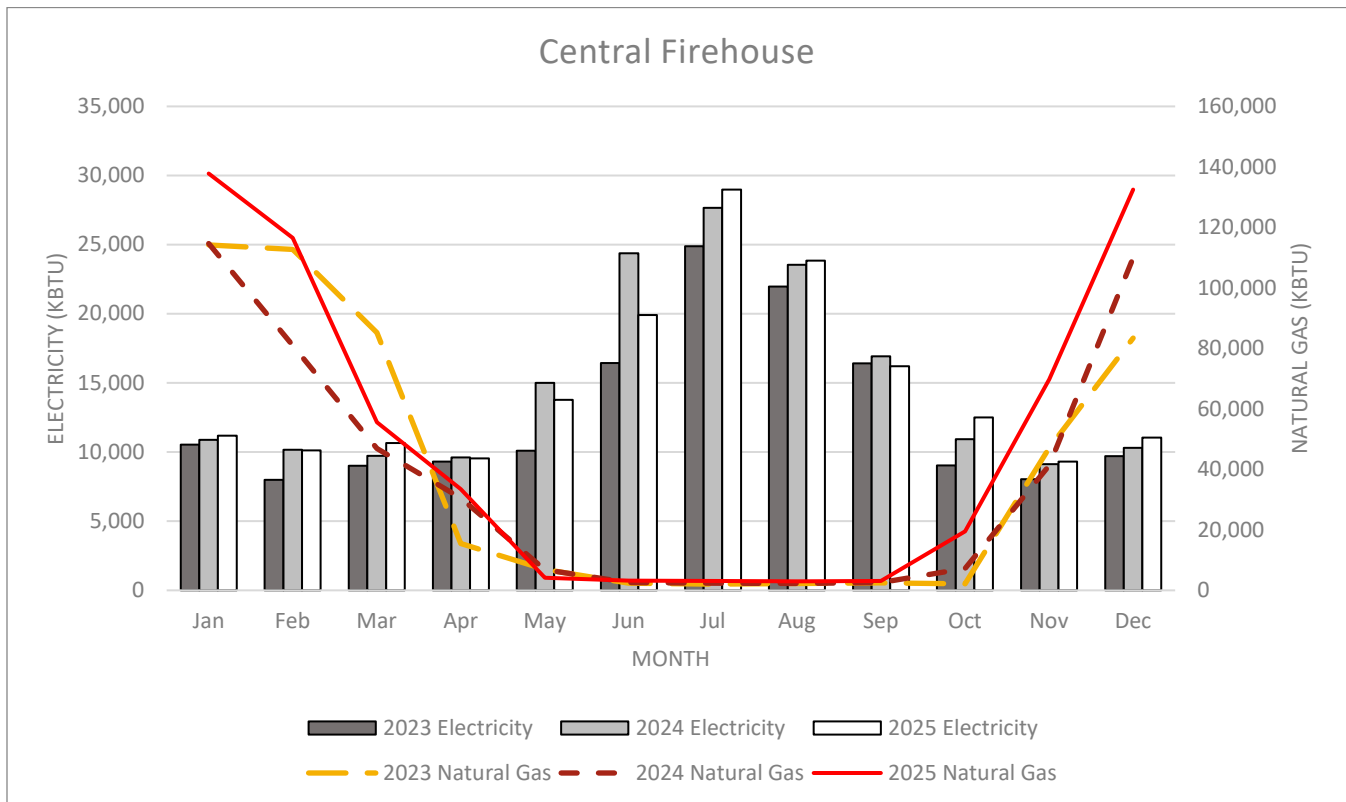
## Andretta Pool



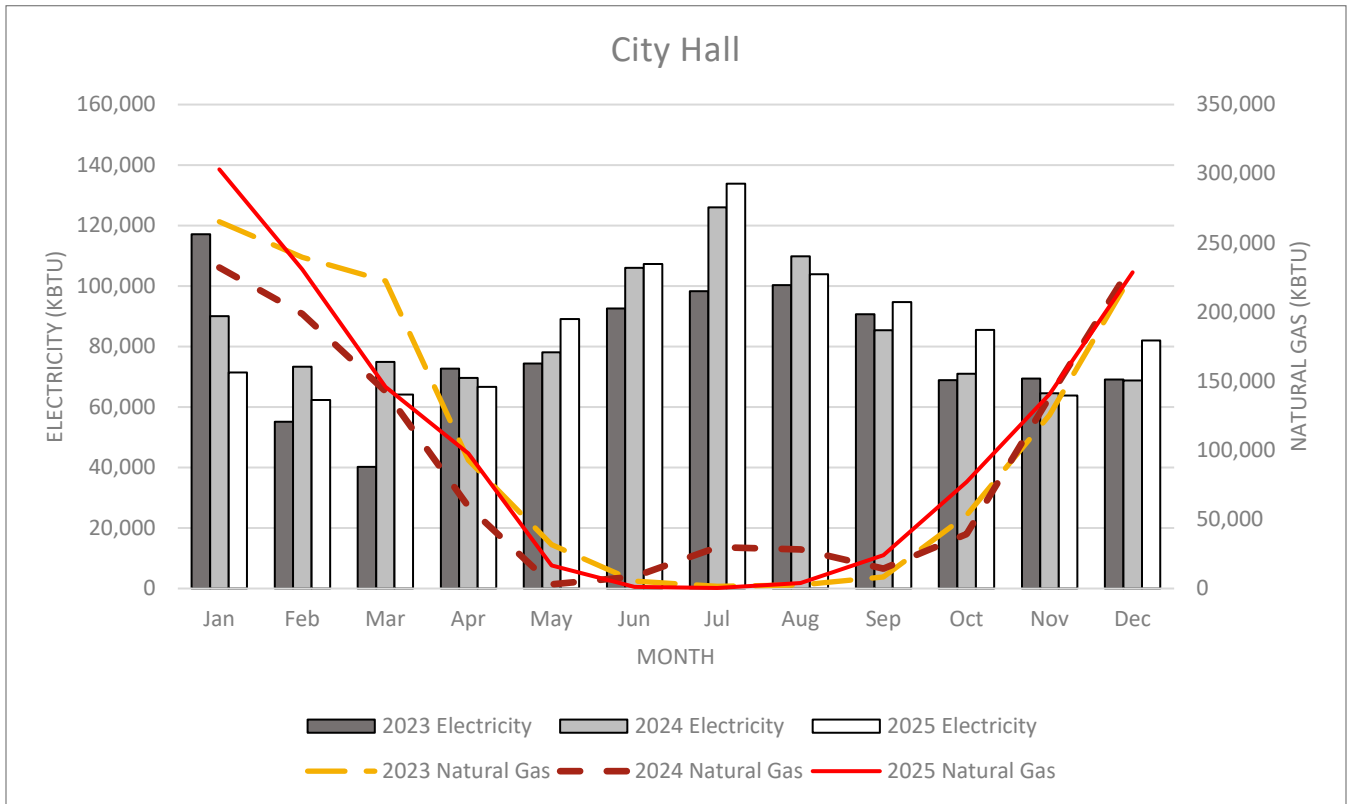
## Andy Murphy Neighborhood Center (AMNC)



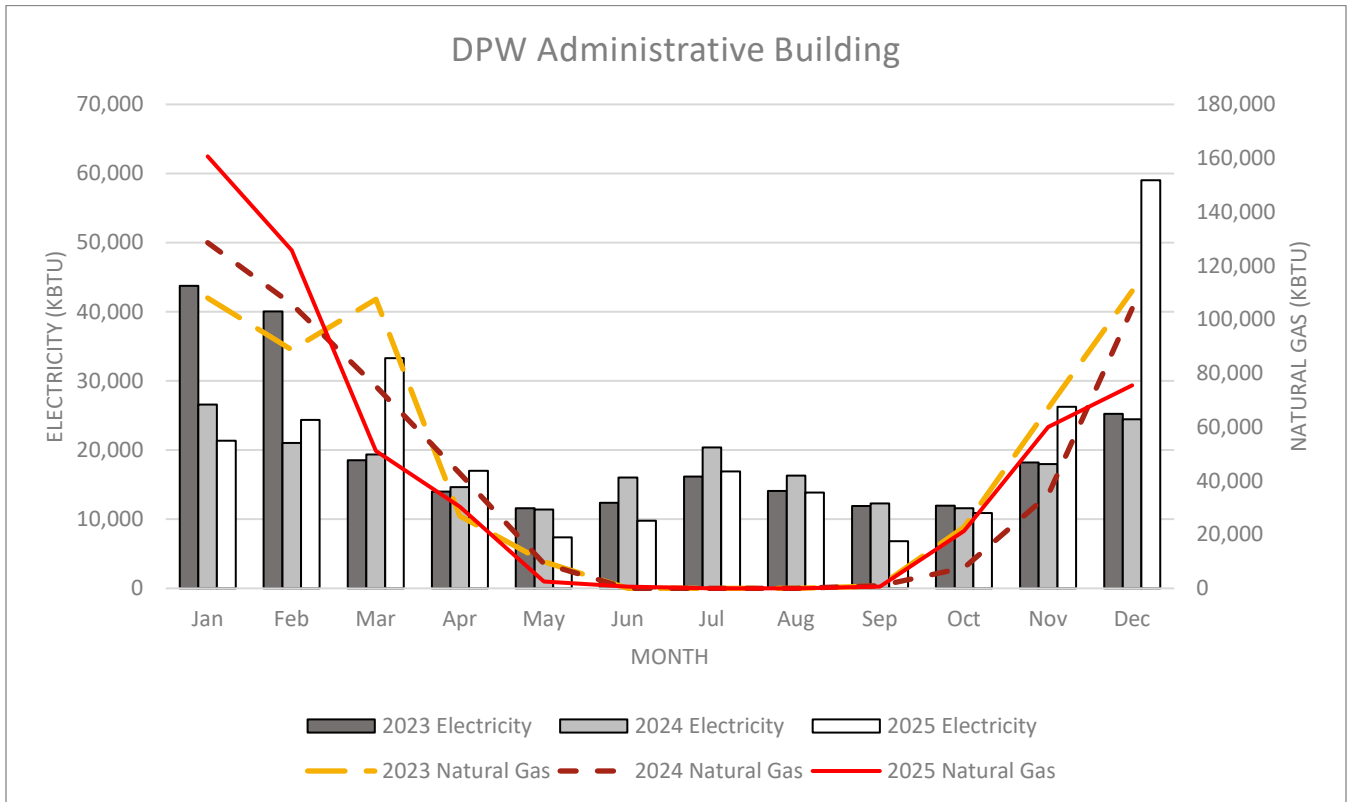
## Central Firehouse



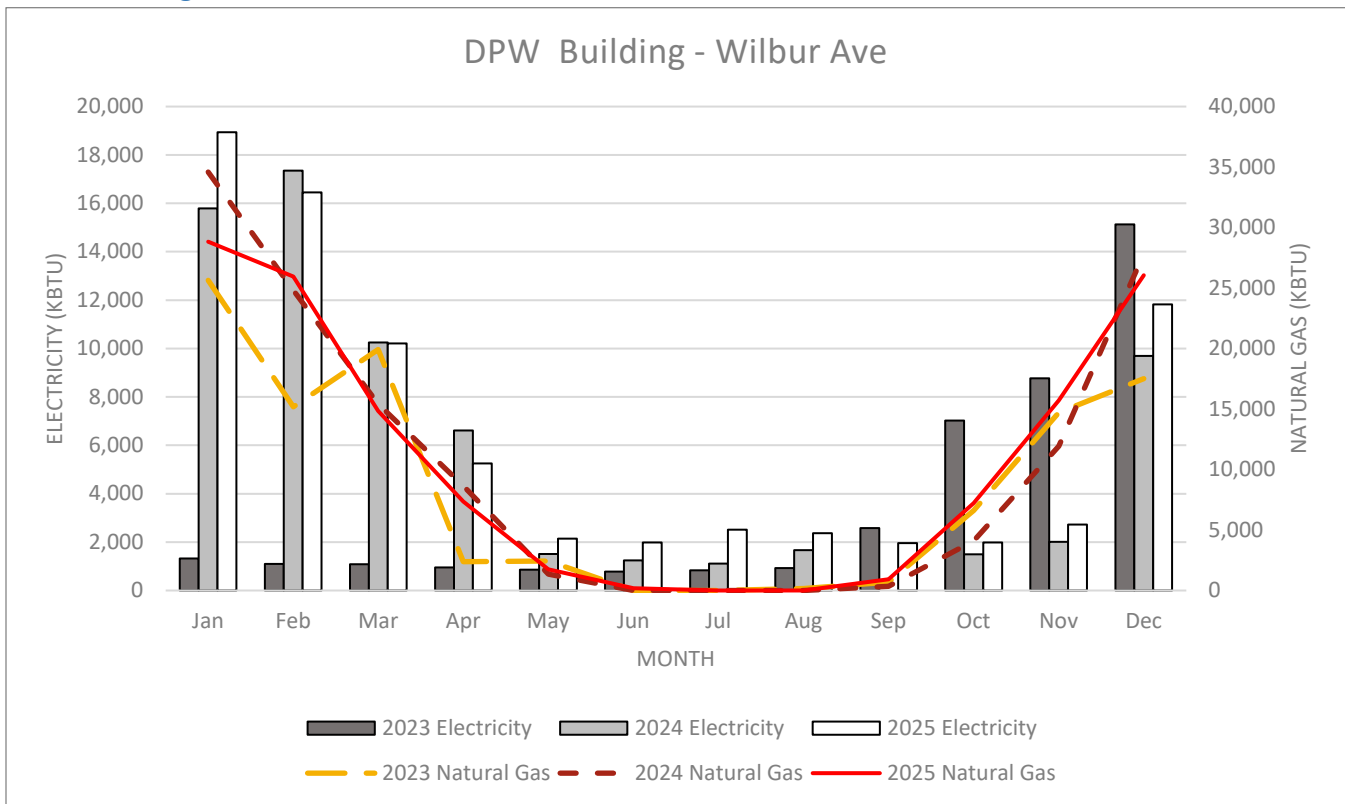
City Hall



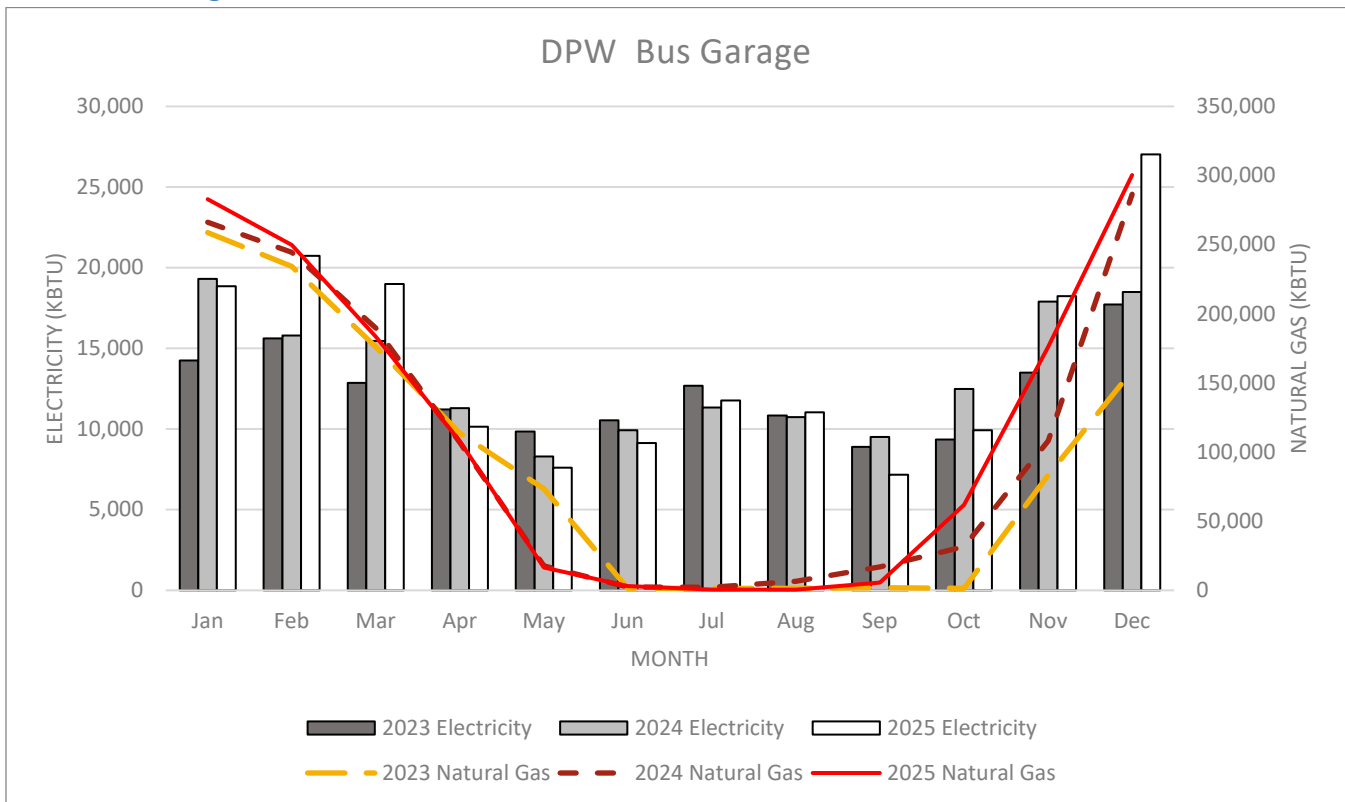
DPW Administrative Building



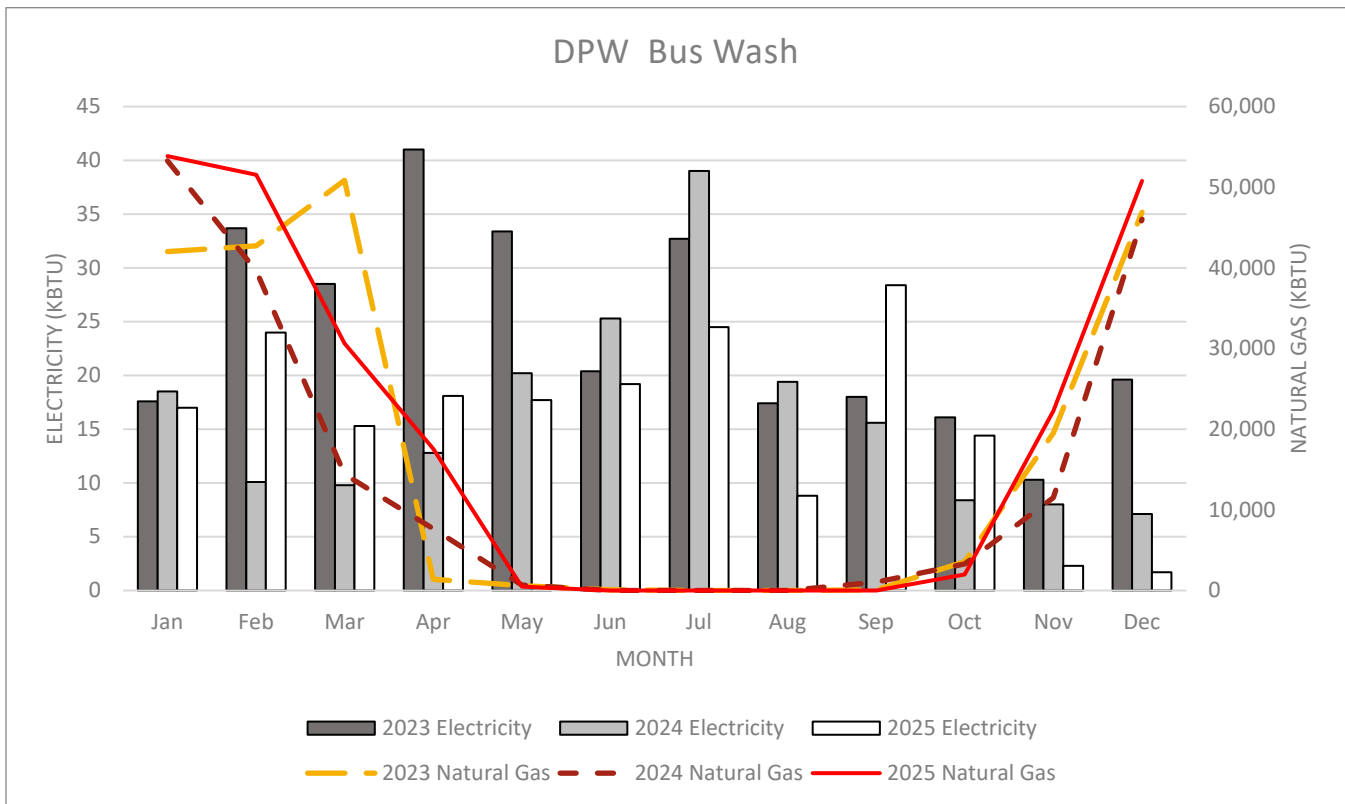
DPW Building – Wilbur Avenue



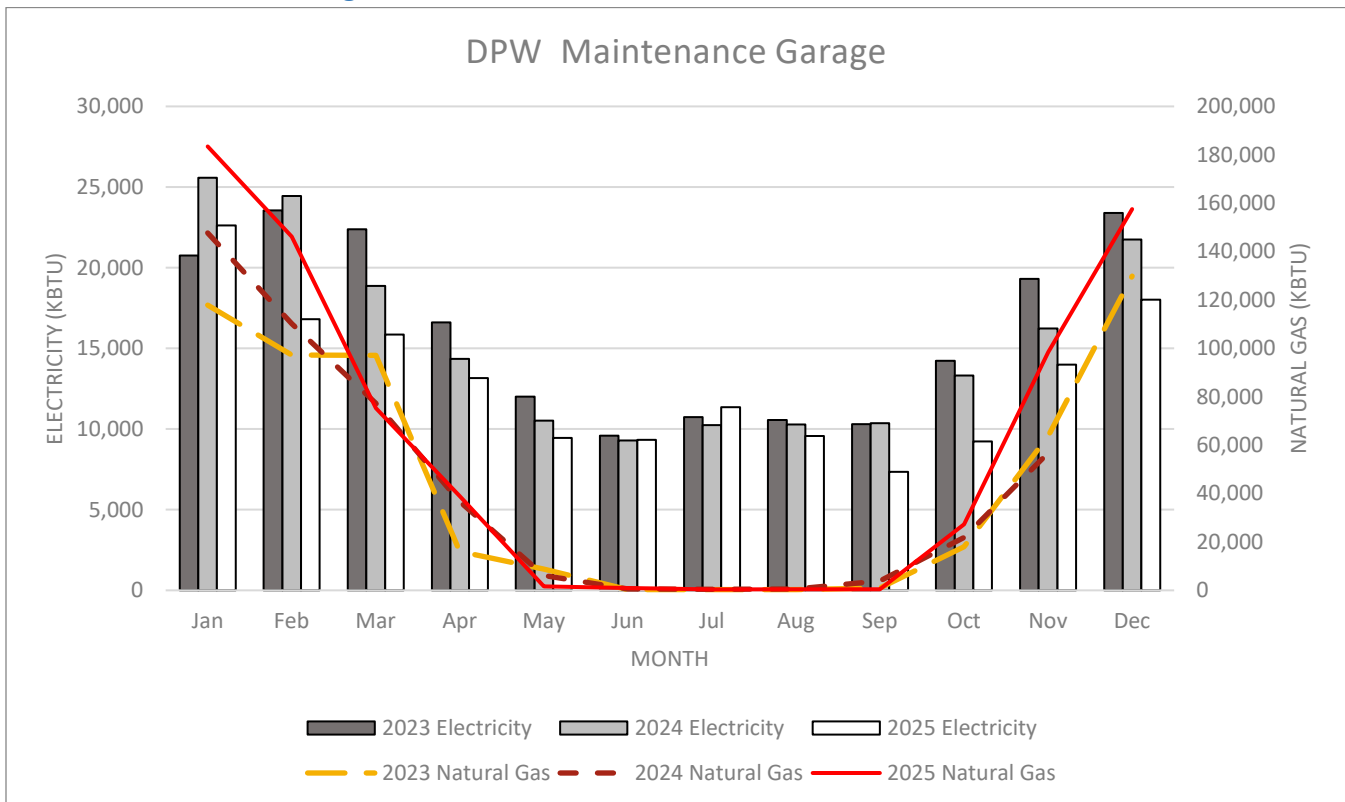
DPW Bus Garage



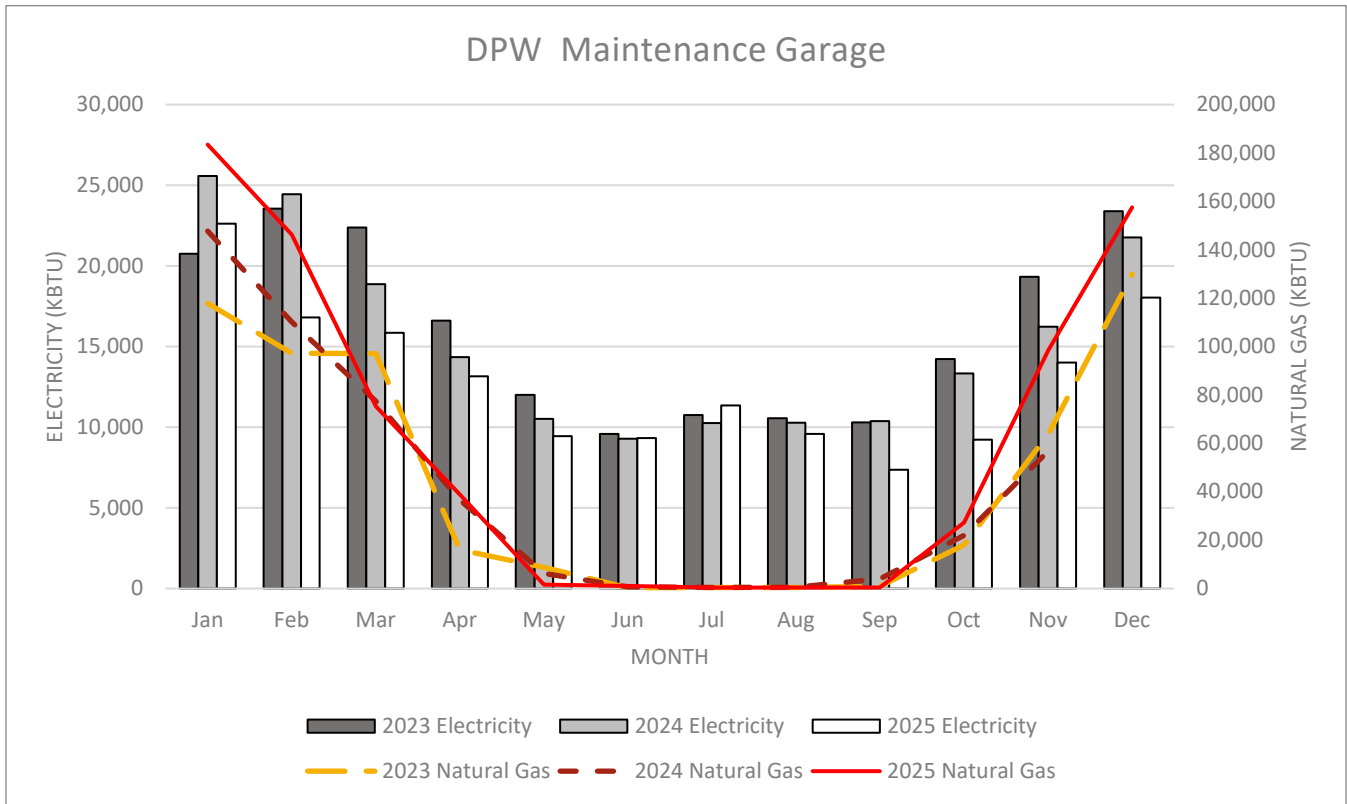
## DPW Bus Wash



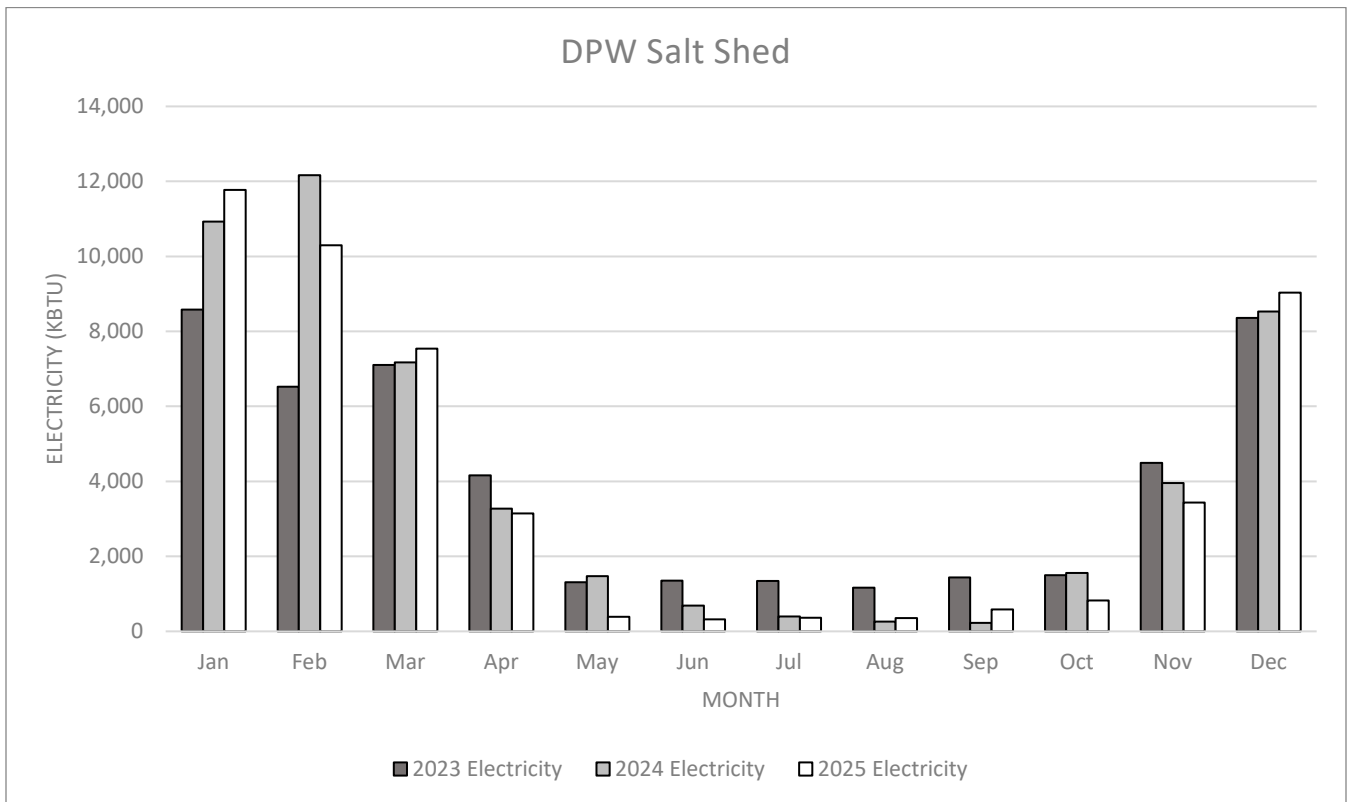
## DPW Maintenance Garage



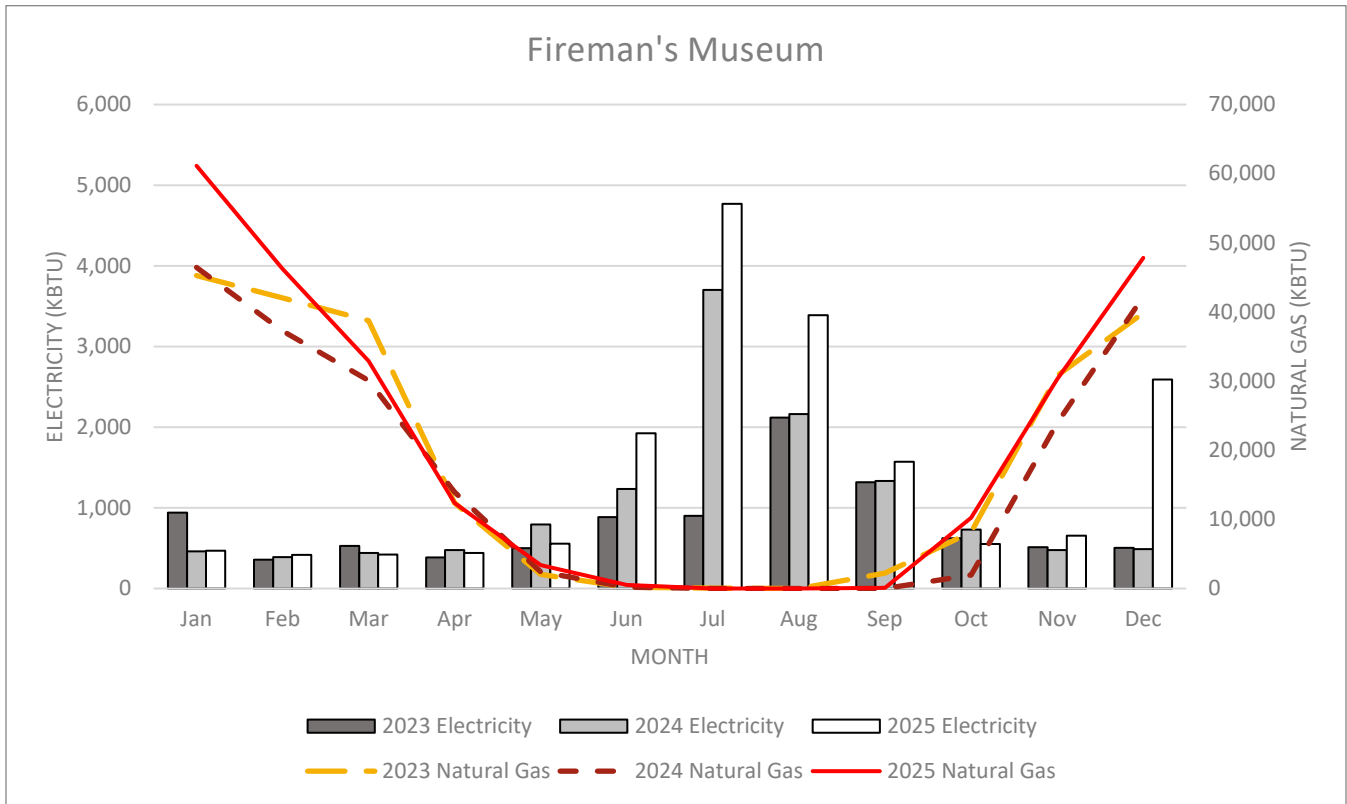
Everette Hodge Community Center



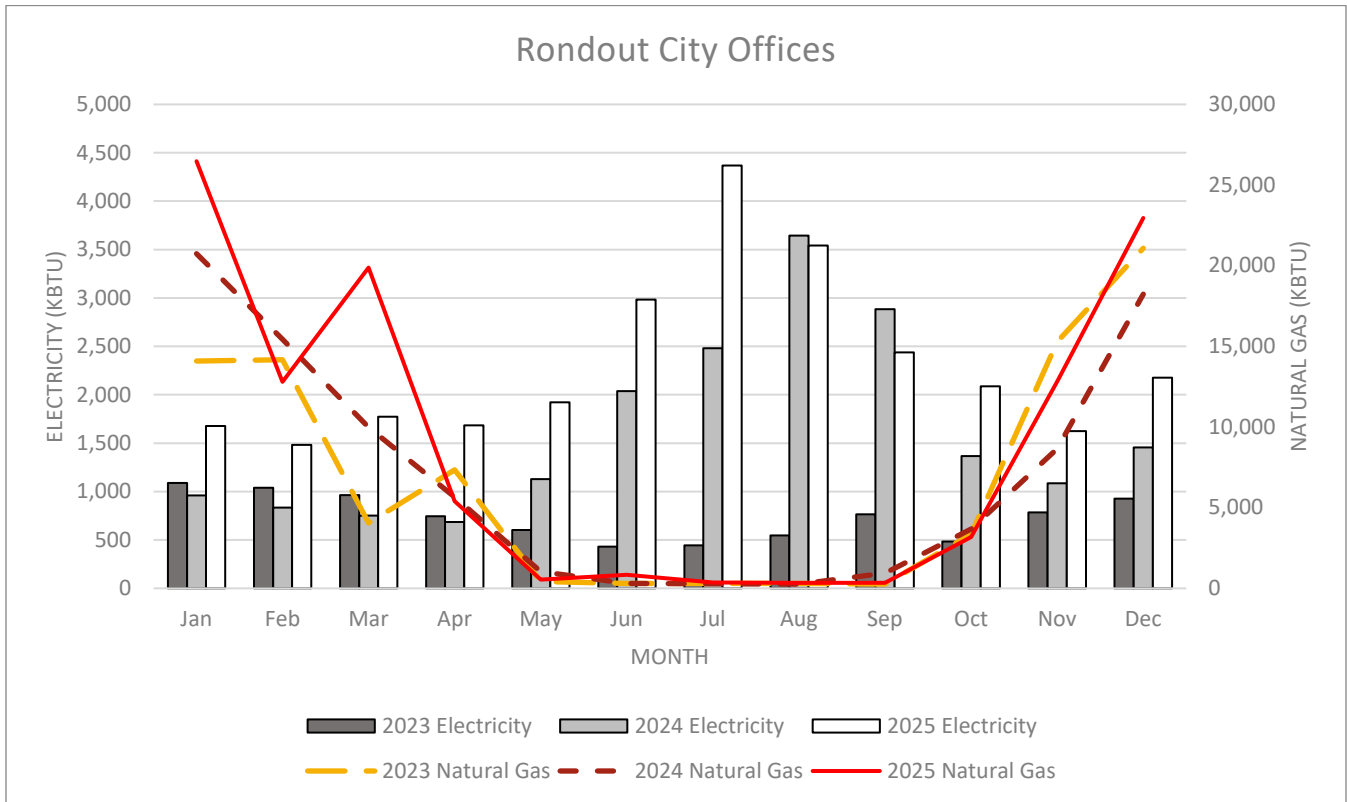
DPW Salt Shed



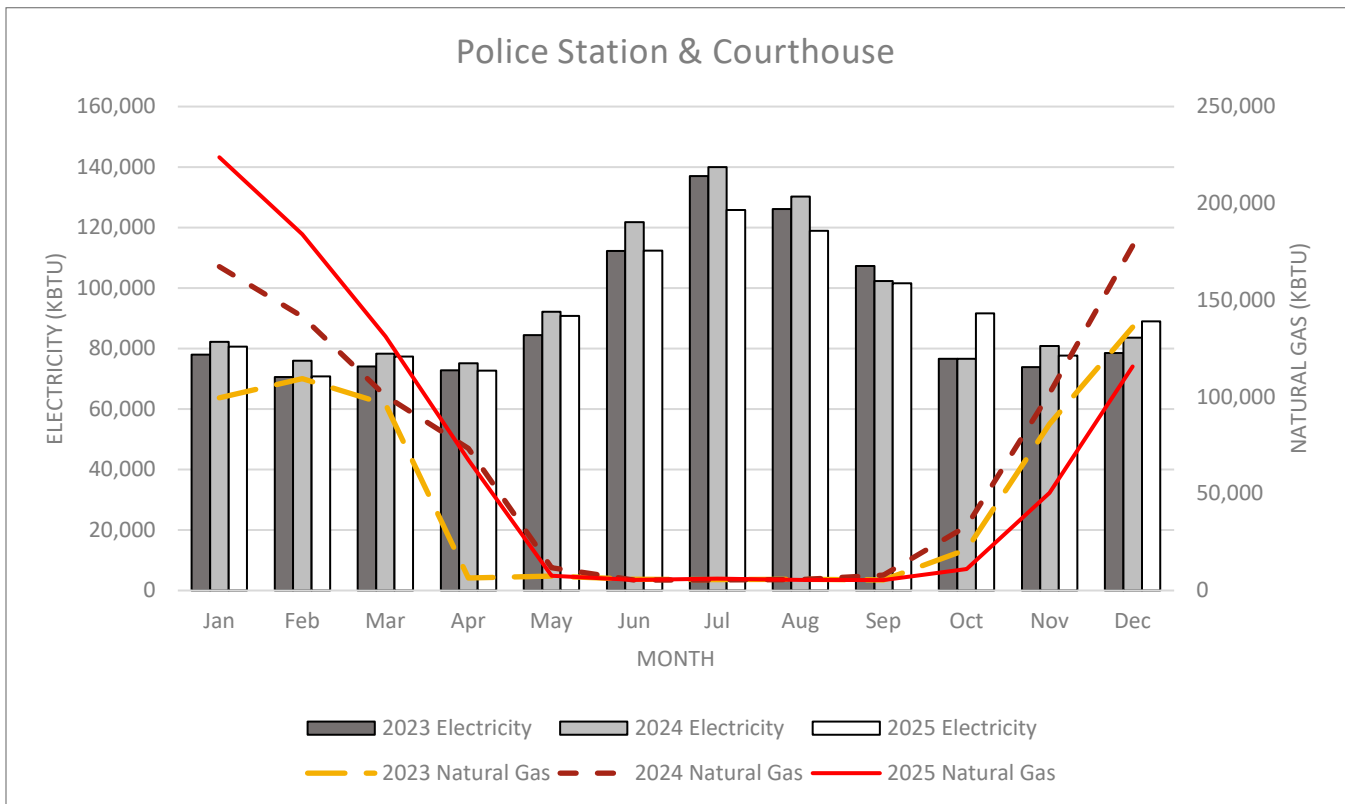
Fireman's Museum



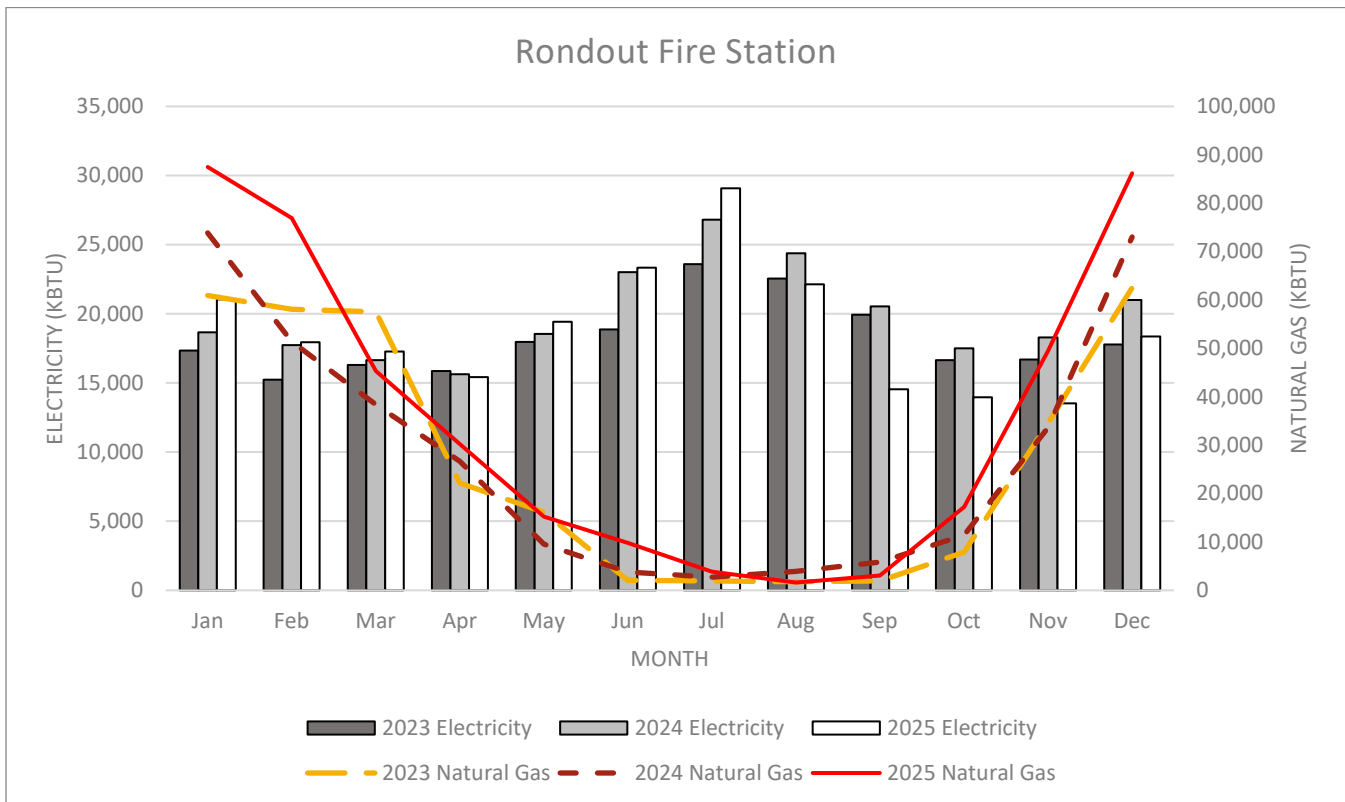
Rondout City Offices



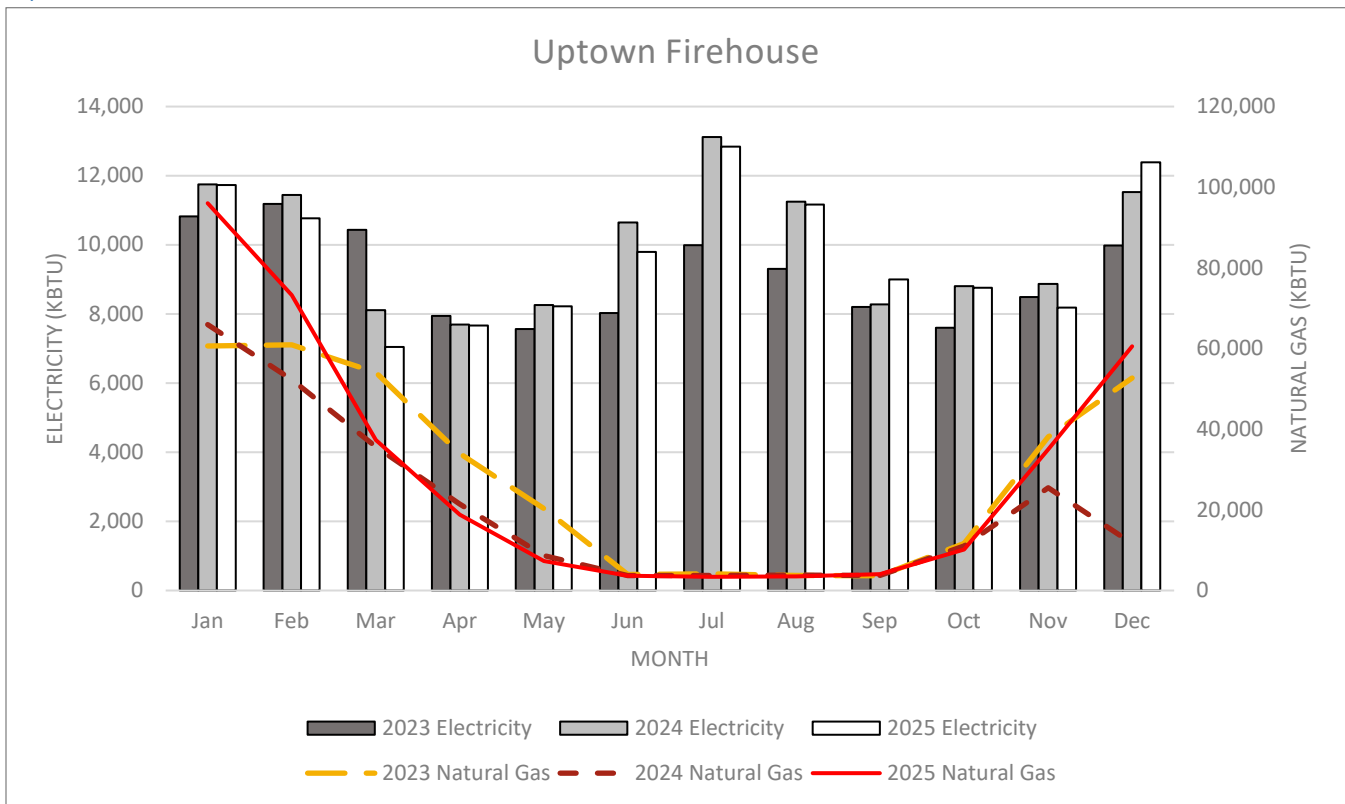
Police Station and Courthouse



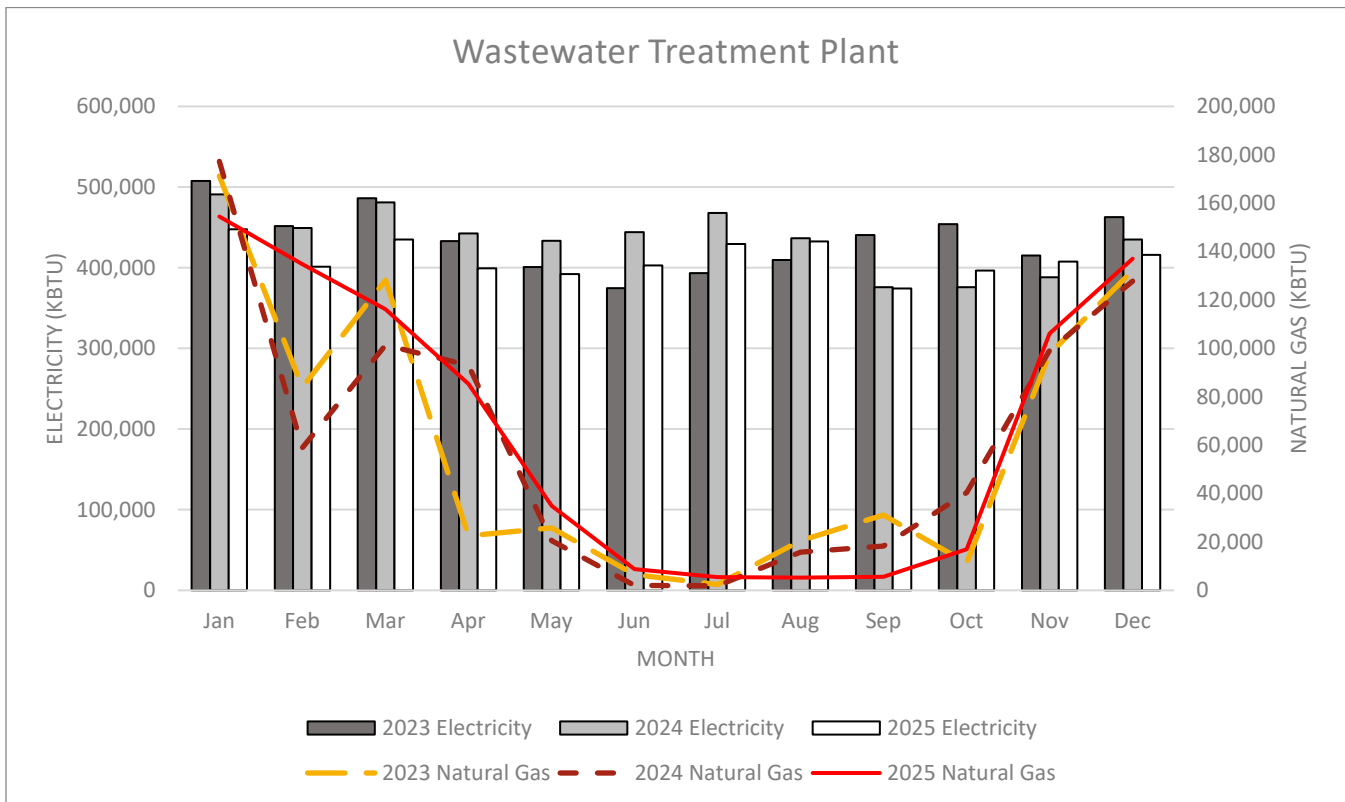
Rondout Fire Station



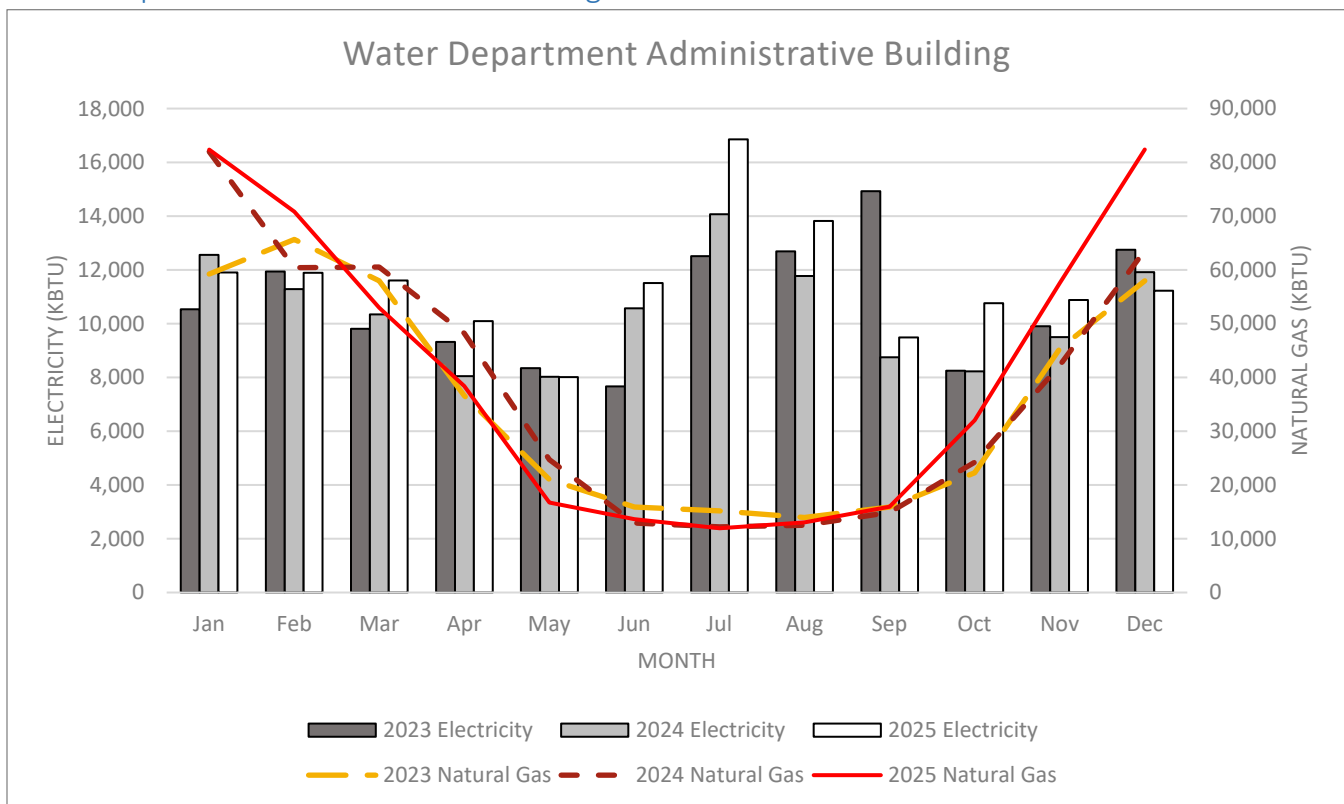
## Uptown Firehouse



## Wastewater Treatment Plant



## Water Department Administrative Building



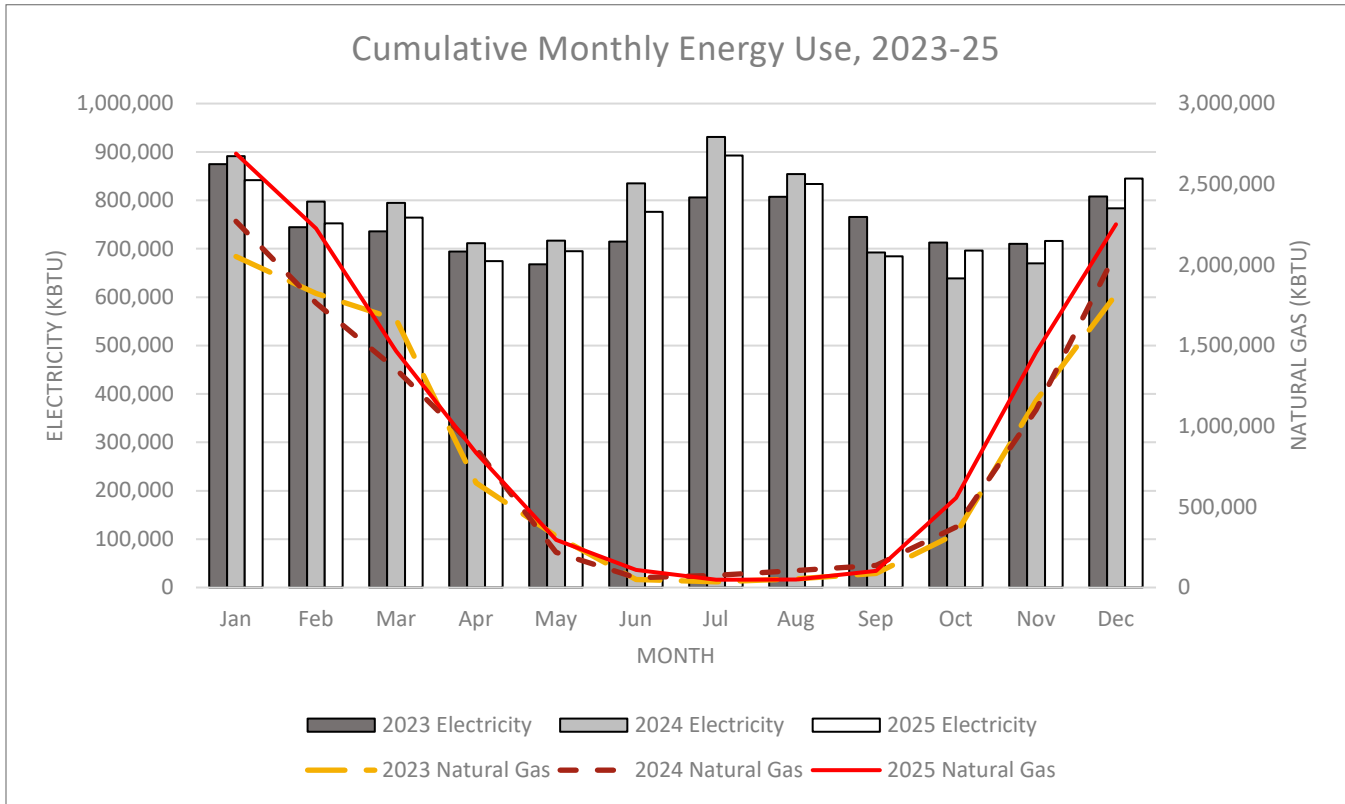
## Individual Property Trends

Below, we note a few trends observed in individual properties' energy consumption:

- The DPW Bus Wash consumes a very small amount of electricity. The 2025 total electric use for this property was 55 kWh, approximately a tenth the average monthly electricity use for a home in New York State.
- The Rondout City Offices building consumed significantly more electricity in the summers of 2024 and 2025 compared to previous years because staff were temporarily moved there during renovation of the Andy Murphy Neighborhood Center. Starting in 2024, staff and tenants established permanent offices there.
- The Andretta Pool consumed more electricity in the winter of 2023-24 because contractors working on the nearby Dietz Stadium had their trailers hooked up to this property.
- The DPW Building on Wilbur Ave consumed more electricity starting in winter 2023-24 than previously because the brine system was back up and running and diesel trucks were plugged in after electrical cords were repaired.
- The DPW Admin building consumed more electricity starting winter 2025-26 following the installation of electric resistance heaters and an increase in staff size over previous years.
- The DPW Bus Garage consumed more electricity starting winter 2025-26 after block heaters for trucks were repaired and 6 natural gas heaters with fans were repaired.

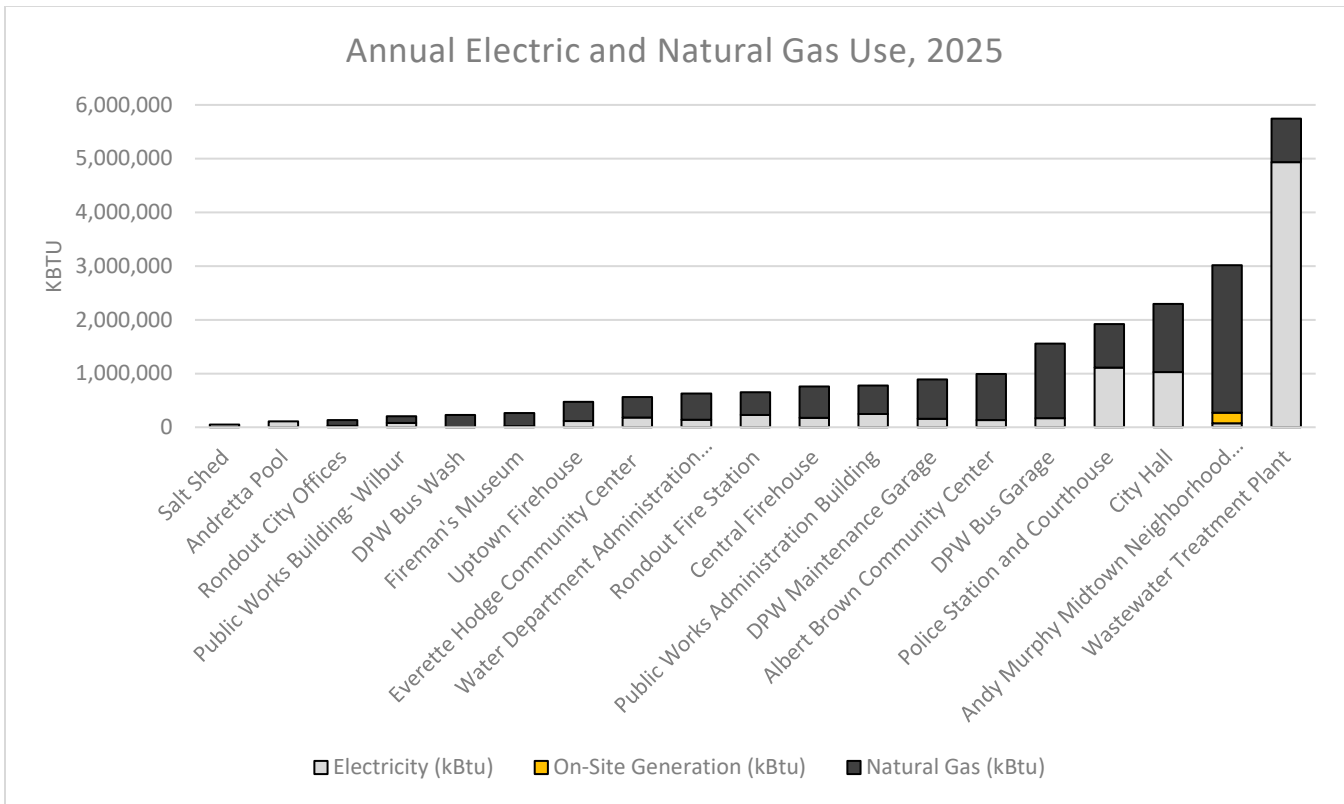
## Cumulative Data

The graph below is a representation of the cumulative monthly energy use information for the entire municipal building portfolio in this report. As with the individual graphs, the left axis is scaled to electricity kBtu usage, while the right axis is scaled to natural gas kBtu usage.



Municipal electricity use exhibits minor fluctuations with slightly decreased use during spring and fall months. Natural gas use exhibits major fluctuations, with little used during summer months, and a lot during winter months.

The graph below details total energy use per building, represented from lowest energy user to highest energy user for 2025.



The highest energy use for a benchmarked property in 2025 was the Wastewater Treatment Plant at **5,745,227 kBTU**, followed by the AMNC and City Hall, with totals amounting to **3,019,247 kBTU** and **2,294,419 kBTU** respectively.

The AMNC, DPW Bus Garage, and Rondout Neighborhood Center consume the most natural gas, while the Wastewater Treatment Plant, Police Station and Courthouse, and City Hall consume the most electricity.

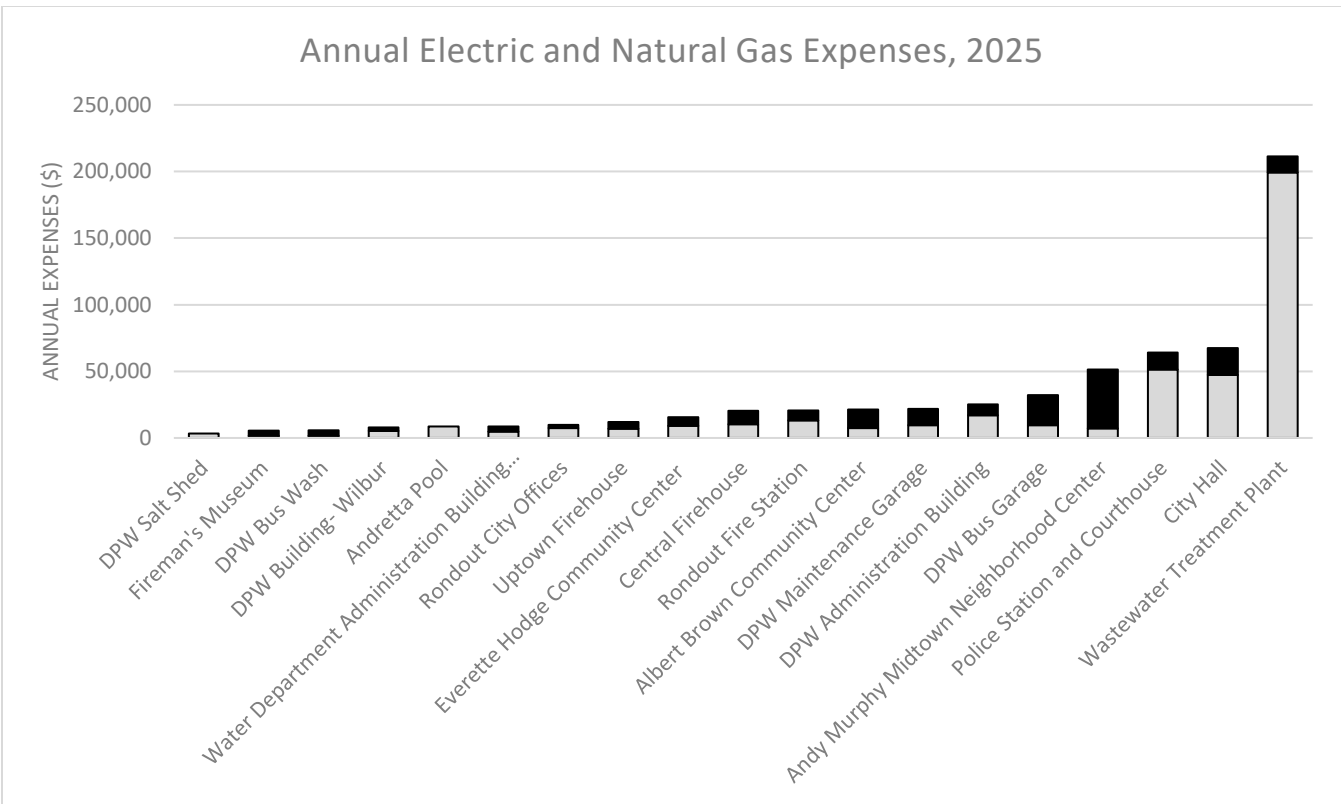
For 14 of the 19 buildings tracked in this report, more than half their energy consumption is from natural gas. Six, including the Fireman’s Museum, Rondout City Offices, DPW Bus Wash, DPW Bus Garage, Rondout Neighborhood Center, and AMNC source more than 80% of their energy from on-site burning of natural gas.

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*TOP ENERGY CONSUMERS: Three buildings accounted for approximately half of all benchmarked energy use*

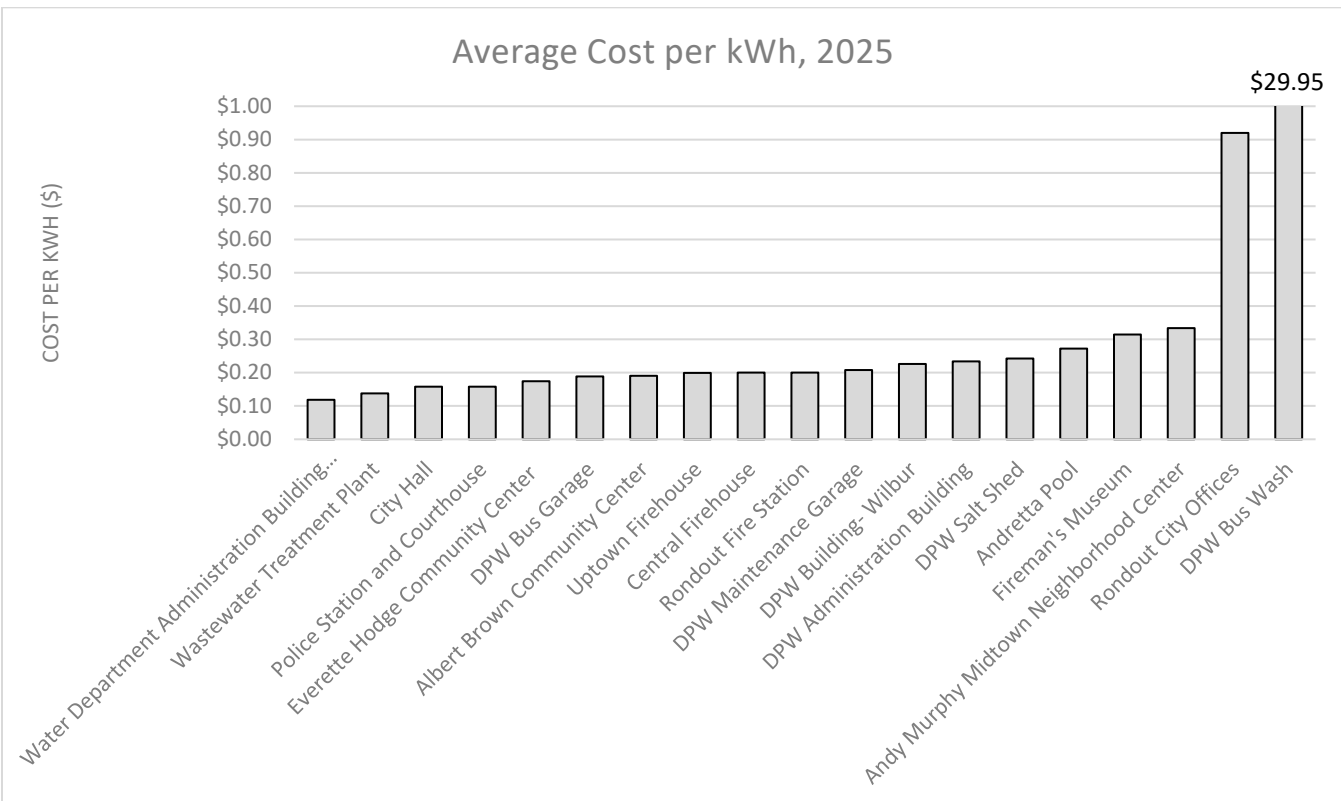
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### Annual Electric and Natural Gas Expenses, 2025



The Wastewater Treatment Plant was by far the most expensive property to operate in 2025 at roughly \$210,000, followed by City Hall, the Police Station and Courthouse, and the Andy Murphy Neighborhood Center, each in the \$50,000–\$70,000 range. The remaining 15 buildings each cost under \$35,000 annually, with several costing only a few thousand dollars.

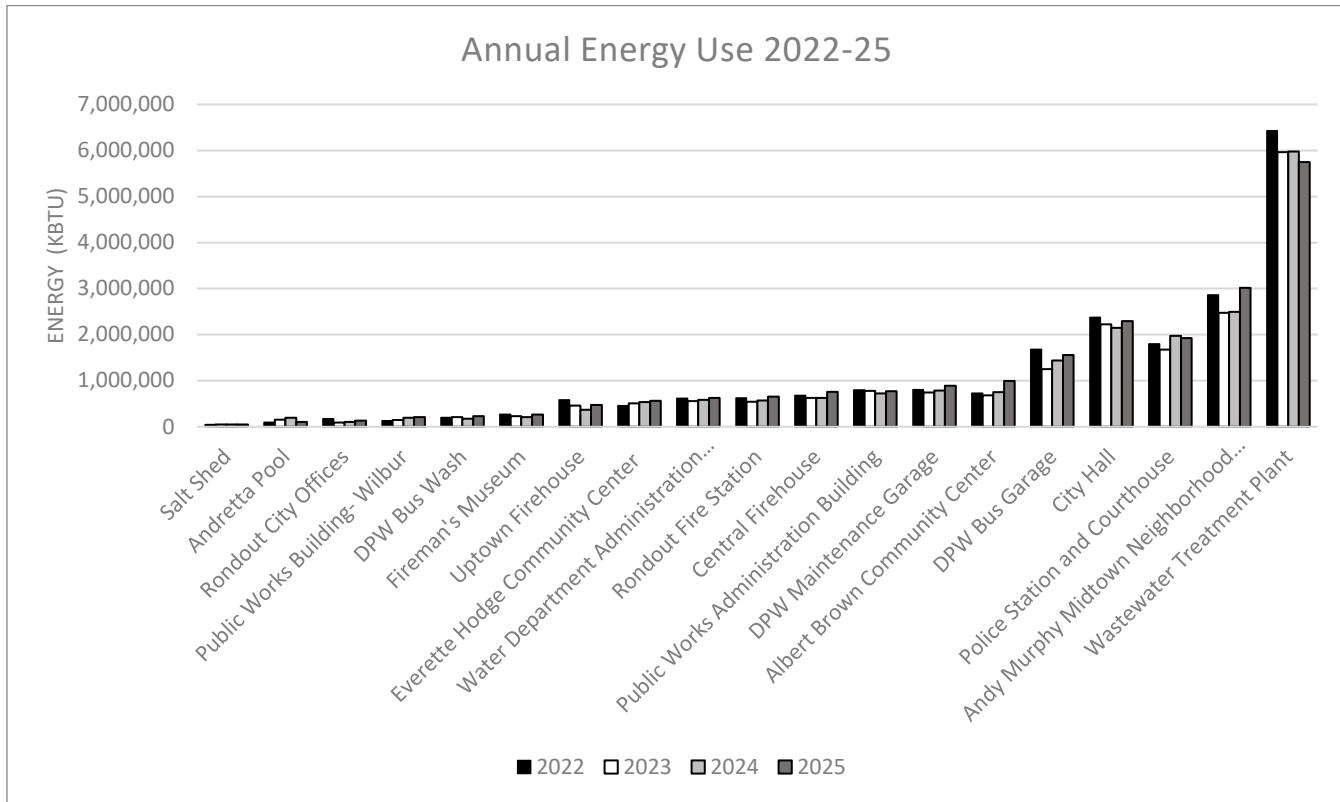
### Average Cost per kWh, 2025



Most municipal buildings paid between \$0.10 and \$0.35 per kWh on average in 2025. The Water Department Administration Building and Wastewater Treatment Plant received the best rates at around \$0.12/kWh. The two

dramatic outliers are the Rondout City Offices at roughly \$0.91/kWh and the DPW Bus Wash at \$29.95/kWh. Both buildings used small amounts of electricity, meaning demand fees dominated their per-kWh cost.

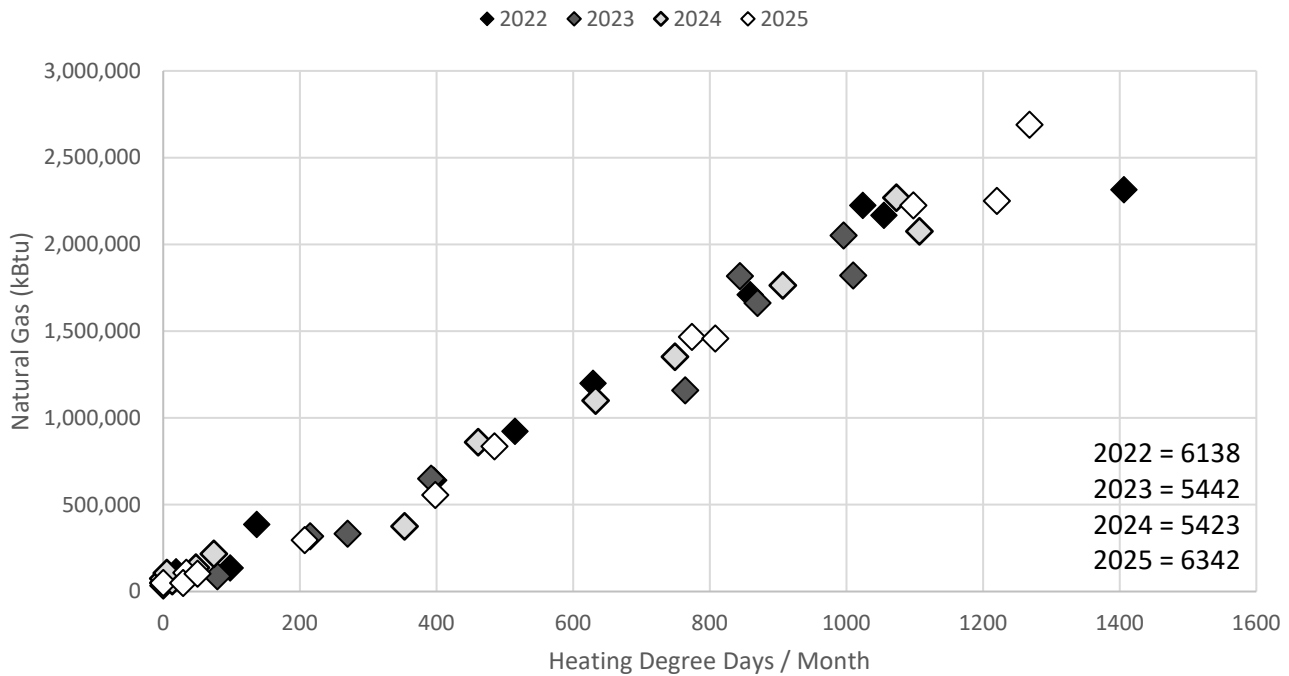
The graph below shows cumulative annual energy use (combined grid electricity, natural gas, and solar) for benchmarked buildings from 2022-2025.



Energy use trends from 2022-2025 varied across the buildings surveyed. Notably, most properties saw a decrease in energy use from 2022-2023.

The graph below shows monthly natural gas use relative to heating degree days (HDD = 65°F – Mean Daily Temperature) in Albany for 2022-25.

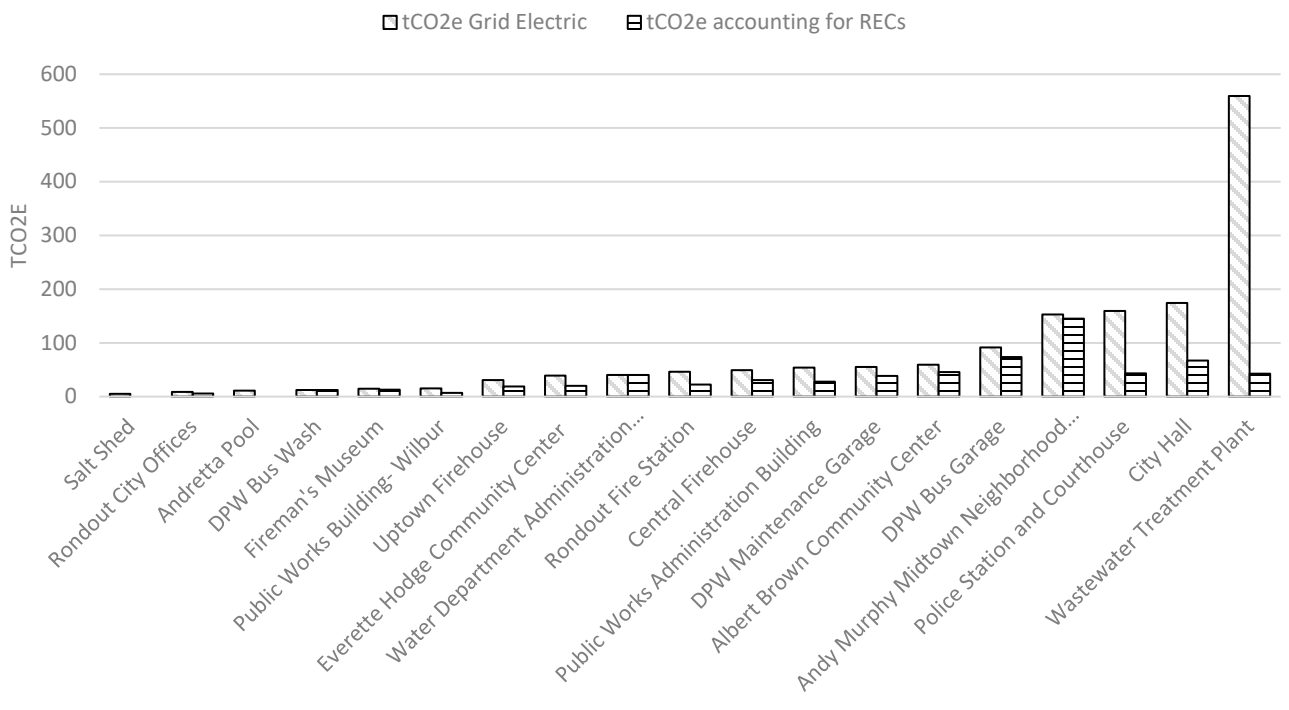
### Monthly Natural Gas Use vs. Heating Degree days



Every year surveyed in this report shows a strong linear trend between heating degree days and natural gas use in municipal buildings. As building heating is electrified and building envelopes are upgraded, there will be less demand for natural gas and the slope of this trend is expected to decrease.

The graph below shows estimated greenhouse gas emissions from benchmarked building's energy use in 2025.

### tCO2e From Building Energy Use



Greenhouse gas emissions are estimated first using the emissions intensity of grid electricity<sup>1</sup> and second, based on the City’s purchase of Renewable Energy Certificates (RECs).<sup>2</sup> All properties, except the Water Department Administration Building, purchase RECs to cover their electricity usage.

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*GREENHOUSE GAS EMISSIONS:  
Benchmarked buildings emitted  
~1,578 tCO<sub>2</sub>e in 2025, equivalent to  
the annual emissions from 360  
passenger vehicles.*

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Using the emissions intensity of grid electricity, the cumulative annual greenhouse gas emissions from each property closely align with total energy use. The greatest emissions come from the Wastewater Treatment Plant, with ~560 tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions in 2025. City Hall had the second highest emissions in 2025, with ~174 tCO<sub>2</sub>e produced. The total CO<sub>2</sub>e emissions for all benchmarked buildings in 2025 was ~**1578 tCO<sub>2</sub>e**, equivalent to the yearly emissions of 360 passenger vehicles in the USA.<sup>3</sup>

Building greenhouse gas emissions differ significantly from total energy use if REC purchases are accounted for. In this case, natural gas consumption dominates building emissions, with the Andy Murphy Neighborhood Center producing the most, at ~145 tCO<sub>2</sub>e produced. The total CO<sub>2</sub> emissions for all benchmarked buildings in 2025, when taking REC purchases into account, was ~**658 tCO<sub>2</sub>e**, equivalent to the yearly emissions of 153 passenger vehicles in the USA.<sup>3</sup>

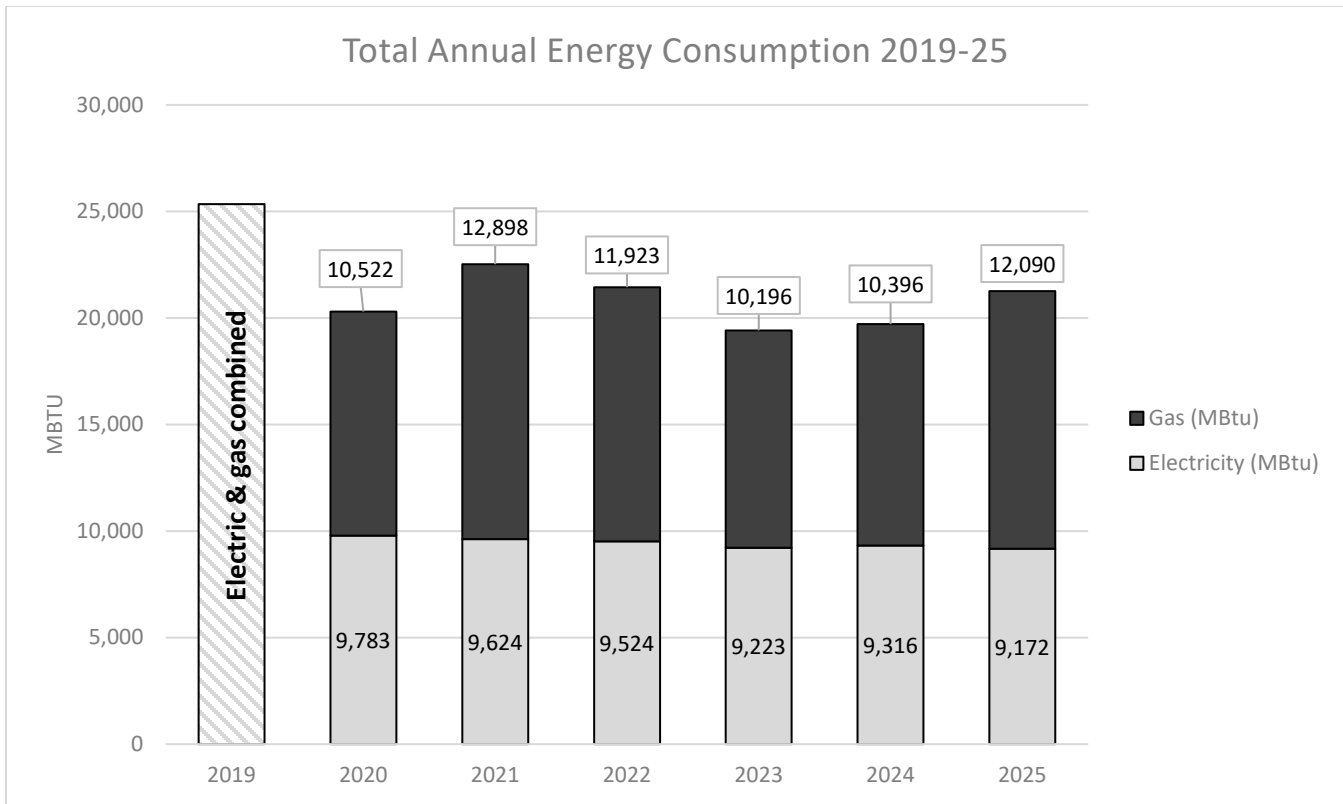
The graph below shows total annual energy use for benchmarked buildings from 2019-2025.

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<sup>1</sup> Electricity and natural gas conversions to tCO<sub>2</sub>e used NY average carbon intensity estimates supplied by the federal government. Gas = 0.00005291 tCO<sub>2</sub>/kbtu ; Electric = 0.00010471 tCO<sub>2</sub>/kbtu.

<sup>2</sup> See the City of Kingston’s Municipal Operations Energy Report for more info.

<sup>3</sup> <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>



In **2025**, benchmarked buildings consumed **9,172 MBtu** of electricity, a 2% decrease year over year, and **12,090 MBtu** of natural gas, a 16% increase year over year. Total energy use in 2025 was **21,262 MBtu**, an increase of 8% year over year. Compared to 2019, benchmarked municipal buildings consumed 15% less energy in 2025.

*ENERGY USE TRENDS: Total energy use decreased 15% from 2019-2025, but increased by 8% from 2024-2025*

### Annual Energy Consumption Actions:

Energy use by benchmarked municipal buildings has declined when compared to 2019 but has been increasing from 2023-2025. While there are many reasons for this reduction, we outline a few sustainability initiatives that increased energy efficiency during this time.

#### 2019

- LED retrofit of building lights.

#### 2020

- Air source heat pumps installed at Albert Brown Community Center.
- City Hall windows replaced.

#### 2021

- No documented energy consumption actions

#### 2022

- WWTP upgrades necessitated the use of temporary aeration blowers that may have increased electricity consumption
- 49 kW solar array installed at AMNC

#### 2023

- New WWTP aeration blowers installed near the end of 2023

- First full year of solar production at AMNC

2024

- No documented energy consumption actions

2025

- No documented energy consumption actions

Upcoming actions

- 50 kW Albert Brown Community Center solar array connected
- 20 kW Andretta Pool solar array connected

## Conclusions

By identifying the largest consumers of energy within the City of Kingston’s benchmarked facilities, the City can focus efforts to continue a downward trend in overall energy use. The Wastewater Treatment Plant, AMNC, and City Hall are the three buildings with the highest overall energy use and should be a primary focus of future efficiency efforts. At the same time, buildings with small energy budgets and a heavy reliance on natural gas are prime targets for the electrification of heating.

Energy use data from this report provides the City of Kingston with the information necessary to increase operational efficiency, effectively use taxpayer resources, and inform further energy conservation policy and program development. The City of Kingston continues to set progressive targets for energy reduction through strategic efforts focusing on energy conservation and sustainable operations.

For more information on other sustainability initiatives in the City of Kingston please visit:  
<https://www.kingston-ny.gov/Sustainability>

## Appendix

| Property Name   | 2025 Electricity (kWh) | 2025 Peak Electricity Demand (kW) | 2025 Electricity Cost (\$) | 2025 Natural Gas (Ccf) | 2025 Natural Gas Cost (\$) |
|---|------------------------|-----------------------------------|----------------------------|------------------------|----------------------------|
| Albert Brown Community Center                                   | 39,180                 | 18                                | \$8,059.56                 | 8,387                  | \$11,760.35                |
| Andretta Pool   | 31,377                 | 38                                | \$8,438.12                 | 0                      | 0                          |
| Andy Murphy Midtown Neighborhood Center (AMNC)                  | 21,208                 | 28.8                              | \$6,780.83                 | 26,771                 | \$42,653.00                |
| Central Firehouse   | 51,914                 | 21.7                              | \$10,226.97                | 5,668                  | \$7,945.32                 |
| City Hall   | 300,314                | 120                               | \$47,195.62                | 12,376                 | \$16,825.54                |
| DPW Bus Garage  | 50,008                 | 18                                | \$9,053.92                 | 13,535                 | \$18,394.70                |
| DPW Bus Wash  | 56                     | 9.3                               | \$1,804.44                 | 2,234                  | \$3,428.98                 |
| DPW Maintenance Garage  | 45,940                 | 19.2                              | \$9,585.89                 | 7,123                  | \$9,872.87                 |
| Everette Hodge Community Center                                 | 52,845                 | 18.4                              | \$10,833.07                | 3,717                  | \$10,106.73                |
| Fireman's Museum  | 5,203                  | Not recorded                      | \$1,540.77                 | 2,388                  | \$3,645.91                 |
| Police Station and Courthouse                                   | 325,080                | 110.4                             | \$51,336.35                | 7,933                  | \$10,924.66                |
| Public Works Administration Building                            | 72,378                 | 58.6                              | \$14,455.93                | 5,153                  | \$7,241.09                 |
| Public Works Building- Wilbur                                   | 22,965                 | 10.4                              | \$5,199.36                 | 1,256                  | \$2,153.80                 |
| Rondout Offices   | 8,137                  | Not recorded                      | \$2,178.73                 | 1,033                  | \$1,854.87                 |
| Rondout Fire Station  | 66,250                 | 31.2                              | \$13,436.16                | 4,158                  | \$5,976.84                 |
| Salt Shed   | 14,085                 | Not recorded                      | \$3,416.82                 | 0                      | 0                          |
| Uptown Firehouse  | 34,452                 | 14.3                              | \$7,521.73                 | 3,440                  | \$5,010.98                 |
| Wastewater Treatment Plant                                      | 1,446,073              | 388                               | \$208,750.35               | 7,907                  | \$11,495.14                |
| Water Department Administration Building and Maintenance Garage | 40,461                 | 16.5                              | \$4,782.78                 | 4,755                  | \$3,614.47                 |
| <b>Total</b>  | <b>2,627,925</b>       | <b>N/A</b>                        | <b>\$424,597.40</b>        | <b>117,832</b>         | <b>\$172,905.25</b>        |

Table 1. Electricity and natural gas consumption data and expenses for benchmarked buildings in 2025.

| Property Name   | 2023 Electricity (kbtu) | 2023 Natural Gas (kbtu) | 2024 Electricity (kbtu) | 2024 Natural Gas (kbtu) | 2025 Electricity (kbtu) | 2025 Natural Gas (kbtu) |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Albert Brown Community Center                                   | 122,989                 | 560,541                 | 115,885                 | 633,462                 | 133,684                 | 860,556                 |
| Andretta Pool   | 147,763                 | 0                       | 196,811                 | 0                       | 107,058                 | 0                       |
| Andy Murphy Midtown Neighborhood Center (AMNC)                  | 202,045                 | 2,270,635               | 275,218                 | 2,219,719               | 272,577                 | 2,746,670               |
| Central Firehouse   | 153,453                 | 476,269                 | 178,259                 | 447,970                 | 177,129                 | 581,556                 |
| City Hall   | 948,672                 | 1,276,055               | 1,017,555               | 1,129,336               | 1,024,671               | 1,269,747               |
| DPW Bus Garage  | 147,346                 | 1,106,131               | 160,525                 | 1,279,633               | 170,626                 | 1,388,685               |
| DPW Bus Wash  | 289                     | 207,757                 | 194                     | 177,474                 | 191                     | 229,159                 |
| DPW Maintenance Garage  | 193,425                 | 550,592                 | 185,244                 | 598,647                 | 156,748                 | 730,842                 |
| Everette Hodge Community Center                                 | 180,549                 | 377,158                 | 179,829                 | 359,510                 | 180,307                 | 381,344                 |
| Fireman's Museum  | 9,579                   | 221,772                 | 12,691                  | 198,458                 | 17,754                  | 244,975                 |
| Police Station and Courthouse                                   | 1,091,763               | 585,121                 | 1,139,110               | 831,971                 | 1,109,174               | 813,890                 |
| Public Works Administration Building                            | 237,916                 | 542,387                 | 212,077                 | 508,975                 | 246,955                 | 528,712                 |
| Public Works Building-Wilbur                                    | 41,383                  | 105,268                 | 68,738                  | 129,064                 | 78,357                  | 128,836                 |
| Rondout Offices   | 8,821                   | 81,001                  | 19,320                  | 85,211                  | 27,764                  | 105,955                 |
| Rondout Fire Station  | 218,790                 | 327,653                 | 238,773                 | 334,150                 | 226,044                 | 426,597                 |
| Salt Shed   | 47,330                  | 0                       | 50,621                  | 0                       | 48,057                  | 0                       |
| Uptown Firehouse  | 109,549                 | 347,801                 | 119,755                 | 247,202                 | 117,550                 | 352,944                 |
| Wastewater Treatment Plant                                      | 5,228,995               | 733,275                 | 5,220,787               | 756,350                 | 4,934,001               | 811,226                 |
| Water Department Administration Building and Maintenance Garage | 128,634                 | 427,021                 | 125,081                 | 458,519                 | 138,052                 | 487,858                 |
| <b>Total</b>  | <b>9,222,782</b>        | <b>10,196,437</b>       | <b>9,516,473</b>        | <b>10,395,652</b>       | <b>9,166,697</b>        | <b>11,401,361</b>       |

Table 2. Annual electricity and natural gas consumption data in kBTu for benchmarked buildings.