

# Township Of Bonnehchere Valley



## 5 Year Energy Management Plan 2025 - 2030

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# Executive Summary

The Township of Bonnechere Valley Multi-Year Energy Management Plan 2025-2030 outlines the initiatives the Township has taken and plans to take to ensure compliance with Ontario Regulation 25/23. Our plan describes the measures the Township has taken in the past and will take during the current and subsequent years for conserving and otherwise reducing energy consumption and managing our demand for energy.

The former Ontario Green Energy Act Regulation 397/11 (Now Ontario Regulation 25/23) requires Municipalities to report their 'goals and objectives' for conserving and otherwise reducing energy consumption and managing its demand for energy.

Every public agency shall publish on its website and intranet site a summary of:

- its annual energy consumption and greenhouse gas emission for its operations, and
- a description of previous, current and proposed measures for conserving and otherwise reducing the amount of energy consumed by the public agency's operations and for managing the public agency's demand for energy, including a forecast of the expected results of current and proposed measures.

# Approach to Energy Conservation

## Commitment

### Declaration of Commitment

The Township of Bonnechere Valley will use existing resources and leverage outside agencies where appropriate to reduce our energy consumption and its related environmental impact.

### Vision

We are continually reducing our total energy consumption and associated carbon footprint through wise and efficient use of energy and resources, while still maintaining an efficient and effective level of service for our clients and the general public.

### Goals

To maximize the efficient use of the Township's fiscal resources. To minimize negative environmental impact of Township operations.

### Overall Target

In 2018, our total consumption decreased by 7.8% from our 2013 figure. In 2022, we decreased a further 7.8% from 2018. Our target was 15% however we did miss the mark but still continue to decrease. We will reduce our consumption of fuels and electricity in all municipal operations by an average of 2% per year between now and 2029.

### Objectives

To improve the energy efficiency of our facilities by utilizing best practices to reduce our energy consumption and mitigate the impact of energy cost increases. To create a culture of energy conservation among Township staff. To reduce greenhouse gas emissions associated with our energy use we continue to look at more efficient lighting and facility options and funding to study our energy use and install more energy efficient components. To upgrade our Arena and Curling Rink in accordance with our zero emissions study. We continue to apply for funding for this initiative. To Install EV Chargers and purchase an Electric Vehicles in 2025 for a public ride share program to reduce emissions and provide accessible transit to the community.

# Organizational Understanding

## Municipal Energy Situation

The Township of Bonnechere Valley uses three types of energy in its facilities: electricity, fuel oil, and propane. Electricity is currently purchased through Local Authority Service' (LAS) bulk purchase program. LAS, is a subsidiary of the Association of Municipalities of Ontario (AMO). The LAS program is intended to provide municipalities with a hedge against price fluctuations, and therefore save them money on electricity. Fuel oil and propane are currently purchased from McCarthy Fuels located in Killaloe, Ontario.

## How We Manage Energy Today

The Township of Bonnechere Valley has a solid history in energy conservation initiatives. In 2022 we undertook a study to upgrade our lighting for all facilities which would save 27.25KW per year and \$17,000 annually. However the ROI is still higher than we would like it to be and we are continuing to search and apply for funding to assist us in implementing these upgrades. We also received funding to do two studies on the Arena and the Curling Club. In order to implement these initiatives we would need additional funding for capital investment. Should we be able to implement these recommendations the Curling Club would be Net Zero and reduce its GHG% by 100%. The Arena GHG% would be reduced by 86% over 10 years and 98% over 20 years. The annual savings would be \$63,000 for the Arena and \$7000 for the Curling Club. That being said the initial cost is a barrier without funding.

## Summary of Current Energy Consumption, Cost and GHGs

The Township of Bonnechere Valley's energy consumption is driven mainly by the town of Eganville, due to the concentration of several high energy use facilities (i.e. Eganville Arena, Sewage Treatment and Water Filtration Facilities). We have focused on energy reduction in these facilities and are currently pursuing lighting upgrades and Arena improvements.

## Trends in Energy Consumption

In 2018 our consumption was 119.2 kBtu/ft<sup>2</sup> and in 2022 it was 113.3 kBtu/ft<sup>2</sup>. Our lowest consumption was in 2020 at 99.9, likely due to the pandemic and operations being shut down. Although we haven't improved much since 2018, with aging infrastructure and the effects of climate change on extreme weather I am glad we have maintained and even slightly reduced our energy use and hopefully some of our initiatives will be funded in the future to decrease our consumption and costs.

## Renewable Energy Utilized or Planned

The Township of Bonnechere Valley owns the Eganville Generating Corporation, which operates the Eganville Dam. The hydroelectric dam has a capacity 750kW. All electricity generated feeds into the Hydro One electricity grid for which the Township is paid an average rate of 12.5 cents/kWh. The dam is located on the Bonnechere River and is part of a larger hydroelectric system in Renfrew County. The dam has cultural and historic value for Eganville, and generates a significant amount of electricity for the Region. The total electricity generated in recent years is as follows: The Township plans to continue to own and operate the dam. The Township also plans to install EV chargers for the public and purchase an EV for public use.

## Resources Planning

### Energy Leader

The Council, Senior Leadership Team and the CAO are very focused effort on energy management. We meet monthly and are committed to energy initiatives such as upgrades in lighting, and large facility improvements such as the Arena and Curling Club.

## Procurement Planning

### Energy Purchasing

The Township will continue to purchase electricity through Local Authority Services' Electricity Program. Other energy sources (propane, oil) will be purchased through our local suppliers.

## Project Execution

### Municipal Level

On an annual basis the Township will report our energy consumption data to the province. We have recently purchased the LAS Energy Planning Tool with will provide better access to data for Council and the Leadership Team to be able to make critical energy decisions and update our Energy Management Plan.

### Asset Level

With the data and reports available through the LAS EPT we will track and report the implementation of any new energy initiatives. This tool will allow for better measurement of the impact of the actions. Facility energy use will be tracked and communicated on a regular basis to those responsible for the various assets. In addition, the department heads will review current practices of the facilities to ensure consistency across the Township.

## Review

### Energy Plan Review

The Senior Leadership Team will review progress towards the goals and objectives of the Energy Conservation and Demand Management Plan on an annual basis. In addition, progress will be tracked and reviewed in order to evaluate the success of the implemented energy initiatives. To the extent possible, the costs and resulting energy and greenhouse gas savings of each energy initiatives will be calculated as part of the evaluation.

## Evaluation Progress

### Energy Consumption

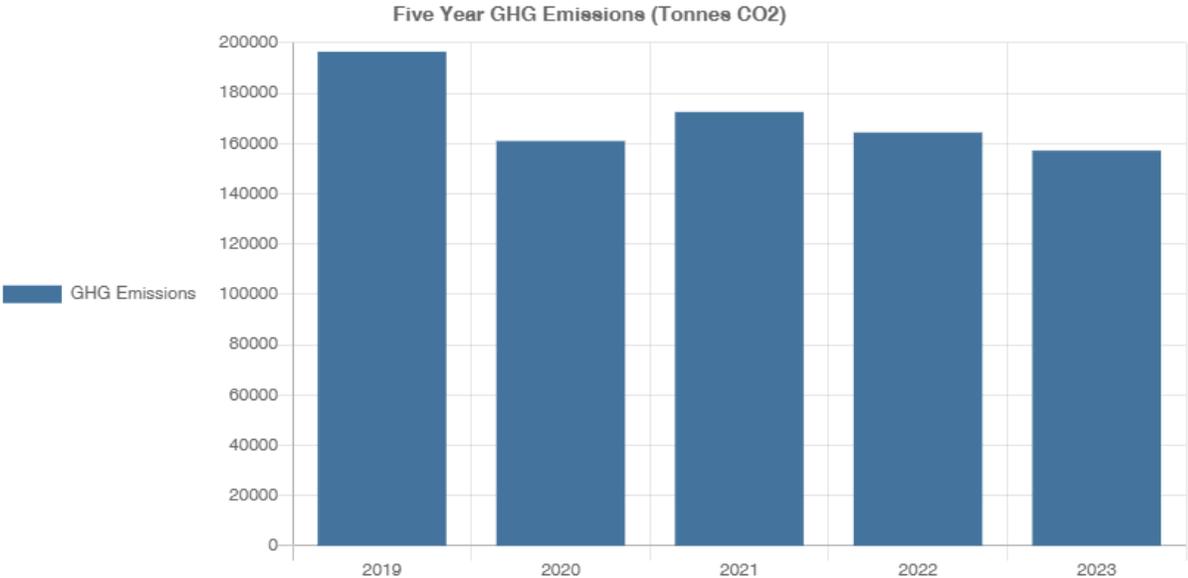
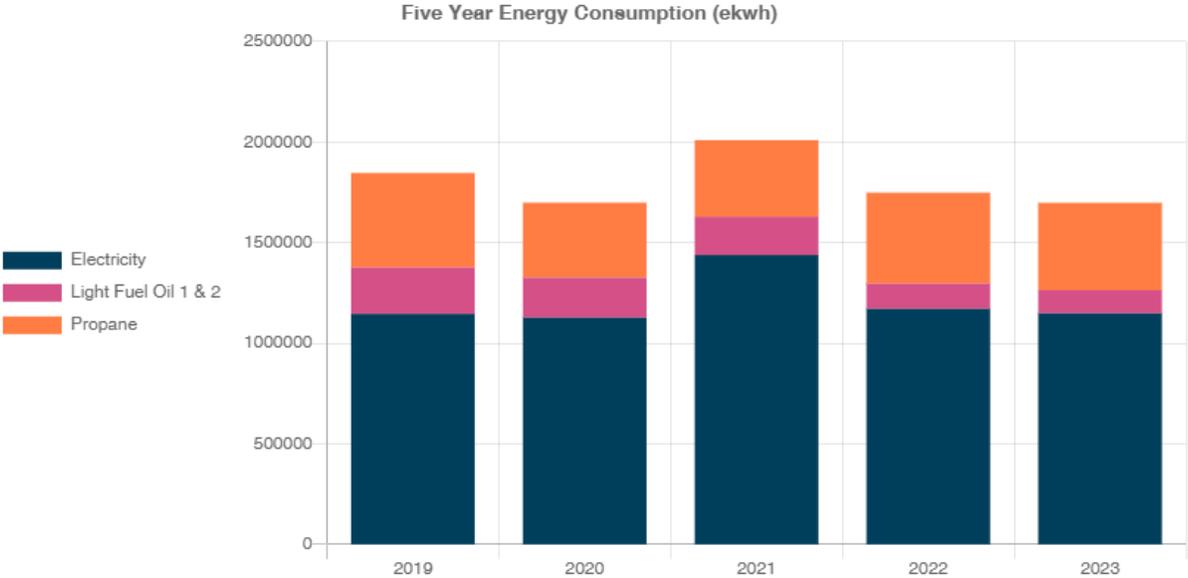
The total energy use intensity of the Township will be measured through each building's annual energy use per unit area. This will be recorded in the Portfolio Manager Energy Star Portal which tracks the thousands of BTU per square foot per year.

# Review of Previous Plan

*Suggested wording:*

Our last CDM plan, covering 2019 to 2023, our goal was to decrease energy consumption by 15% as compared to our baseline year of 2013.

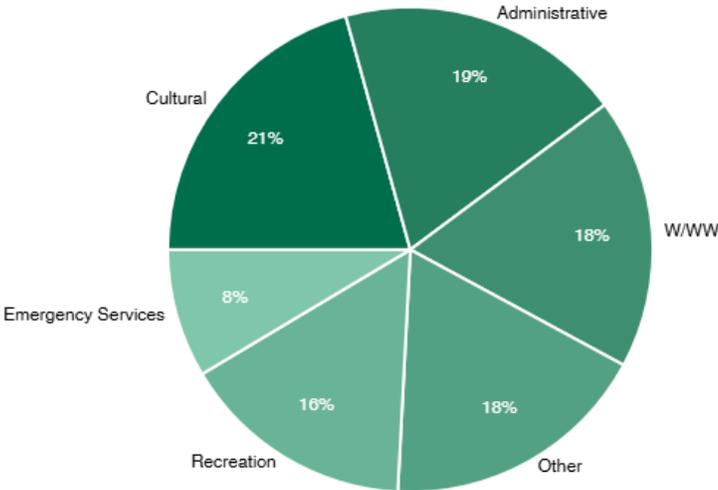
Our real-world consumption resulted in a reduction in energy consumption by 15.6% when compared to the baseline year.



# Current Energy Consumption

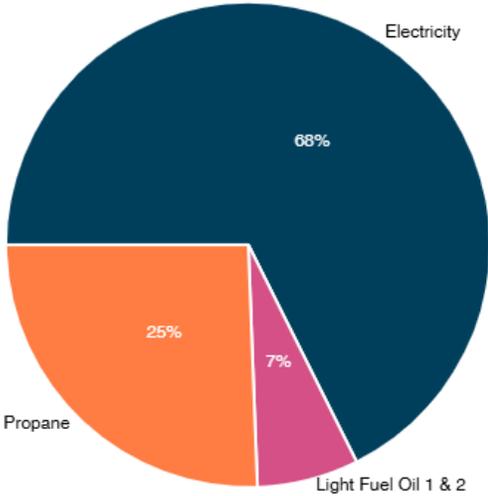
## Energy Trends

Total Energy Use (eKwh) by Building Type (2023)



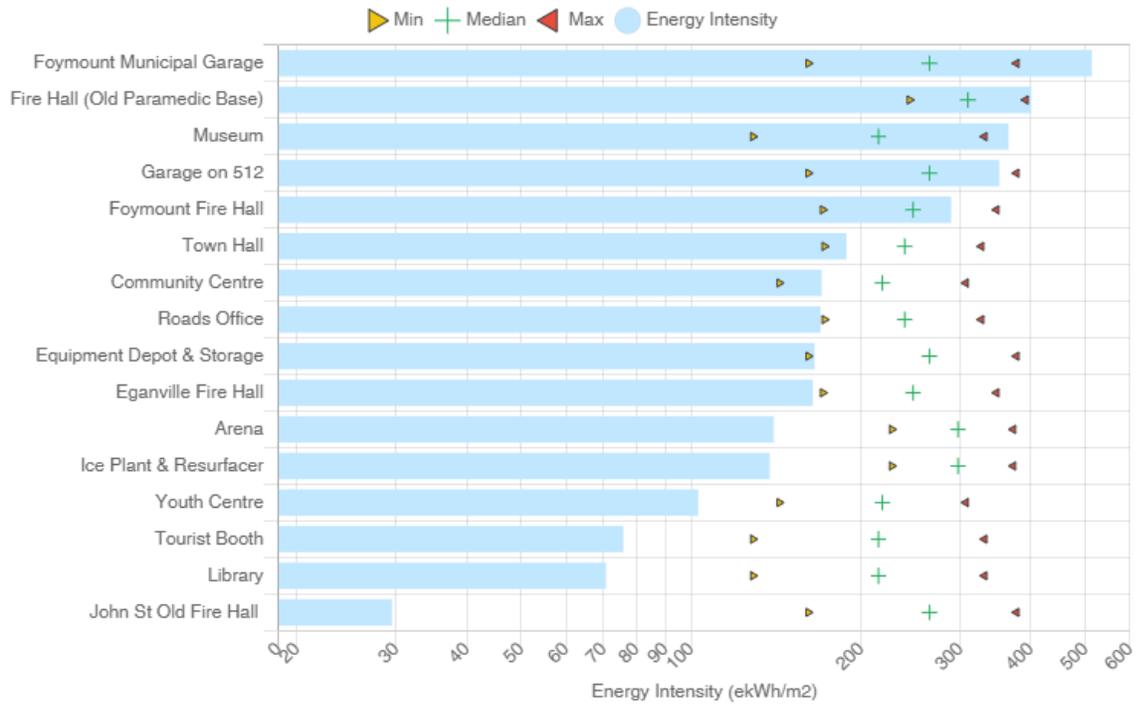
Our largest user of energy was Cultural facilities followed by Administrative, Water and Wastewater and Other.

Total Energy Use (eKwh) by Energy Type (2023)



Our largest source of energy is Electricity, making up 67.6% of the total.

### Energy Intensity with Benchmark - All Facilities Except WW/W (2023)



# Appendix A: Facility Details

## Arena

178B Jane Street

Eganville ON

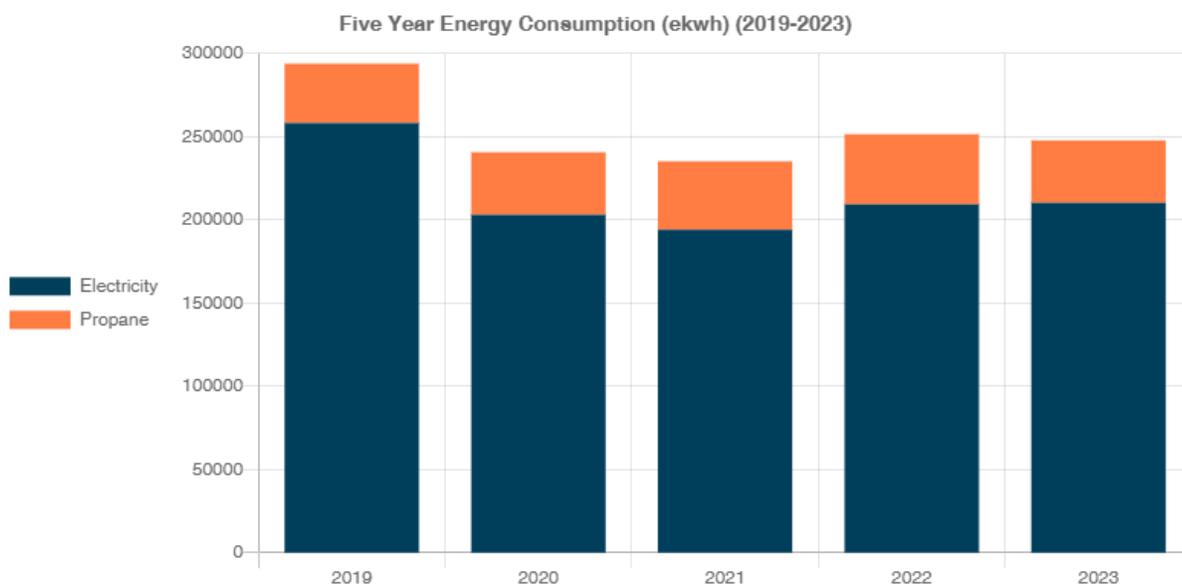
K0J 1T0

Eganville Arena

1789 square meter floor space

1040 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 9.6%



# Community Centre

178A Jane Street

Eganville ON

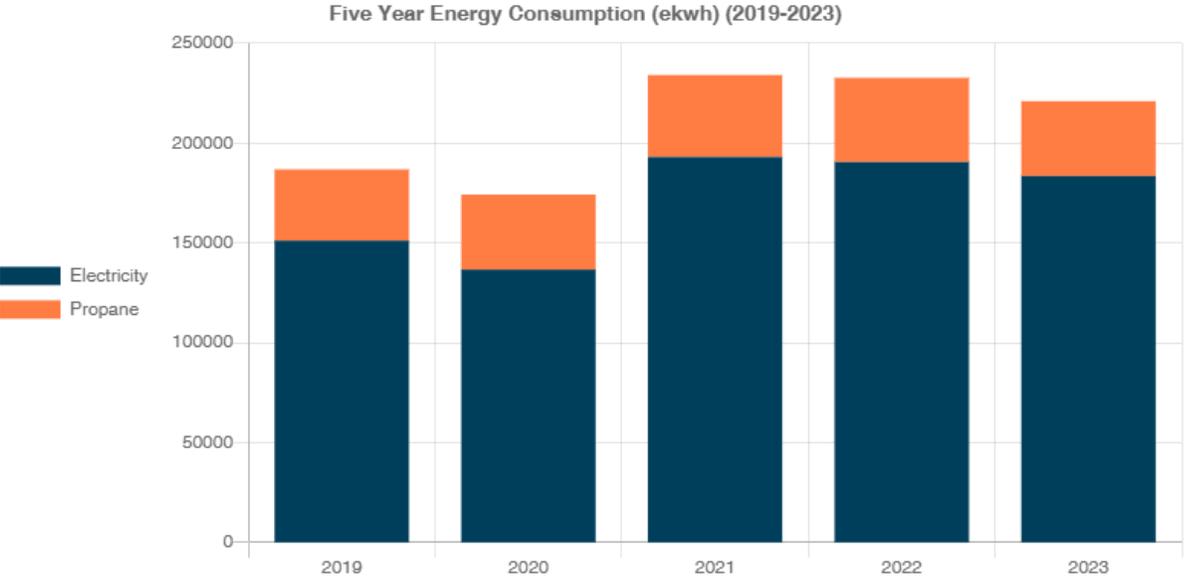
K0J 1T0

Eganville Community Centre

1300 square meter floor space

1040 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 12.0%



# Dewatering Facility

126 John Street

Eganville ON

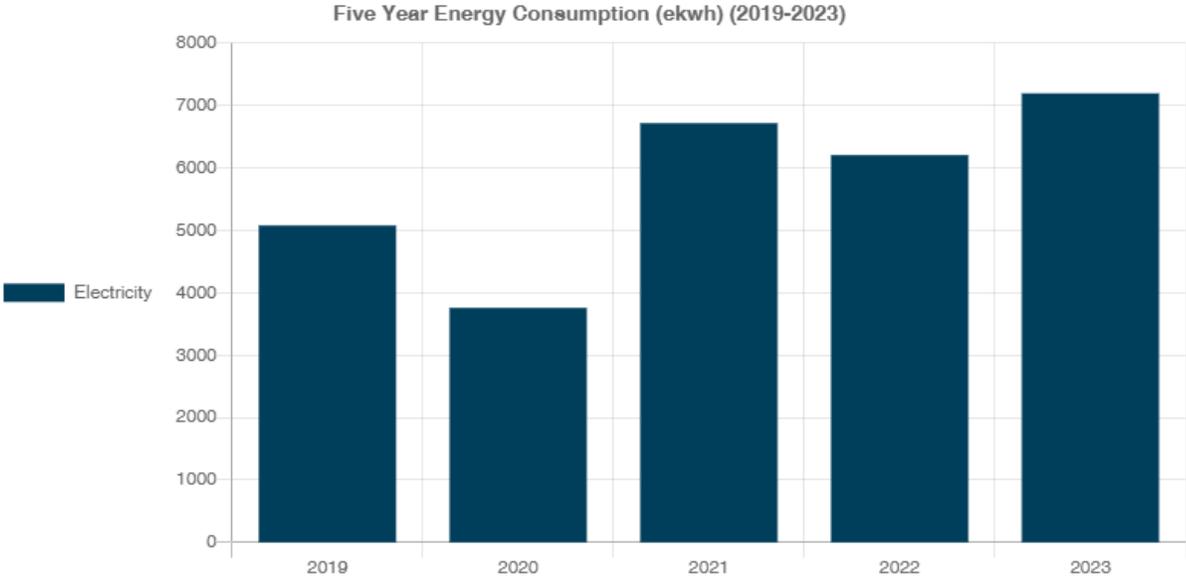
K0J 1T0

Eganville Dewatering Facility

38 square meter floor space

209 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 30.1%



This facility and the Sewage Treatment Plant are both on the same electricity bill. We are looking at changing out all these lights to LEDs and other initiatives to decrease energy consumption and cost.

# Eganville Fire Hall

49 Bonnechere Street East

Eganville ON

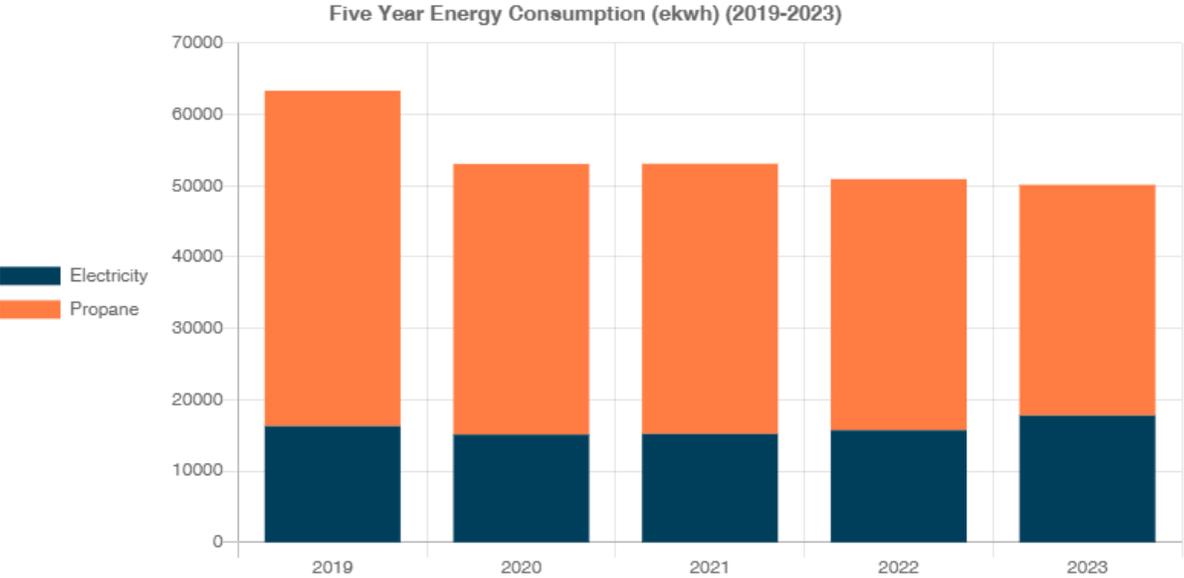
K0J 1T0

Eganville Townhall

305 square meter floor space

156 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 7.4%



# Equipment Depot & Storage

145 John Street

Eganville ON

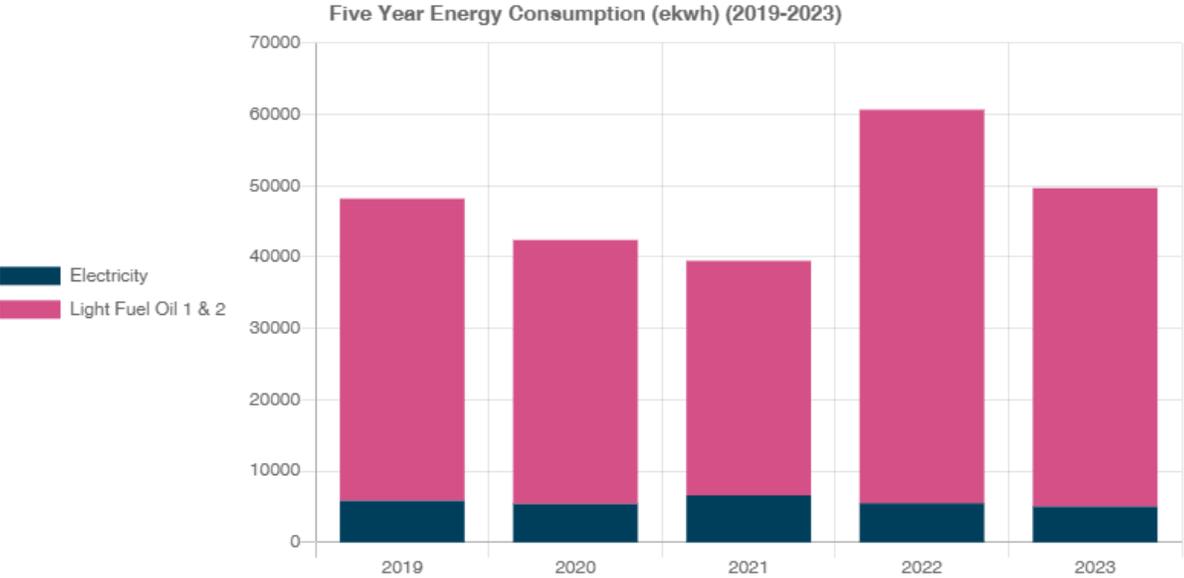
K0J 1T0

Eganville Storage

302 square meter floor space

1560 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 7.5%



# Fire Hall (Old Paramedic Base)

49 Bonnechere Street East

Eganville ON

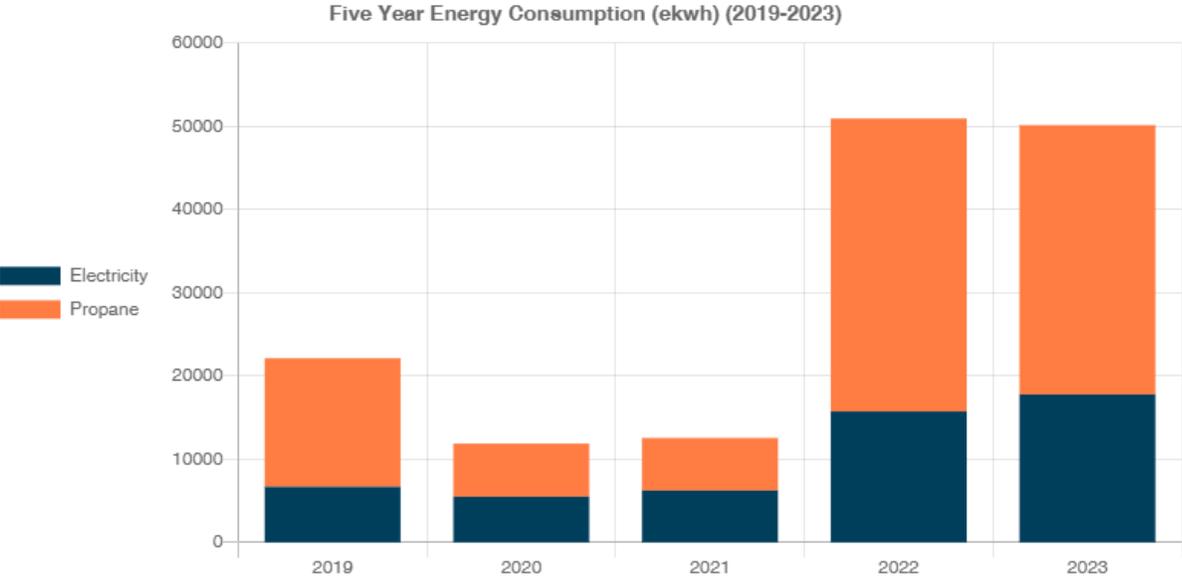
K0J 1T0

Eganville Townhall

125 square meter floor space

8760 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 89.9%



This electricity bill used to include a storage portion that was broken out separately. It has now been combined therefore this is not an accurate increase. We will review again in 5 years time.

# Foymount Fire Hall

122 Janet Road

Foymount ON

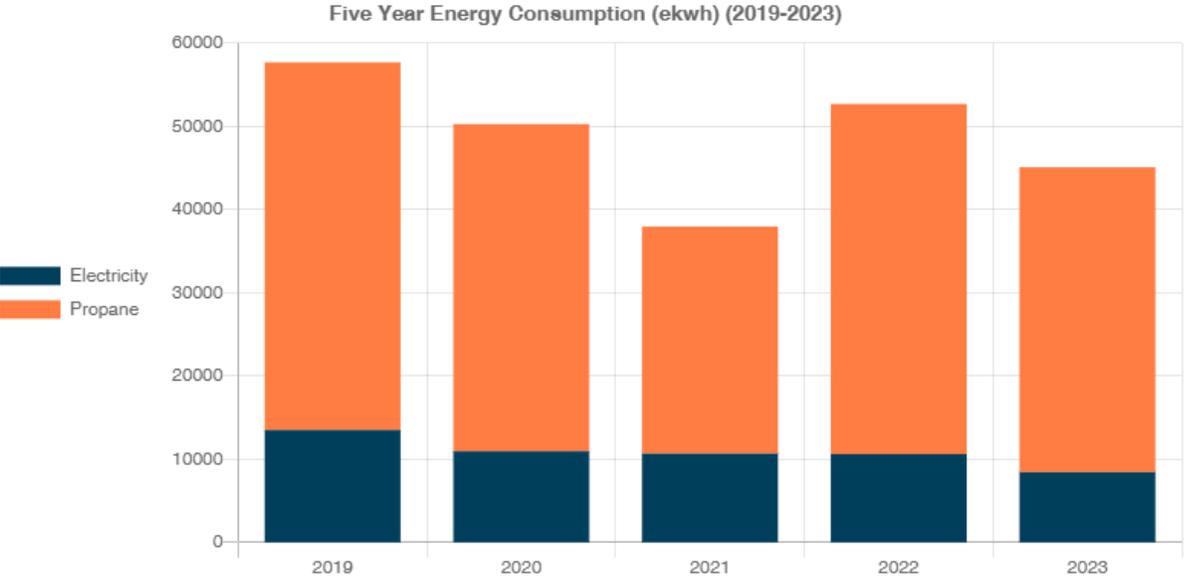
K0J 1W0

Foymount Fire Hall

156 square meter floor space

261 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 39.5%



# Foymount Municipal Garage

122 Janet Road

Foymount ON

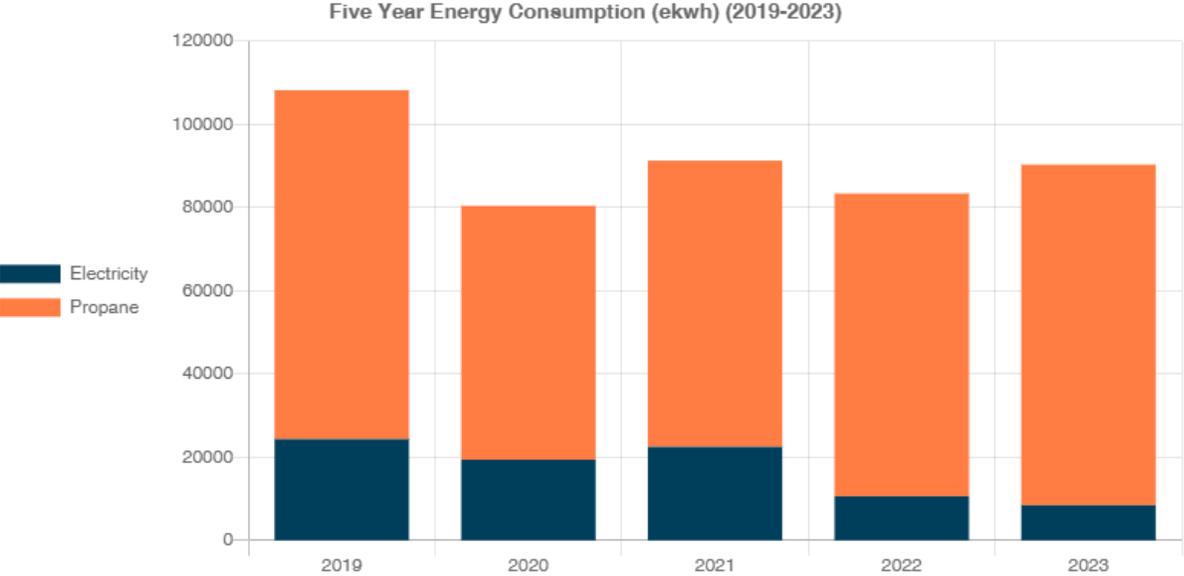
K0J 1W0

Foymount Garage

176 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 7.2%



# Garage on 512

294 Highway 512

Gratton ON

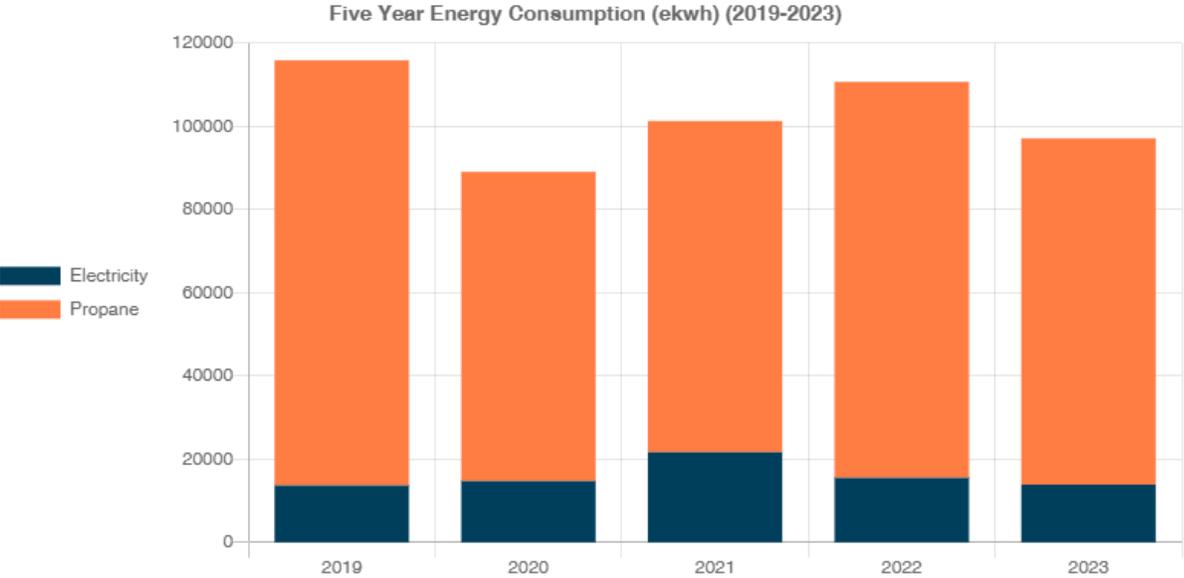
K0J 2A0

Public works Garage & Office

279 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 0.7%



# Ice Plant & Resurfacer

178B Jane Street

Eganville ON

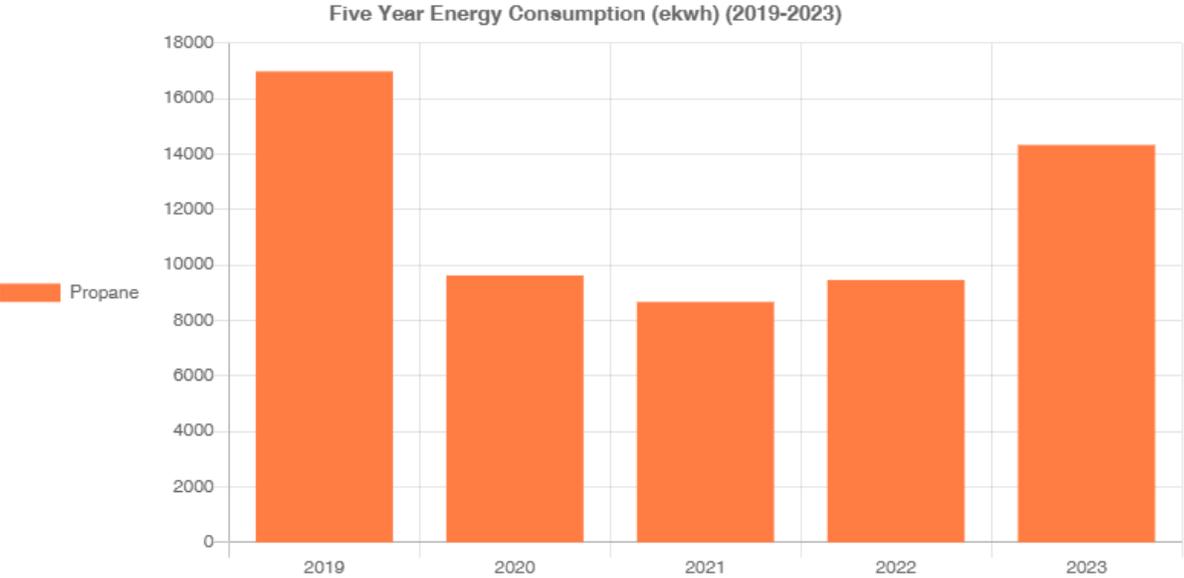
K0J 1T0

Eganville Arena Mechanical

104 square meter floor space

1040 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 58.6%



# John St Old Fire Hall

165 John Street

Eganville ON

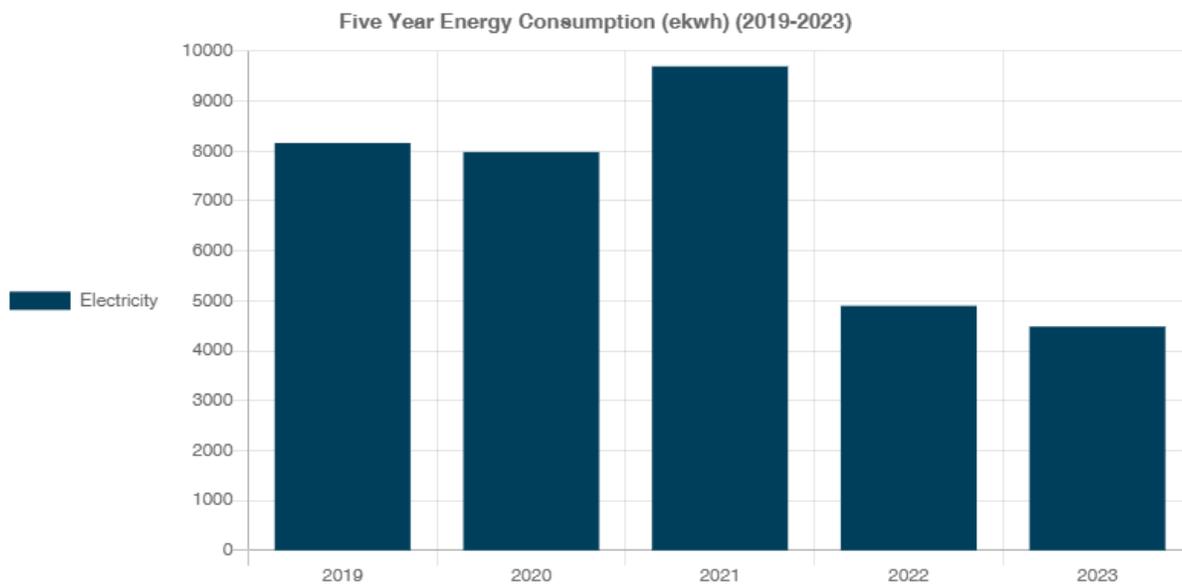
K0J 1T0

Storage & Boiler Room

152 square meter floor space

1560 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 42.3%



# Leased Portion (Food Bank)

165 John Street

Eganville ON

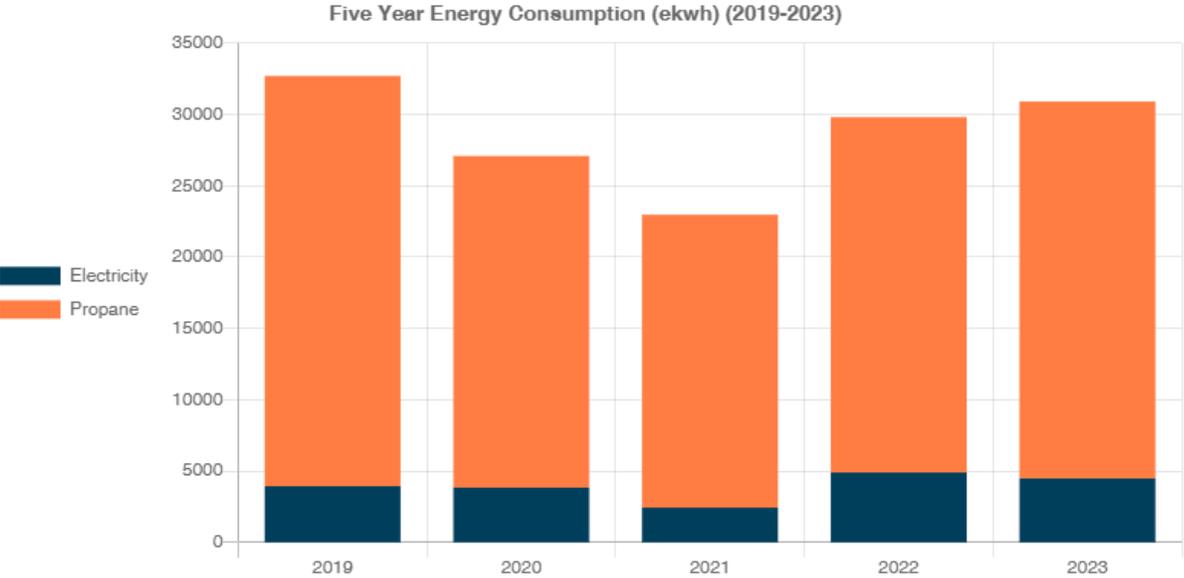
K0J 1T0

Eganville Storage and Studio

60 square meter floor space

468 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 12.4%



# Library

75 Wallace Street

Eganville ON

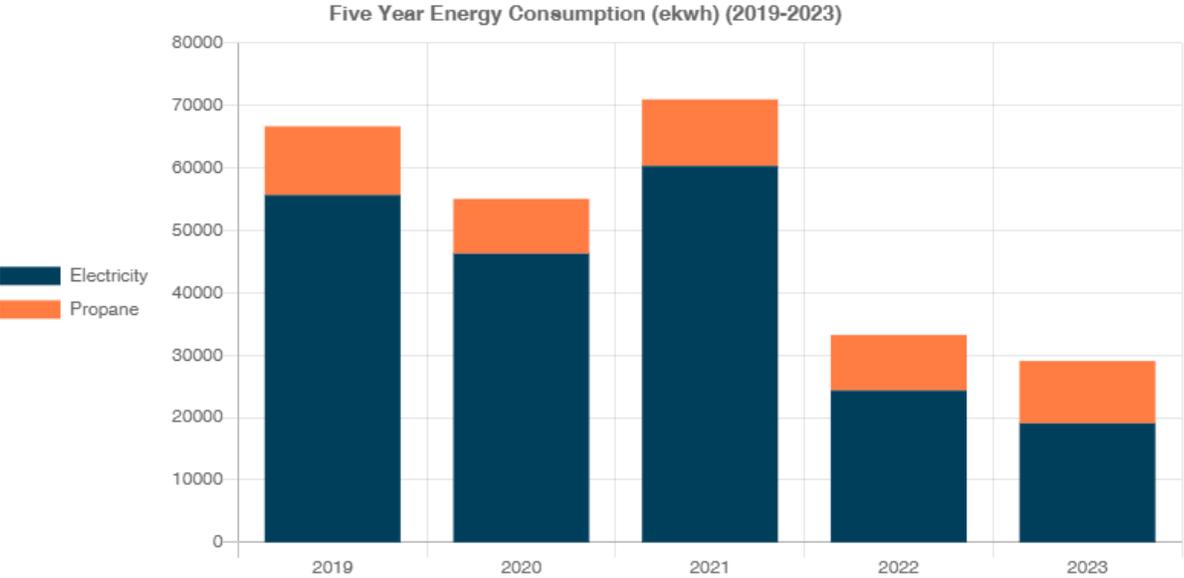
K0J 1T0

Eganville Library

412 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 57.3%



# Medical Offices

75 Wallace Street

Eganville ON

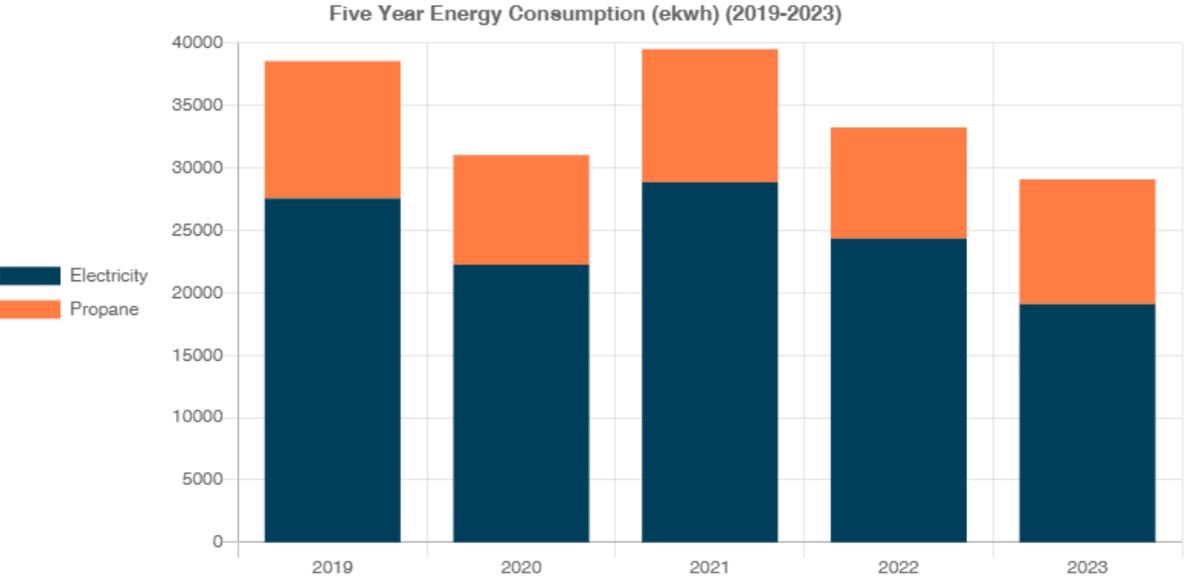
K0J 1T0

Library/Medical Office

412 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 37.7%



# Museum

85 Bonnechere Street

Eganville ON

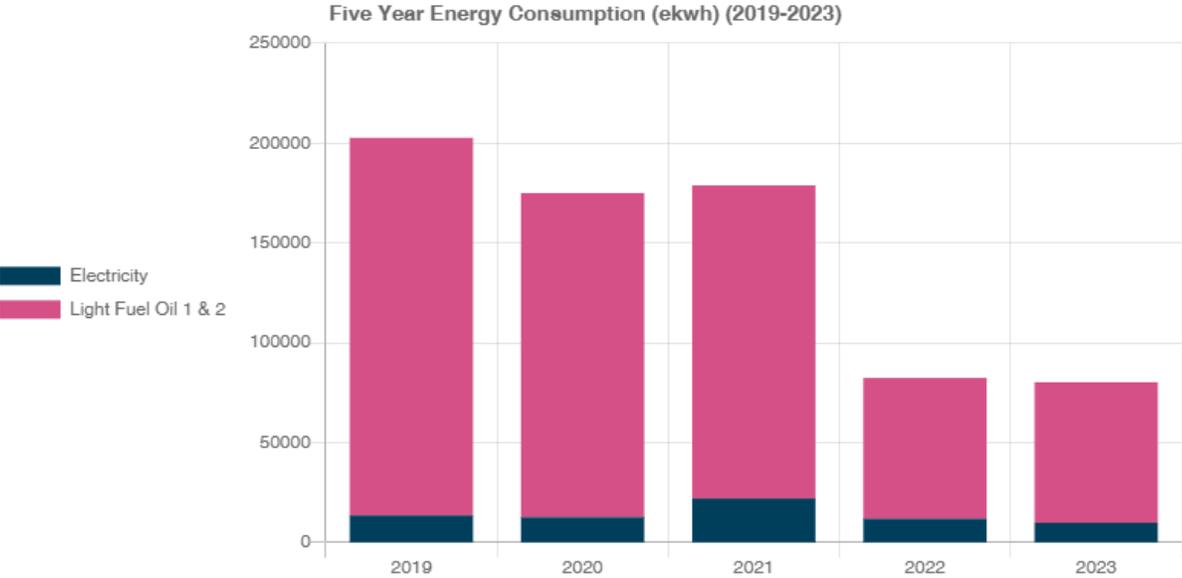
K0J 1T0

Eganville Museum

220 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 21.4%



The reduction in fuel consumption is due to the replacement of the furnace with a more efficient model.

# Roads Office

294 Highway 512

Gratton ON

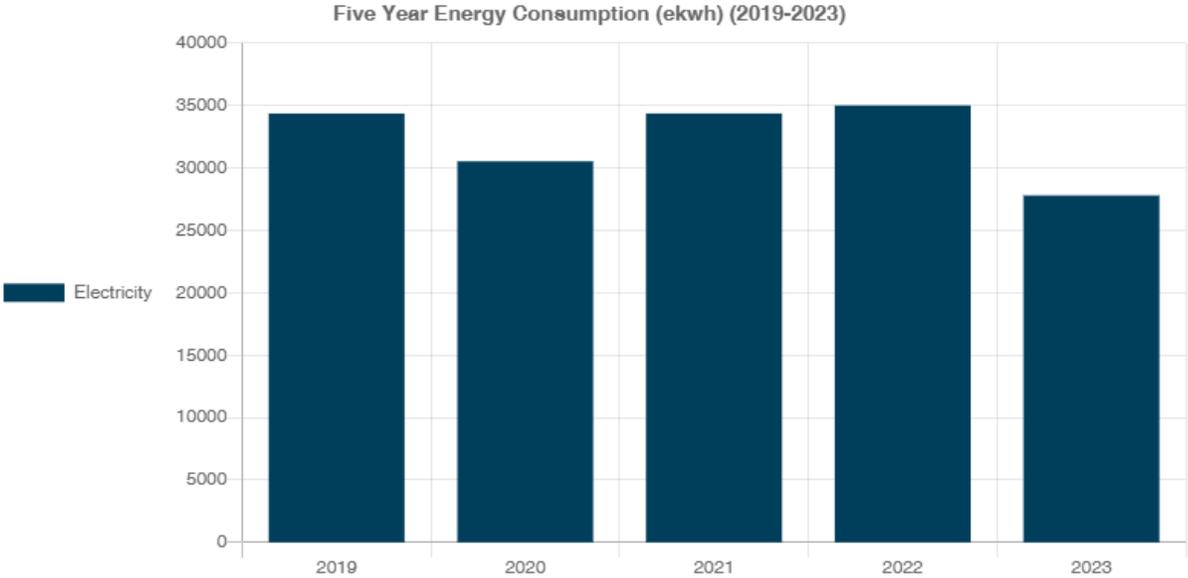
K0J 2A0

Gratton Office

185 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 9.3%



# Rotary Beach

178B Jane Street

Eganville ON

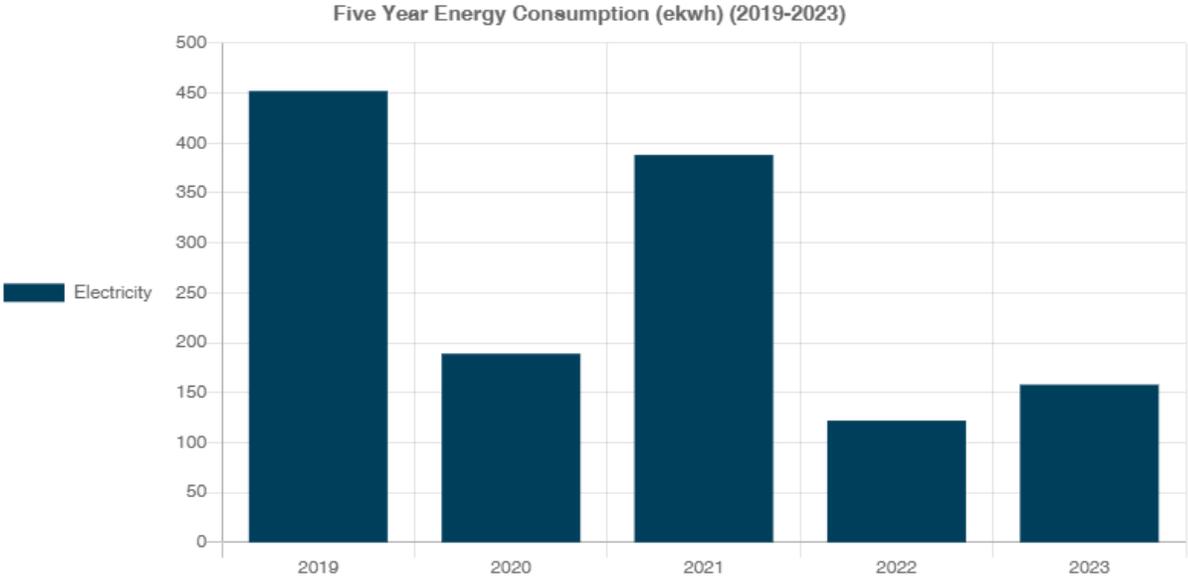
K0J 1K0

Washrooms and Change Rooms

45 square meter floor space

2920 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 61.5%



The facilities have decreased the hours of operations and we have reduced the number of washrooms which has led to reduced energy consumption and costs.

# Sewage Treatment Plant

131 John Street

Eganville ON

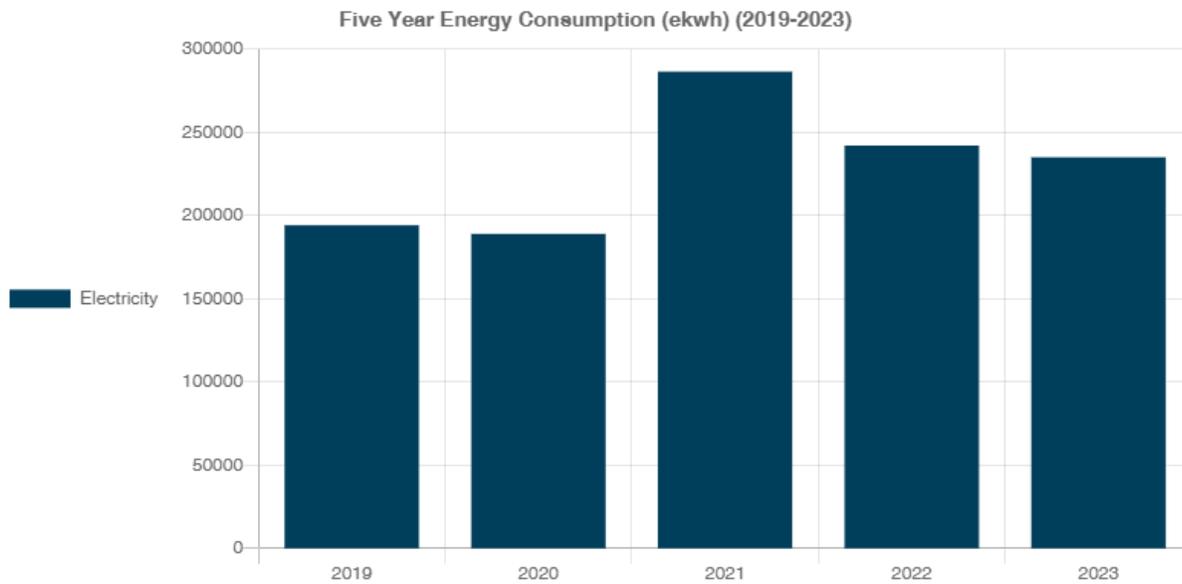
K0J 1T0

Eganville STP

220 square meter floor space

8760 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 20.0%



This facility and the Dewatering Facility are both on the same electricity bill. We are looking at changing out all of these lights to LED and other areas where we can decrease energy consumption and cost.

# Storage Building (Old Dog Pound)

3376 Hwy #41

Gratton ON

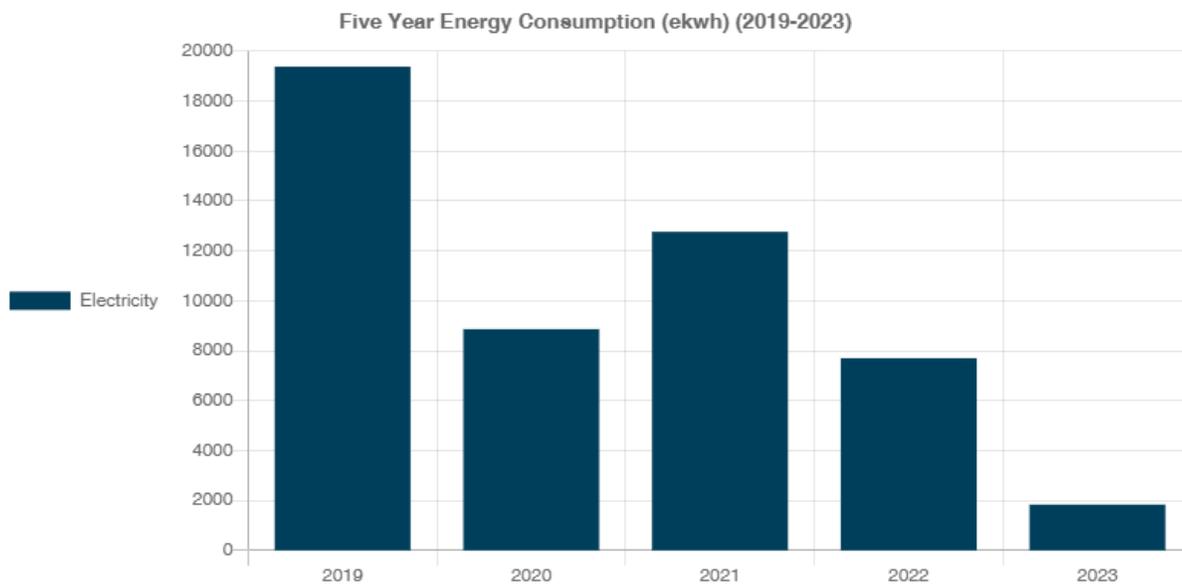
K0J 2A0

Old Dog Pound

75 square meter floor space

8760 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 85.7%



# Tourist Booth

46 Bonnechere Street W

Eganville ON

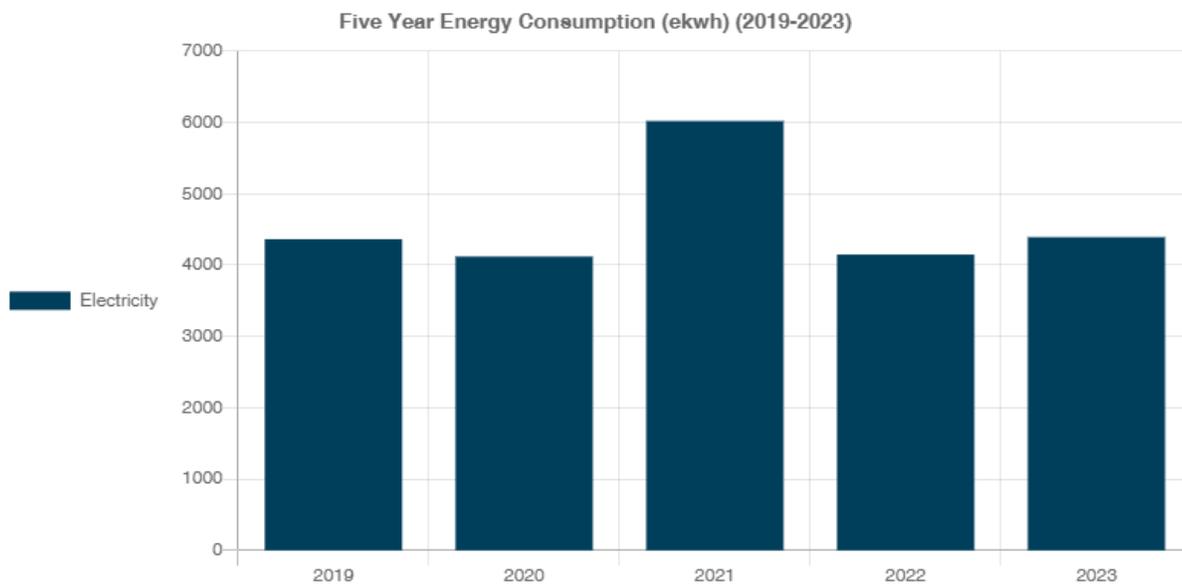
K0J 1K0

Tourist Booth

60 square meter floor space

2086 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 10.6%



The Tourist Booth has had new electrical outlets and receptors, and camera installed which may be the cause of the increase in consumption.

# Town Hall

49 Bonnechere Street East

Eganville ON

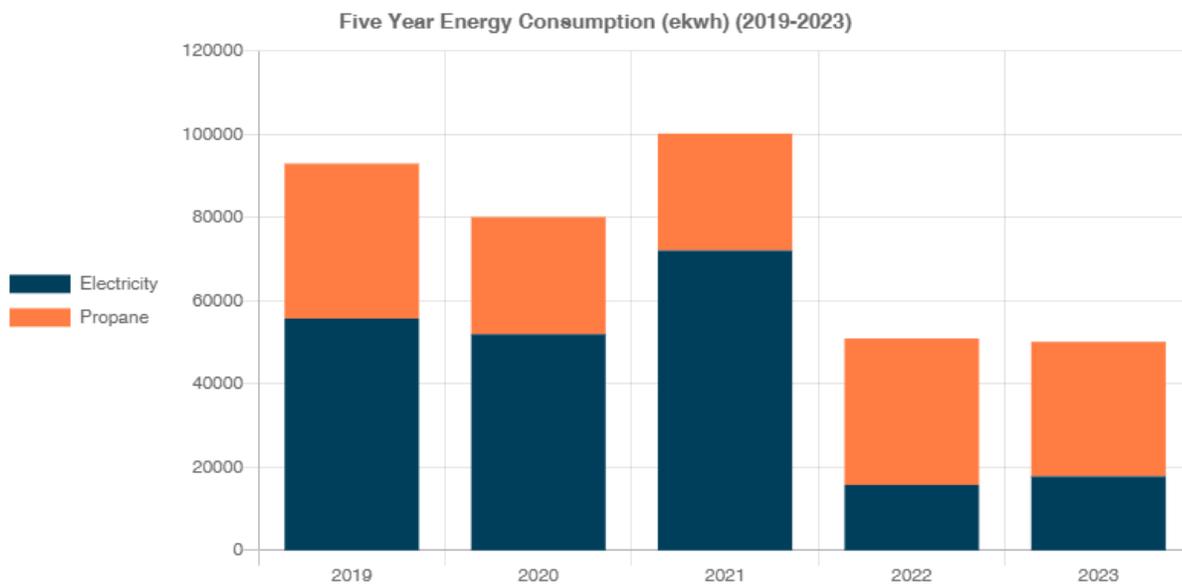
K0J 1T0

Eganville Townhall

266 square meter floor space

3380 Annual Hours of Operation

Over the past 5 years this building has decreased energy consumption by 44.0%



This is also not accurate as the storage space was not calculated correctly and therefore this space was too high and the paramedics space was too low. Overall the increase in energy at 49 Bonnechere Street is 38.5%. We will review again in 5 years as we now no longer have paramedics on site 24/7 which should decrease consumption and costs.

# Water Filtration Plant

401 Water Street

Eganville ON

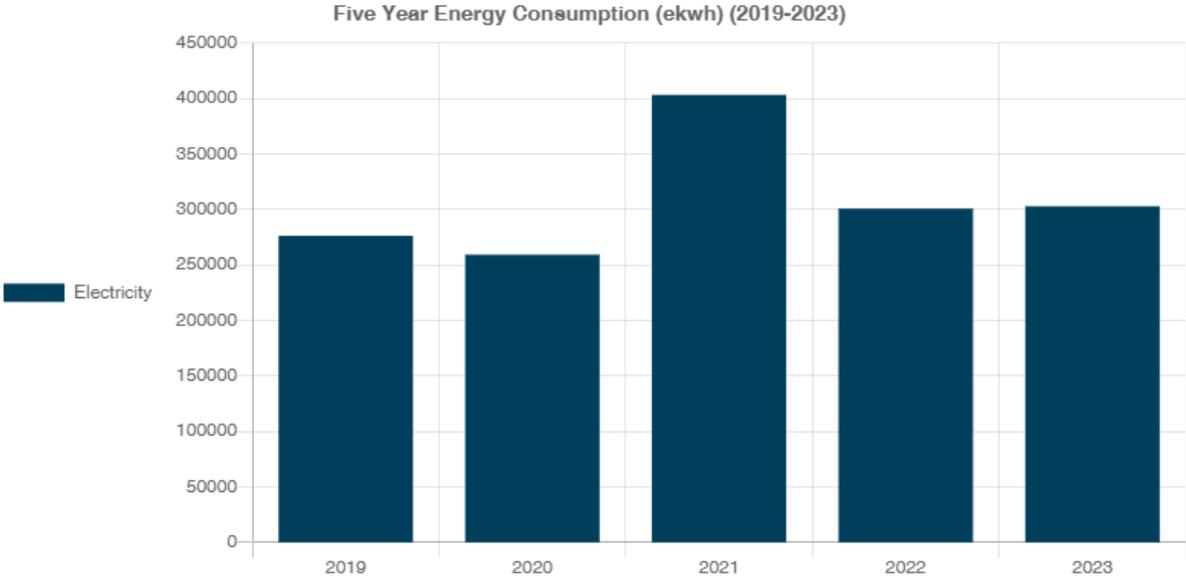
K0J 1T0

Eganville Water Filtration Plant

669 square meter floor space

8760 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 12.5%



# Youth Centre

8A Foran Street

Eganville ON

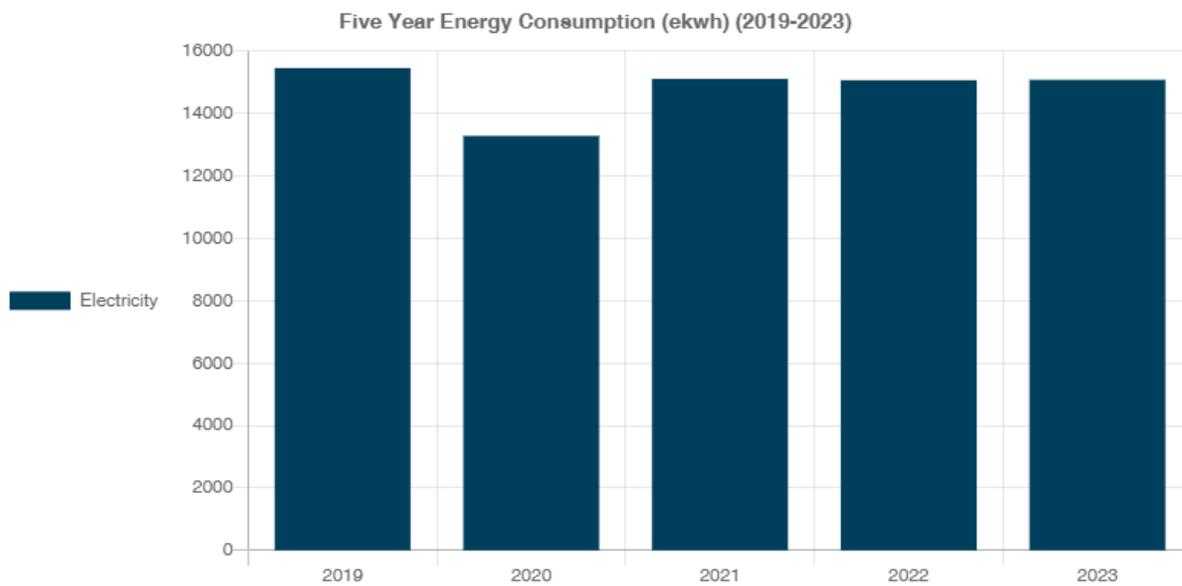
K0J 1T0

Eganville Youth Centre

155 square meter floor space

1040 Annual Hours of Operation

Over the past 5 years this building has increased energy consumption by 12.0%



New Flood Lights were installed which may be the reason for the increase. We are looking at installing motion lights in the washrooms there to reduce consumption and cost.