# 2025 ENERGY SUMMARY REPORT

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Date: June 2025

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# Reporting Requirements

Waypoint's 2025 Energy Summary Report will aim to meet the reporting requirements of the Ontario Regulation 25/23 made under the Electricity Act (1998), Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans.

The regulation requires that prescribed public agencies:

- Summarize annual energy consumption and greenhouse gas emissions and provide these annually to the ministry through the use of Portfolio Manager
- Prior to July 1, 2024 and on or before July 1 of every fifth year thereafter, publish on its website, and make available in printed form, the energy conservation and demand management plan as approved by senior management.

Ontario Regulation 25/23 and its requirements replaces Ontario Regulation 507/18 which has been revoked.

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# An Introduction to Our Organization

## About Waypoint Operations

Waypoint Centre for Mental Health Care (Waypoint) is a mental health hospital serving residents from Penetanguishene, Midland, Barrie, Orillia, Collingwood, Parry Sound, Muskoka and surrounding communities on their path to mental health wellness. The main campus at 500 Church Street is comprised of 10 primary buildings on approximately 200 acres. Waypoint houses 315 patient beds and is the North Simcoe area's largest employer.

The main campus includes six regional specialized inpatient programs (Acute Assessment, Bayview Program for Dual Diagnosis, Georgianwood Program for Concurrent Disorders, Horizon Program for Geriatric Psychiatry, Sans Souci Program for Transition and Recovery, and the Brebeuf Program for Regional Forensics) where patients benefit from an environment focused on caring, compassion, and hope. Waypoint's main campus is also home to the Ontario's only High Security Forensic Program, providing assessment and treatment to clients served by both the mental health and justice systems.

There are also community-based programs operating at off-site locations (HERO Centre, Outpatient Services, Ontario Structured Psychotherapy (OSP), Family, Child and Youth Program (FC&Y), North Simcoe Youth Wellness Hub (NSYWH), and Specialized Geriatrics Services (SGS)) providing a variety of mental health services to seniors, adults and youth in Simcoe County.

The hospital is also home to the Waypoint Research Institute, formally launched in 2013, building on over 40 years of internationally recognized research committed to providing excellence in mental health care rooted in the best scientific evidence.

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# Our Commitment to Responsible Energy Use

Waypoint is committed to consuming energy in an efficient, cost effective, and environmentally responsible manner when possible. It is recognized that utilities and related costs are necessary to operate the facility but do not directly contribute to the quality of services offered at the hospital. As utility costs rise, it is imperative to reduce energy consumption in an effort to control costs, ultimately allowing continued outstanding customer service to our patients.

Waypoint's commitment to energy efficiency employs the following key energy management principles:

**Informed Decision Making** – Energy will be monitored and tracked. Waypoint will develop, understand and communicate the key metrics so that informed decisions leading to efficient energy use can be taken. Energy or utility assessment will be undertaken to ensure optimal building operations and to determine successes of energy initiatives, ongoing monitoring and auditing of building systems.

**Retrofit Program** - Advance toward internal operational efficiency through a process of continuous improvement. Energy efficiency will be a key driver for retrofits and will be considered in all renovations and retrofits. Waypoint will annually undertake measures in an effort to reduce its footprint.

**Operator Training** - An ongoing commitment to continuously train and upgrade Building Operators' knowledge and understanding of building systems. Waypoint will adopt a program for re-commissioning and tuning of building systems for optimal operation.

**Comfort Guidelines** – Adopt industry accepted standards for building operations regarding temperature, humidity and CO2 levels to ensure optimal patient and staff comfort while balancing utility consumption.

**Procurement** - Purchase utilities to ensure that lowest cost is realized. Procurement will support the acquisition of energy efficient devices and technologies for the hospital.

**Partnerships** - Partner with industry and the public to improve energy conservation explore and develop economically viable alternative fuel sources.

**Awareness & Education** - Foster awareness to reduce the environmental impact of hospital activities and support realization of the hospital's Energy goals. Effectively communicate the progress and success of energy initiatives.

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# Building and Equipment Profiles

The following is a brief description of current buildings and systems at Waypoint.

## Main Campus Buildings

### Administration

**Gross Floor Area**
6,659 m2 (71,677 ft2)

**Heating System(s)**
Three boilers supplying radiators and fan coils

**Cooling System(s)**
*NEW* Central cooling plant supplying the AHU

**Ventilation System(s)**
Variable volume AHU with VFDs

**Hot Water System(s)**
Two hybrid electric heat pump water heaters

## Toanche

**Gross Floor Area**
13,761 m2 (148,122 ft2)

**Heating System(s)**
Four boilers supplying radiators, panels, and fan coils

**Cooling System(s)**
One chiller and cooling tower supplying MUA units

**Ventilation System(s)**
Air handling units equipped with VFDs, VAV

**Hot Water System(s)**
Storage tanks heated by two steam boilers

## Bayfield

**Gross Floor Area**
2,930 m2 (31,538 ft2)

**Heating System(s)**
Three boilers supplying radiators and fan coils

**Cooling System(s)**
Air handler and condensing unit

**Ventilation System(s)**
Air handling units equipped with VFDs, VAV

**Hot Water System(s)**
Storage tanks heated by the boilers

## House 1

**Gross Floor Area**
799 m2 (8,600 ft2)

**Heating System(s)**
Two boilers supplying radiators

**Cooling System(s)**
Two split DX units

**Ventilation System(s)**
Operable windows

**Hot Water System(s)**
Residential gas water heater

## House 2

**Gross Floor Area**
257 m2 (2,766 ft2)

**Heating System(s)**
Natural gas furnace

**Cooling System(s)**
Central AC unit

**Ventilation System(s)**
Operable windows

**Hot Water System(s)**
Residential gas water heater

## House 6

**Gross Floor Area**
138 m2 (1,485 ft2)

**Heating System(s)**
Natural gas furnace

**Cooling System(s)**
Central DX unit

**Ventilation System(s)**
Operable windows

**Hot Water System(s)**
Residential gas water heater

## House 8

**Gross Floor Area**
395 m2 (4,252 ft2)

**Heating System(s)**
One boiler supplying radiators

**Cooling System(s)**
*NEW* Split DX Unit

**Ventilation System(s)**
Operable windows

**Hot Water System(s)**
Residential gas water heater

## Powerhouse

**Gross Floor Area**
549 m2 (5,909 ft2)

**Heating System(s)**
Two boilers supplying radiators and force flow units

**Cooling System(s)**
Split DX unit

**Ventilation System(s)**
Thermostat-controlled exhaust fans and exhaust interlocked with the diesel generators

**Hot Water System(s)**
One electric water heater

## Environmental Services Building

**Gross Floor Area**
2,273 m2 (24,466 ft2)

**Heating System(s)**
Two boilers supplying reheat coils and unit heaters

**Cooling System(s)**
DX with rooftop condenser

**Ventilation System(s)**
Air handling unit equipped with VFDs, VAV

**Hot Water System(s)**
Storage tanks heated by the boilers

## Atrium


**Gross Floor Area**
31,732 m2 (341,560 ft2)

**Heating System(s)**
Ground source heat pump with boilers providing peak capacity*

**Cooling System(s)**
Ground source heat pump with chillers providing peak capacity*

**Ventilation System(s)**
Air handling units equipped with VFDs, VAV

**Hot Water System(s)**
Storage tanks heated by the boilers

The Atrium Building receives heating and cooling through a ground source heat pump system with chillers and boilers providing peak cooling and heating capacity, respectively. The ground source system operates to provide simultaneous heating and cooling when the outside air temperature is above -12°C.

In total, the ground source heat pump provides 296 kW of peak heating and 222 kW of peak cooling. At outside air temperatures below -12°C, the heat pumps can be switched back to cooling mode for cooling the IT rooms, for a total peak capacity of 230 kW. The heat rejected in this mode from the heat pumps can be used for building heating as needed or rejected to the ground. The chillers provide 5,950 kW of supplemental cooling, coupled with a two-cell induced draft cooling tower (5,451 kW total). The chilled water side of the system includes an economizer cycle that allows chilled water to be produced directly through the cooling tower when outside conditions permit, reducing the number of operating hours for the chillers.

Two near condensing boilers (3,212 kW total) and one condensing boiler (1,225 kW) provide supplemental heating. Energy consumption on both sides of the heat pump is measured to quantify the amount of energy this device is diverting from boiler and cooling tower consumption.

# Community Buildings

## Community Health Hub


**Gross Floor Area**
3,803 m2 (40,935 ft2)

**Heating System(s)**
Two boilers supplying VAV boxes

**Cooling System(s)**
Natural gas commercial DX rooftop units

**Ventilation System(s)**
Air handling units equipped with VFDs, VAV

**Hot Water System(s)**
Commercial gas heater

## Waypoint Jones Rd

**Gross Floor Area**
802 m2 (8,632 ft2)

**Heating System(s)**
Natural gas rooftop air handling units

**Cooling System(s)**
Packaged DX rooftop units

**Ventilation System(s)**
Air handling units equipped with VFDs, VAV

**Hot Water System(s)**
Electric heater

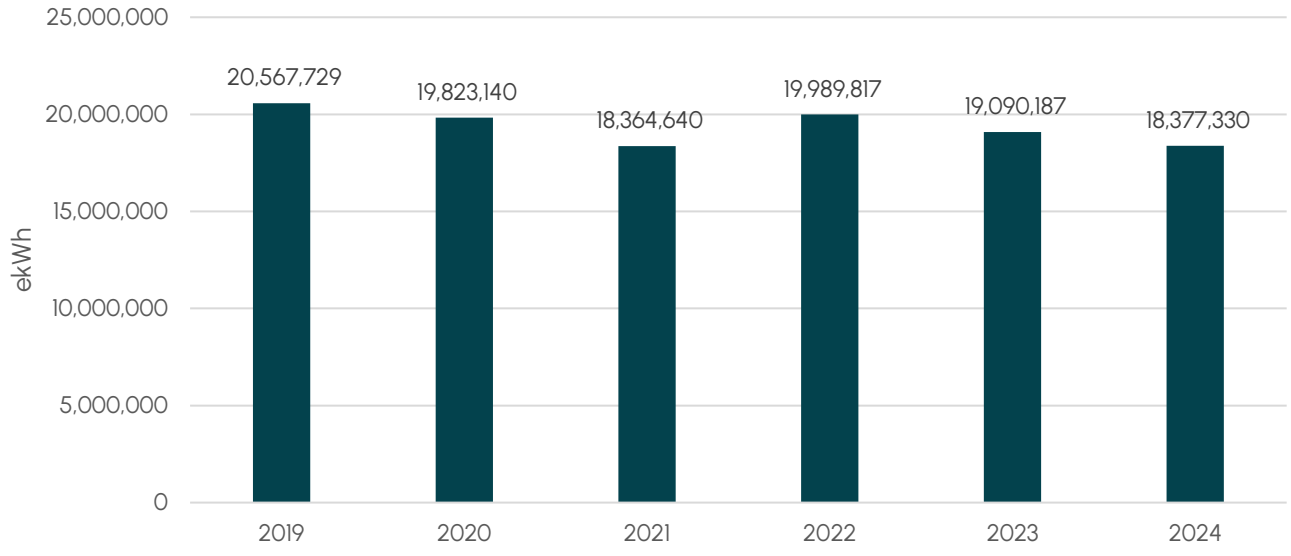
# Energy Consumption

## Historical Energy Consumption Summary

The following figures summarize total energy consumption at Waypoint's three locations for recent years.

### Main Campus

| | | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|
| Electricity Consumption | kWh | 10,113,843 | 10,162,995 | 9,080,856 | 9,266,970 | 9,251,487 | 9,600,864 |
| | $ | 1,376,969 | 1,455,417 | 1,106,438 | 1,172,700 | 847,941 | 884,777 |
| Natural Gas Consumption | $m^3$ | 1,005,665 | 929,307 | 893,101 | 1,031,539 | 946,484 | 844,297 |
| | $ | 128,757 | 140,338 | 161,307 | 246,665 | 248,199 | 243,209 |
| Total Energy Consumption | ekWh | 20,567,729 | 19,823,143 | 18,364,643 | 19,989,813 | 19,090,191 | 18,377,330 |
| | $ | 1,505,726 | 1,595,754 | 1,267,745 | 1,419,336 | 1,096,140 | 1,127,986 |
| Energy Intensity | $ekWh/m^2$ | 346 | 333 | 309 | 336 | 321 | 309 |
| | $ekWh/ft^2$ | 32 | 31 | 29 | 31 | 30 | 29 |



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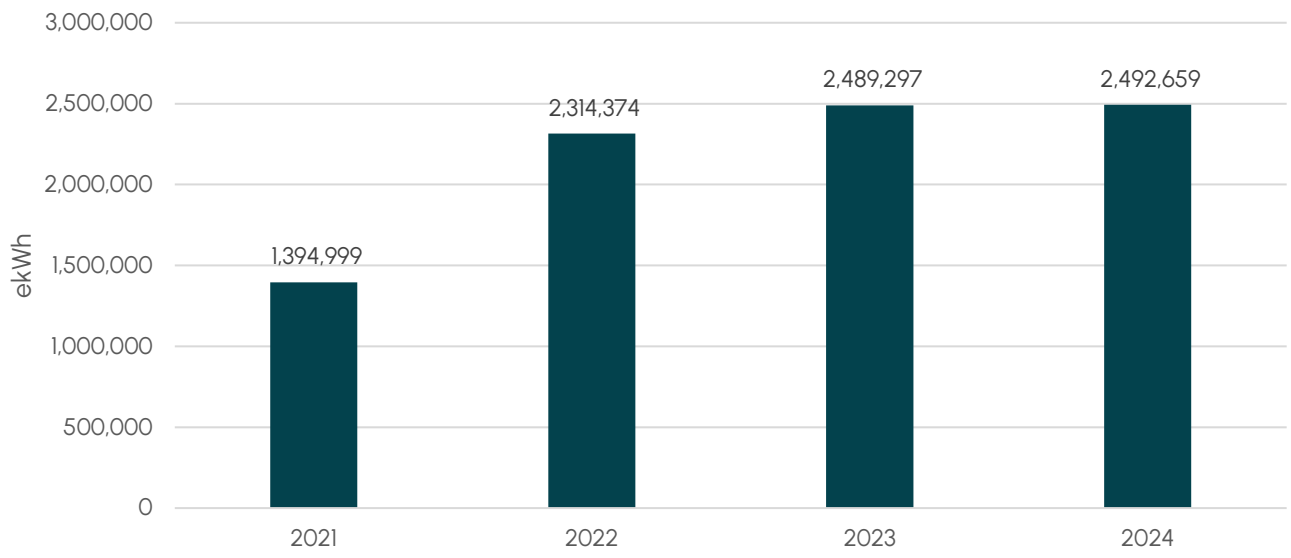
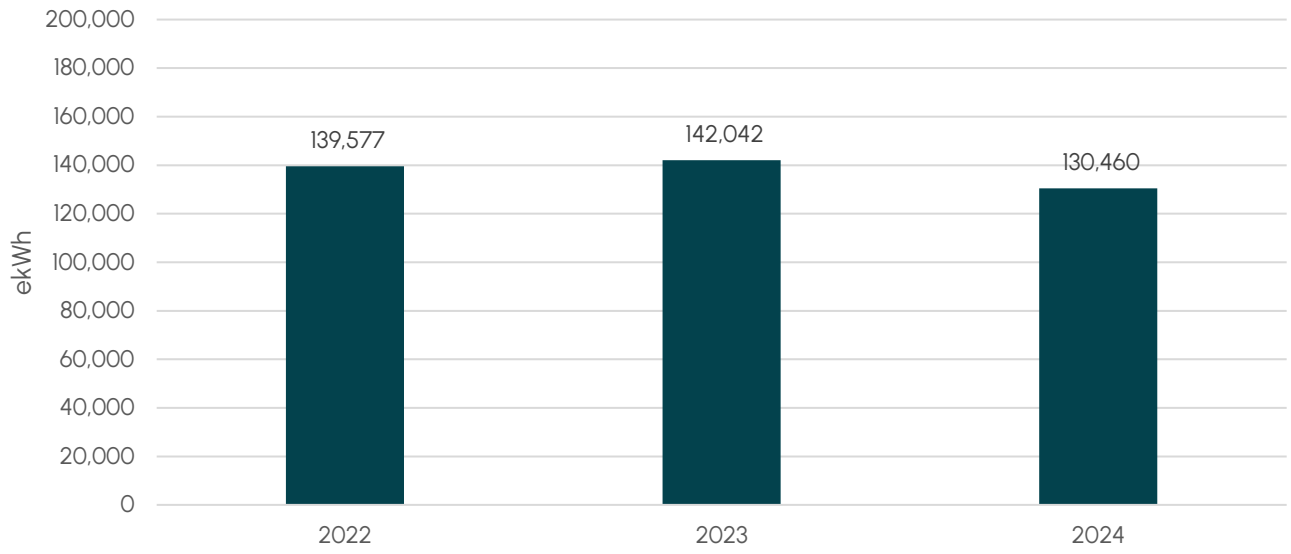
## Community Health Hub

| | | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Electricity Consumption | kWh | 524,667 | 714,916 | 896,887 | 792,744 |
| | $ | 83,248 | 112,492 | 137,599 | 120,992 |
| Natural Gas Consumption | $m^3$ | 83,726 | 153,868 | 153,190 | 163,532 |
| | $ | 16,217 | 32,870 | 34,752 | 41,902 |
| Total Energy Consumption | ekWh | 1,394,998 | 2,314,373 | 2,489,296 | 2,492,659 |
| | $ | 99,465 | 145,362 | 172,352 | 162,894 |
| Energy Intensity | ekWh/$m^2$ | 367 | 609 | 655 | 655 |
| | ekWh/$ft^2$ | 34 | 57 | 61 | 61 |



## Waypoint Jones Road

| | | 2022 | 2023 | 2024 |
|---|---|---|---|---|
| Electricity Consumption | kWh | 38,704 | 43,331 | 40,304 |
| | $ | 5,917 | 6,686 | 6,692 |
| Natural Gas Consumption | $m^3$ | 9,704 | 9,496 | 8,673 |
| | $ | 4,542 | 3,602 | 3,450 |
| Total Energy Consumption | ekWh | 139,577 | 142,042 | 130,460 |
| | $ | 10,459 | 10,288 | 10,142 |
| Energy Intensity | $ekWh/m^2$ | 174 | 177 | 163 |
| | $ekWh/ft^2$ | 16 | 16 | 15 |



# Electricity Consumption

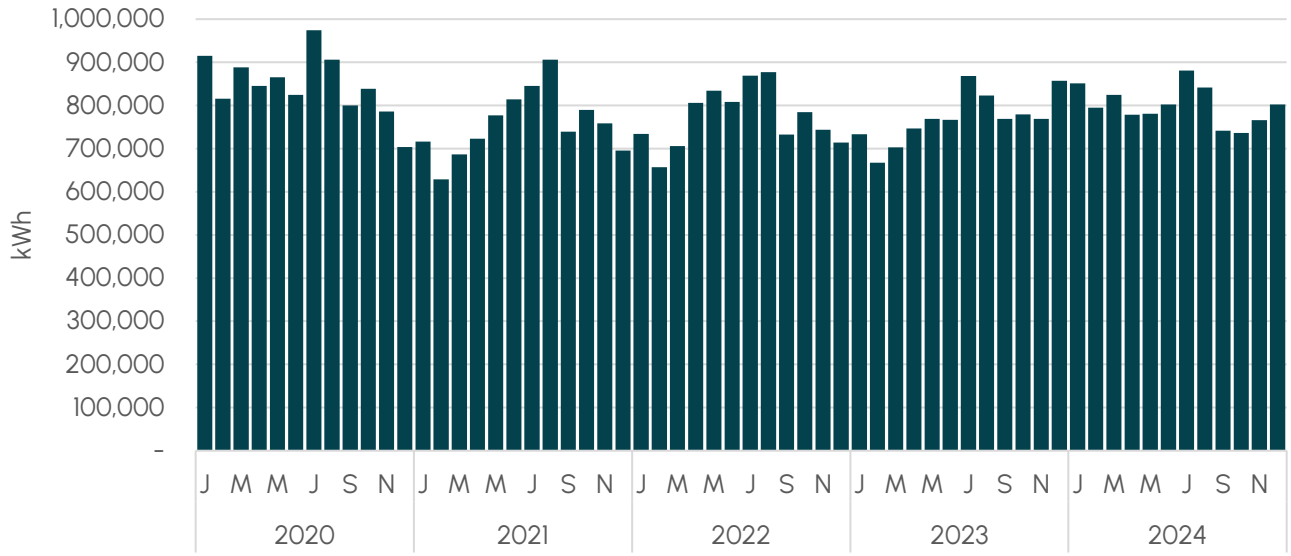
## Electricity Metering

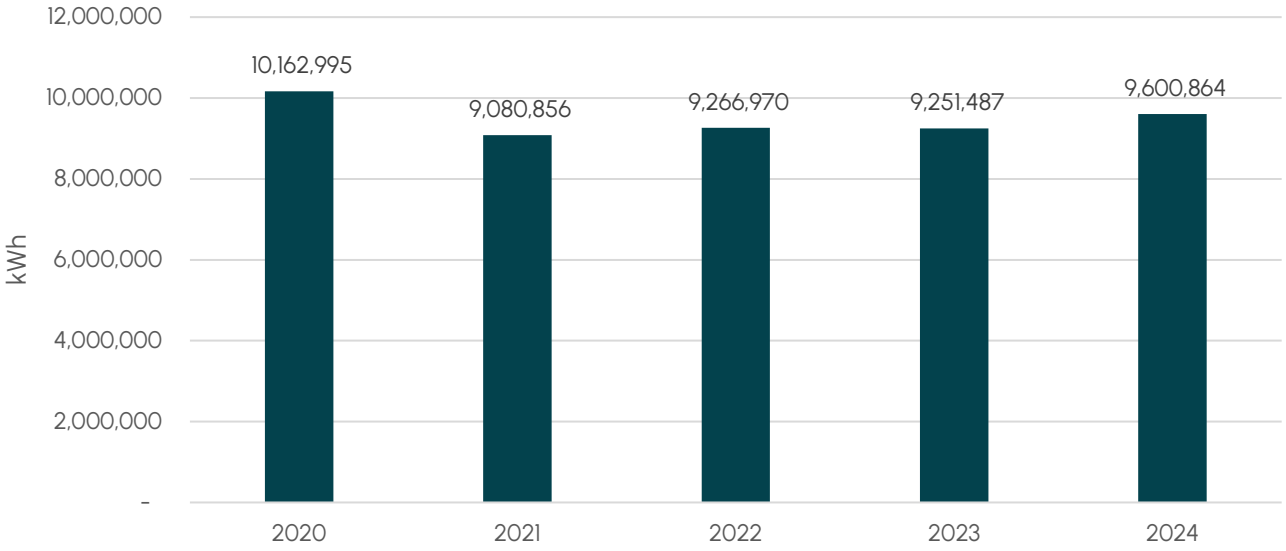
| Site | Provider | Account Number | Meter Number |
|---|---|---|---|
| Waypoint Main Campus | Alectra | 2768520000 | HZN7191262 |
| Community Health Hub | Newmarket Hydro (Midland PUC) | 00657368-00 | MD20112 |
| Jones Rd Office Suite | Newmarket Hydro (Midland PUC) | 00657075-02 | MD20499 |

## Electricity Consumption History

### Main Campus

Past electricity consumption is illustrated in the following graphs. The five most recent years are shown.





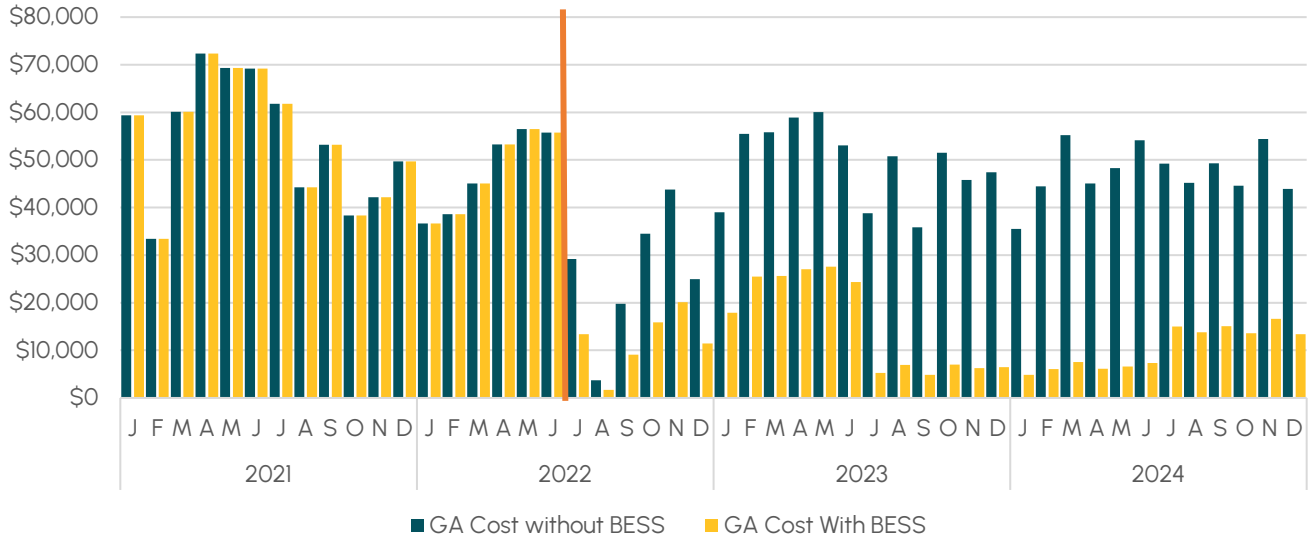

## Load Shedding Project Details

Waypoint is always looking for ways to reduce energy costs and implement green initiatives.

Waypoint has entered an agreement to undertake a battery storage project that will reduce the hospital's electricity demand at times when provincial demand is highest. During forecasted peak demand periods, Alectra signals the newly installed battery storage system to provide electricity in place of the normal supply from the electricity grid. This process helps relieve strain on the utility grid at times of peak demand.

The batteries arrived on site in April of 2021, and the system is now operational.

The following chart demonstrates the global adjustment (GA) cost comparison with and without the battery storage project.




Since the program inception, Waypoint has avoided approximately $ 935,000 in global adjustment charges. After program partnership fees and taxes, the realized saving total over $227,000.

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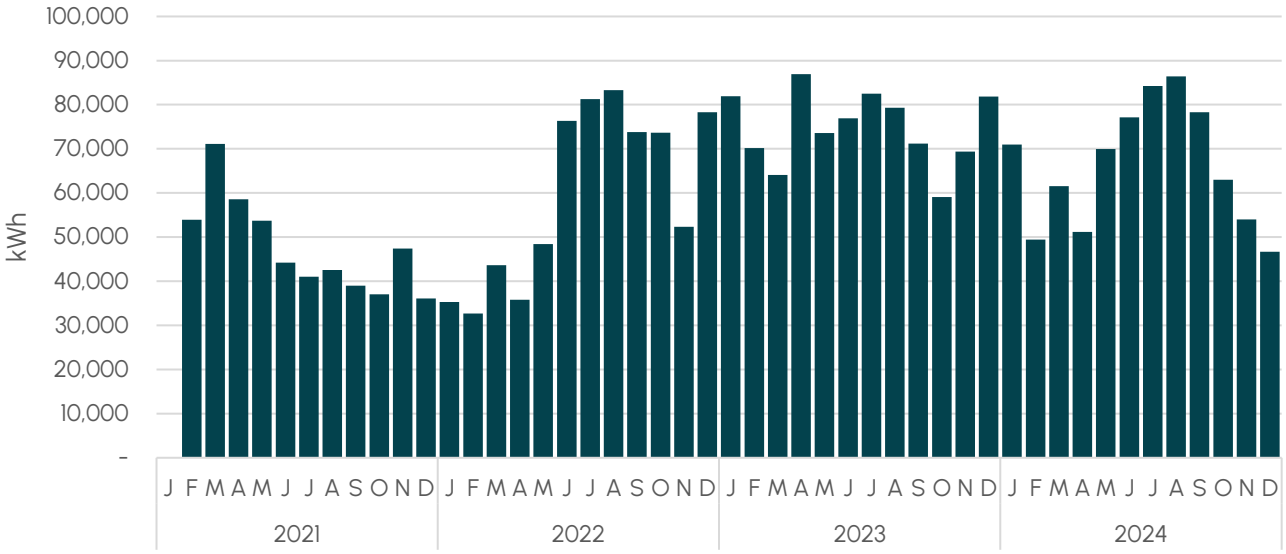
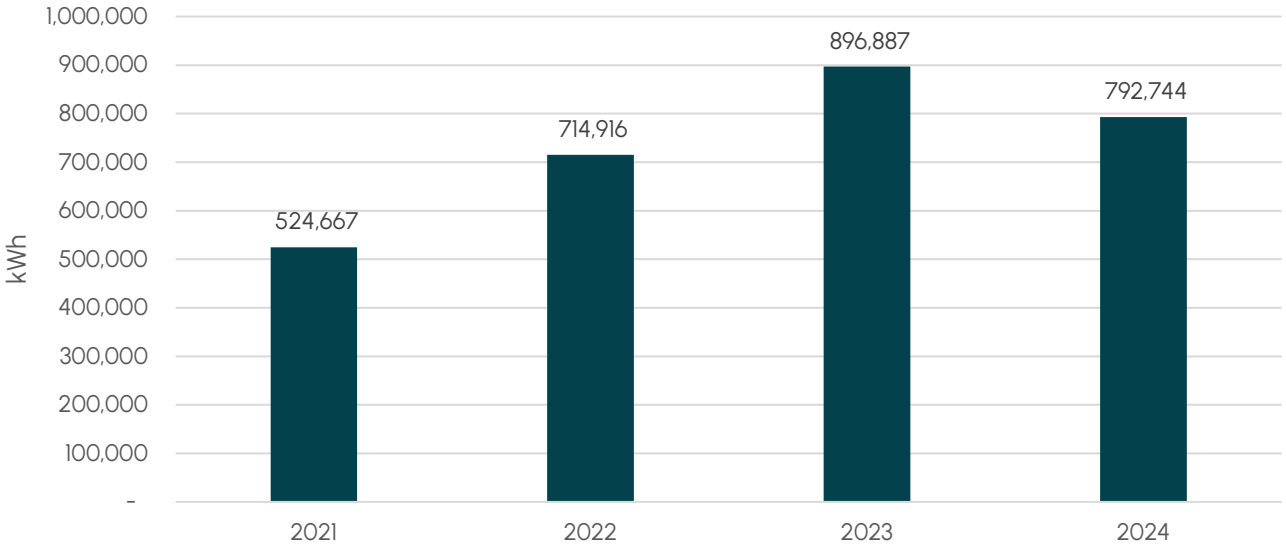
## Community Health Hub

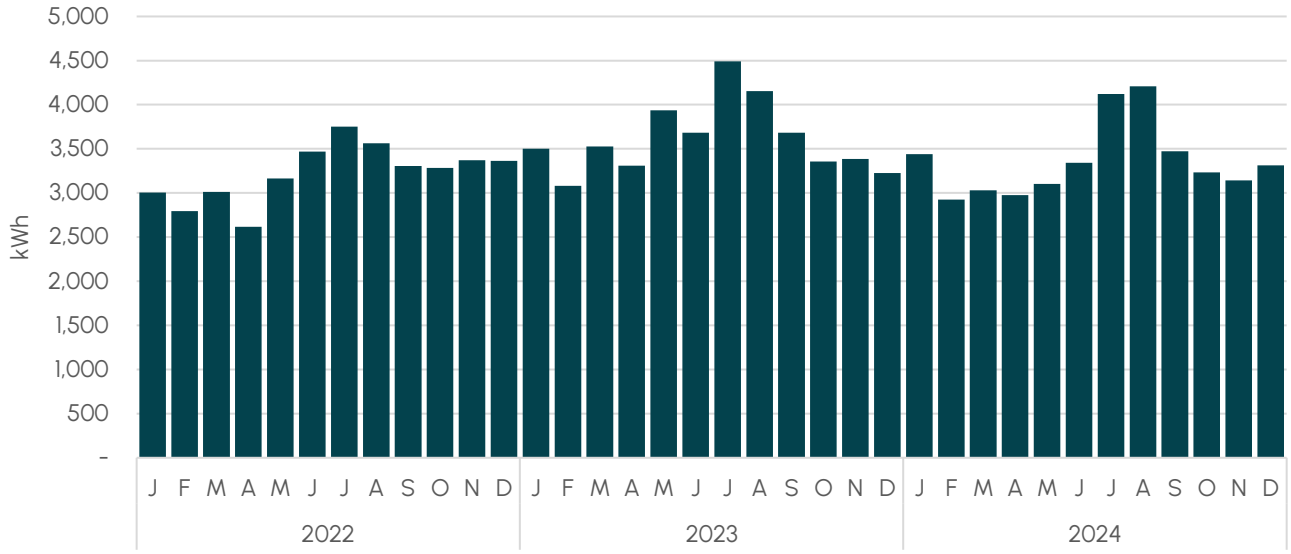
Past electricity consumption is illustrated in the following graphs.

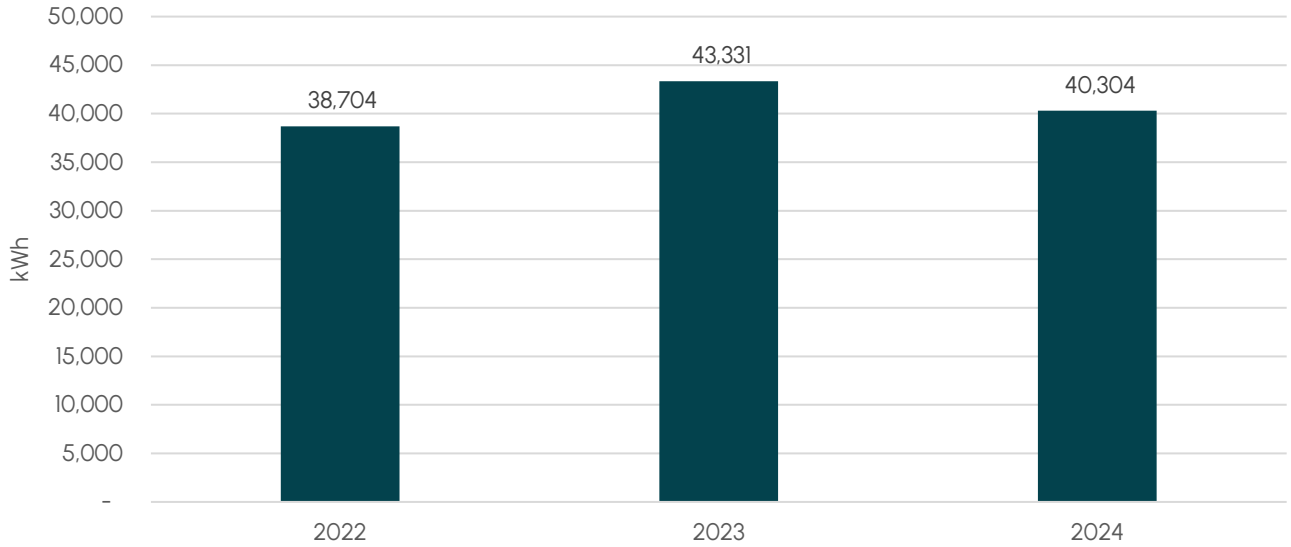


## Waypoint Jones Road

Past electricity consumption is illustrated in the following graphs.



# Natural Gas Consumption

## Natural Gas Metering

There are several natural gas meters servicing Waypoint's various locations and buildings. The accounts are summarized in the following table.

| Site/Building | Account Number | Meter Number |
|---|---|---|
| Main Campus – Bayfield | 91 00 06 68776 2 | 964654 |
| Main Campus – Environmental Services | 91 00 04 13268 6 | 335678 |
| Main Campus – Administration | 85 33 87 62999 0 | 345731 |
| Main Campus – Atrium | 93 06 10 07702 1 | 1008770 |
| Main Campus – Toanche | 85 30 98 81999 4 | 1008693 |
| Main Campus – Powerhouse | 07 53 45 78453 2 | 4421145 |
| Main Campus – House 1 | 07 53 45 37101 0 | 1098368 |
| Main Campus – House 2 | 0 753 45 37001 1 | 3318764 |
| Main Campus – House 6 | 91 00 04 09771 1 | 3219521 |
| Main Campus – House 8 | 07 53 45 37601 2 | 4499506 |
| Community Health Hub | 93 06 10 14160 6 | 1006668 |
| Jones Road Office Suite | 91 00 37 75649 2 | 3859395 |

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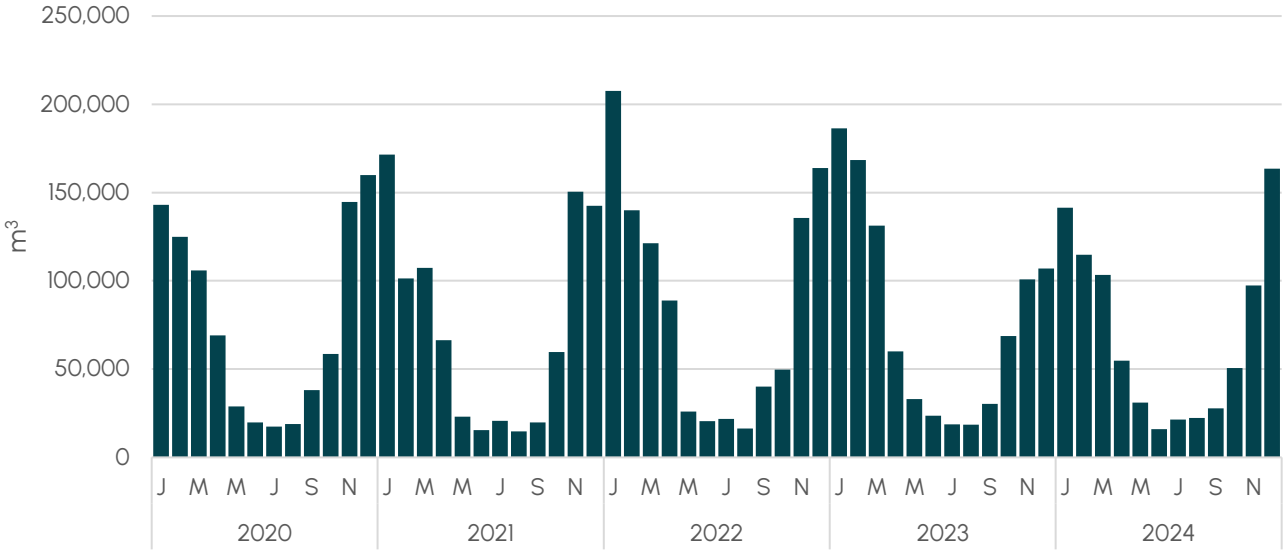
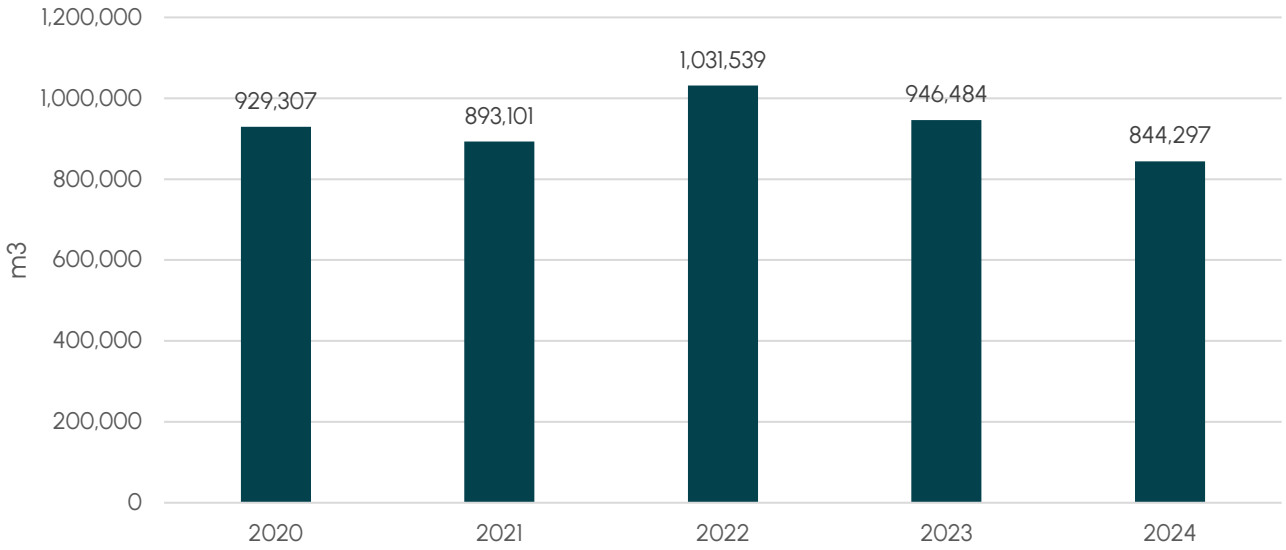
## Natural Gas Consumption History

### Main Campus

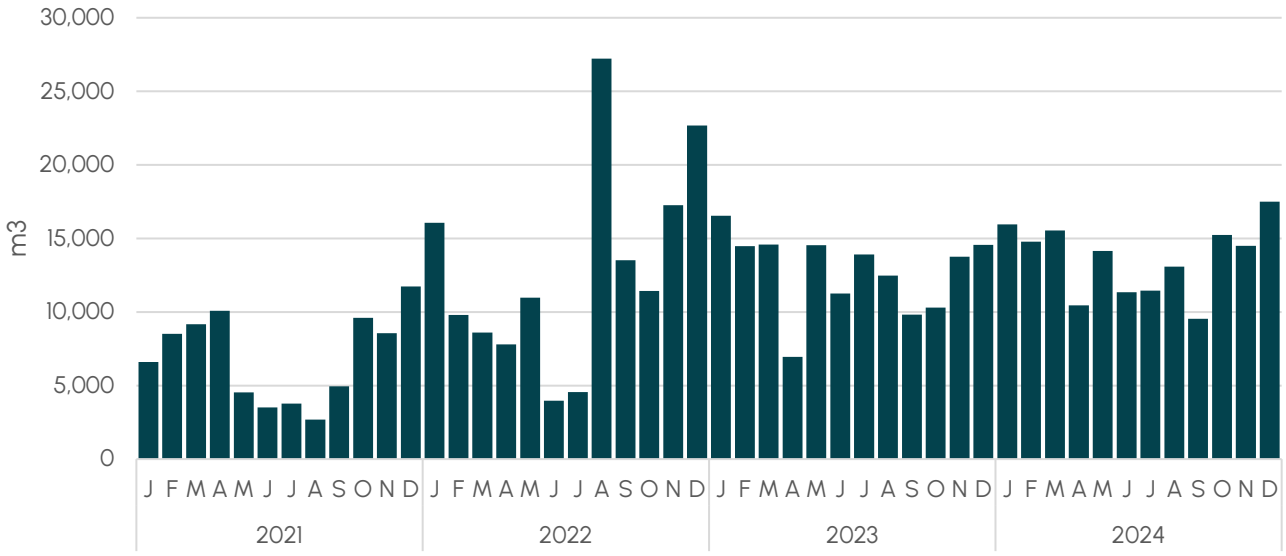
Past natural gas consumption is illustrated in the following graphs. The five most recent complete years are shown below. The graph represents totals from all main campus accounts.

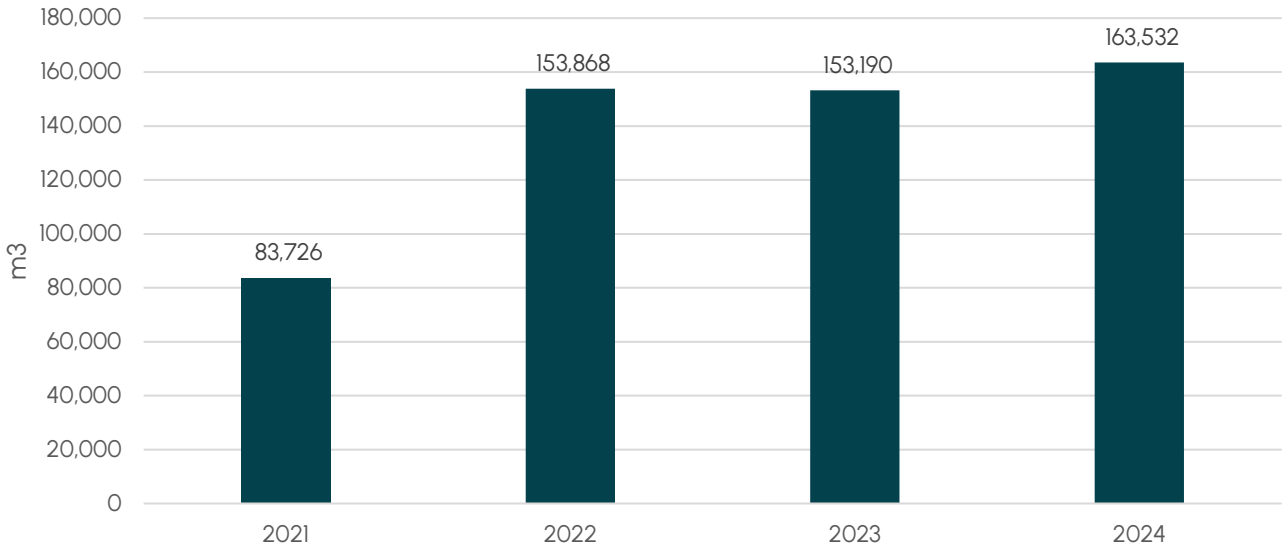


## Community Health Hub

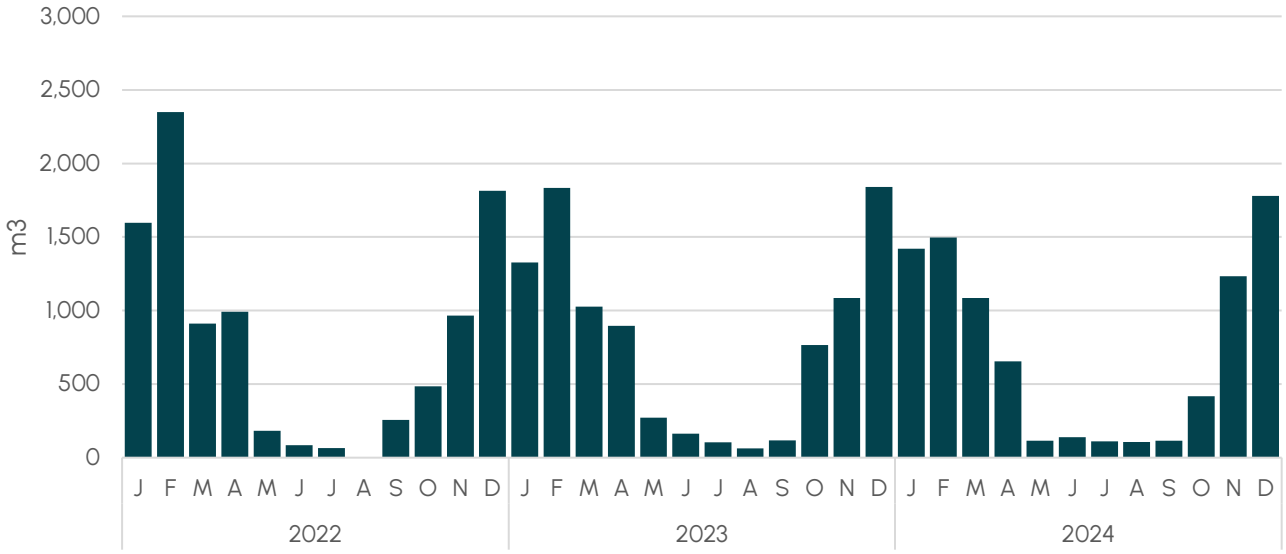
Past natural gas consumption is illustrated in the following graphs. There are currently four complete years of data available.

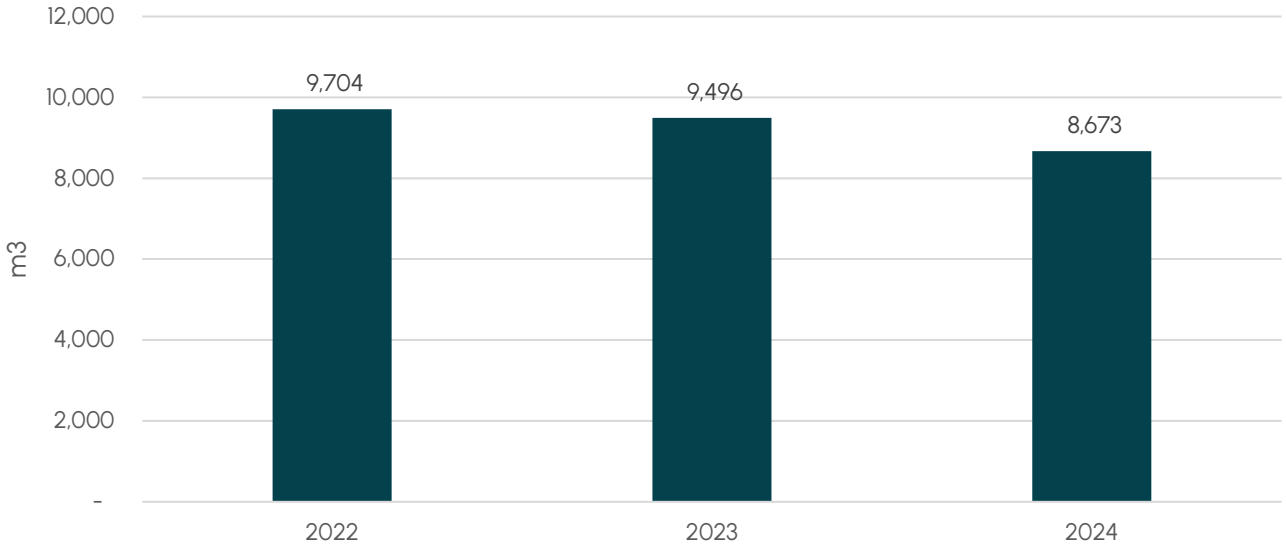


## Waypoint Jones Road

Past natural gas consumption is illustrated in the following graphs.



# Notable Projects Influencing Energy Use

## Completed Projects and Initiatives

| | |
|---|---|
| **2019 Window Replacement**<br>House 1 (Pineview) | The renovations to House 1 (Pineview) included a replacement of existing single pane windows with double pane wood frame windows. The replacements reduce heat loss and improve occupant comfort. |
| **2019 Lighting Replacement**<br>Bayfield | There were ceiling fixtures in the Bayfield Building containing predominantly 13 W CFL lamps. Over time these lamps became inconsistent in colour when replacements took place. The fixtures have been replaced with 11 W LED fixtures. In addition to a limited amount of electricity savings, the occupants will benefit from better and consistent output colour in their living space and maintenance sees a decrease in the costs associated with individual lamp replacements after failures. |
| **2021 Roof Upgrade**<br>Bayfield | There was an upgrade performed on the Bayfield Building's roof which has improved the insulating properties by approximately R12. It is anticipated that the replacement will reduce heat loss and improve occupant comfort. |
| **2021 Load Shedding Project**<br>Hospital Campus | Waypoint embarked on a project with the utility company consisting of installing a battery bank connected to the main incoming power line in order to be able to go "OFFLINE" approximately 20 days per year, including the 5 highest days of electrical demand to reduce the stress on utility infrastructure. The additional benefit to Waypoint is that the global adjustment on future electricity invoices are eliminated as long as the requirements are met. |

| | |
|---|---|
| **2022 Exit Sign Replacement**<br>Administration, Environmental Services, Toanche, Bayfield | The previous signs used in the buildings identified are older technology of various vintages and are no longer considered efficient. Most existing exit signs are either 7 W or 14 W incandescent lamps. In addition to being dated, these lamps fail on a regular basis, causing staff to require changing the lamps. The existing models were replaced with LED units with battery backups using approximately 4 W. This change will improve reliability, reduce energy and maintenance costs, and give a more professional appearance to the buildings. |
| **2022 Building Automation Tuning**<br>All BAS Controlled Buildings | The BAS fine tuning involves adjusting set-points, reprogramming algorithms, modifying schedules and controls and ensuring proper operation resulting in more efficient operations. |
| **2022 Pipe Insulation**<br>Environmental Service, Toanche, Administration | Waypoint engaged an insulation company to apply a PVC jacketing to several runs of piping in numerous mechanical rooms to reduce the impact of the surrounding environment on the pipe contents. |
| **2024 Active Natural Gas Meter Readings**<br>Hospital Campus | Historically there have been substantial estimated meter readings at the various natural gas meters on site. We have begun to collect actual meter reading and submitting to the utility company. The benefit of this reporting will be to improve accuracy and reduce uncertainties when examining consumption data. |
| **2024 Eliminate Natural Gas Leaks**<br>Community Health Hub | It has recently been brought to our attention that there was a section of piping outside the Community Health Hub which had been leaking natural gas. The leaking pipe and components have been replaced; natural gas savings moving forward will depend on how much natural gas was being lost. The consumption will be monitored moving forward to estimate savings. |

## Ongoing and Future Projects and Initiatives

| | |
|---|---|
| **Window Replacement**<br>Administration | This is a continuation of the Administration Building window project replacing the remaining single pane windows with more efficient alternatives |
| **Toanche Air System/Radiant Panel Integration**<br>Toanche | The current heating system is a mixture of radiant and air systems which often do not work together. This measure involves a modification to building controls to better regulate two different heating systems to improve operations. |
| **Optimize Unit and Zone Schedules**<br>Atrium | Optimize schedules based on facility occupancy. |
| **Fluorescent Lighting Retrofit**<br>Toanche, Administration, Bayfield | Replace existing linear fluorescents lamps (various T8) with LED replacements. Most retrofits will reduce each lamp from approximately 25W to 15W. In addition to electricity savings, replacements will also result in less maintenance since the new lamps should have a greater lifespan. Toanche level 3 and Upper Bayfield North Wing are currently undergoing renovations which will include updating any inefficient lighting. |
| **CFL Lighting Retrofit**<br>Atrium | Install LED bulbs in areas where CFL were provided during construction |
| **Sub-Metering Project**<br>Hospital Campus | The hospital currently only receives one monthly electricity invoice for the entire campus making it difficult to determine where energy is being used. There are currently a limited number of sub-meters installed whose intention was to better understand where energy is being sent. A redesign and installation of additional meters would help Waypoint in informed decision making moving forward. |

# Endorsement

Waypoint Centre for Mental Health Care has reviewed and approved this Energy Summary Report.

June 24, 2025

David Griffin

Director, Hospital Services

Date

# Contact Information

For additional information regarding Waypoint's 2025 Energy Summary Report, please contact:

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