



Conservation and Management
Energy Plan
2025-2029

[Ontario Regulation 25/23](#): *Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans* requires Broader Public Sector (BPS) organizations to develop an Energy Conservation and Demand Management (CDM) plan and update it every five years. Our updated CDM plan was developed in compliance with the regulation and covers the period from 2025 to 2029.

Our updated CDM plan builds on the municipality’s previous conservation and demand management efforts. This updated plan also continues to build on experience gained in energy conservation and demand management over the last five years.

A copy of the plan is available at the Municipal Office located at 7 Third Avenue, Whitney ON or on the Township website at www.southalgonquin.ca.

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1.1.1 Background

“This document is a living document that will be reviewed annually by staff and Council and updated as required. It has been prepared by the Corporation of the Township of South Algonquin to achieve compliance with Ontario Regulation 397/11 of the *Green Energy Act 2009*. Under this regulation municipalities and other public service bodies must prepare a five-year plan identifying strategies on how they will conserve energy and optimize consumption patterns.” This plan includes 2023 data usage and outlines measures that could be taken by the municipality to achieve objectives, goals and targets. It should be noted that measures are the preferred expectation, however most of the measures are long term goals that would be dependent on incentive programs and additional funding through ministry programs.

1.1.2 Location and Geography of South Algonquin

The Township of South Algonquin is located in Northeastern Ontario, directly adjacent to the world-famous Algonquin Provincial Park. It is accessed from the east and west by Provincial Highway #60 and from the south by Provincial Highways #127 and 523. South Algonquin is the southernmost municipality in the District of Nipissing. To the south it borders Hastings County, and to the west and east, respectively, it borders Haliburton and Renfrew Counties.

South Algonquin can generally be described as a remote and sparsely populated municipality. Located on the Canadian Shield, the Township is comprised mainly of forested areas, as well as numerous water bodies. Approximately 80% of the Township’s land base is composed of provincial Crown land, most of which is off-limits to new development. These factors, along with the Township’s relatively remote location away from major urban centers, have limited the availability of local economic development opportunities over the past few decades.

1.1.3 Staff Composition

The Township operates with; A full-time CAO/Clerk-Treasurer, Road Superintendent, Deputy Treasurer, Planning and Building administrator, Administrative Assistant, Custodian, and Chief Building Official. 5 full-time and 2 part-time Road staff, 1 part-time Administrative Assistant, 1 part-time Fire Chief and 31 volunteer fire personnel.

1.1.4 Economic Characteristics of South Algonquin

South Algonquin has a narrow economic base, characterized by dependence on forestry, tourism, and retail sectors. The number and variety of job opportunities within the Township are both quite limited. This has led to a relatively high unemployment rate in the municipality, and at the same time, many community members are underemployed due to their reliance on seasonal and/or part-time jobs.

1.1.5 Social and Demographic Characteristics

Census data statistics for South Algonquin in 2021 demonstrate trends of an aging and declining population within the municipality. Population in 2021 was 1055 (1095 in 2016). The Township had a median age of 59.6 (56.2 in 2016). Population decline in the Township can largely be attributed to the out-migration of youth, who tend to leave South Algonquin after graduating from high school and rarely return. These trends and a stagnant number of children living in the Township have combined to result in South Algonquin senior’s population (65+) being larger than the municipality’s child and youth populations combined.

In South Algonquin, 34.6 % of the population was aged 65 or higher in 2021 (29.7% in 2016), while only 20.4% of residents were less than 25 years old (20.1% in 2016).

The population trends identified above – an aging population and significant youth out-migration – pose several issues for the municipality as it pertains to strategic planning and budgeting. The municipality has seen increases in assessment but very little increase in wages or cost of living for the senior population. The municipality has tried to keep the municipal levy minimal to offset the increase in assessment and meet its obligations to raise enough funds for the yearly operational budget.

The remoteness of the area has in some cases limited development, but also increased costs. Due to our geographic location, we have limited choices among our service providers. The municipality is participating in Association of Municipalities (AMO) Local Authority Services (LAS) municipal group buying program (Canoe) which provides benefit from bulk purchasing but has limited vendors.

1.1.6 Challenges of Single Tier Municipality relevant to consumption and cost savings:

The Corporation of the Township of South Algonquin has always exercised prudent financial practices and attempted to control electricity and fuel consumption.

- Funding
- Aging population and infrastructure
- Minimal industries and assessment growth
- Few commercial properties and industries
- Geographical location: we are over two hours from any major center which would offer cost savings
- Suppliers are limited – cost of travelling is incorporated in rates
- Decreasing electricity consumption would require a reduction in service level
- The municipality cannot predict or attain cost savings when the fuel and hydro costs fluctuate and continue to increase
- Lighting retrofits were done in all of our buildings, but no further upgrades are planned without financial assistance as we have not seen any cost reduction resulting from those upgrades

1.1.7 Energy Data Management

- The rink attendants and volunteers of our recreation facilities monitor the heat in those buildings and the Deputy Treasurer follows the annual energy budget to analyze variances.
- The municipality has contracted the services of AMO Local Authority Services (LAS) to participate in the electricity and natural gas procurement program. This program would remove the municipality from the Ontario government's Regulated Price Plan (RPP) and provide opportunities for strategic and competitive energy purchasing. Unfortunately, due to our geographic location, we cannot benefit from these programs and cannot benefit from savings.

Energy Use in Facilities

In April 2023, the municipality completed an asset management plan during which time a review was done for our facilities. In upcoming years, when doing upgrades or repairs to our facilities, the municipality will evaluate economic opportunities in energy and water efficiencies.

Equipment Efficiency

- Ongoing maintenance and replacement of inefficient mechanical equipment is underway, including a review of our existing systems and consider replacement with energy efficient equipment.

Baseline Energy Use

- Our fuel consumption cannot be reduced without jeopardizing the health and safety of our workers or doing some major retrofits which this small municipality cannot afford.

Process Improvement

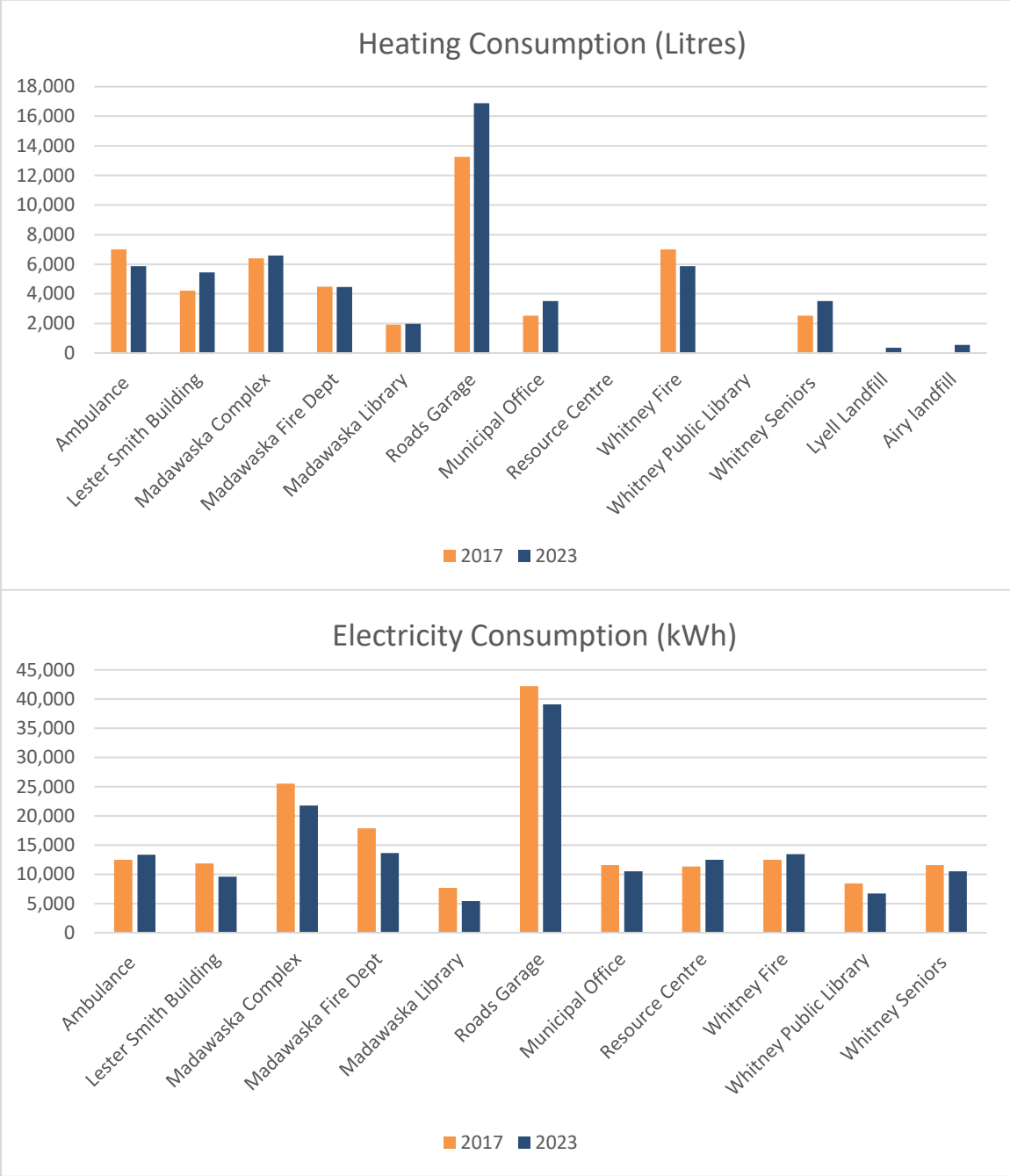
- With the implementation of the BPS website and updating the energy use, the management team can better track efficiencies and identify problem areas. Building component assessment tracking sheets will help identify infrastructure condition and efficiencies.

Program Implementation

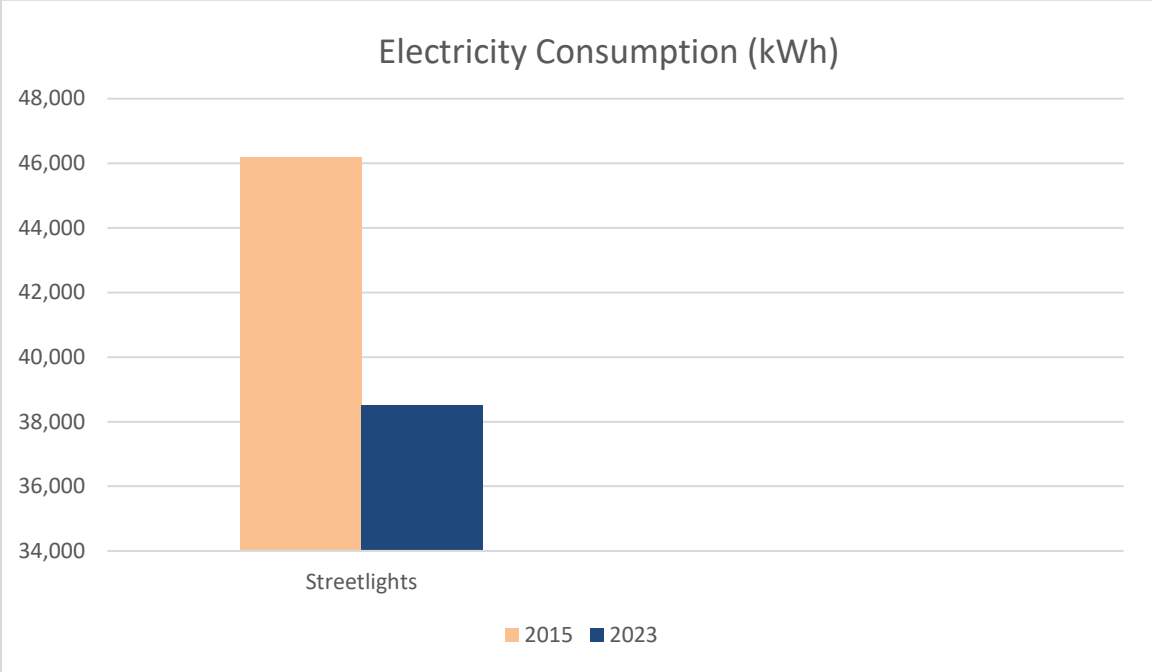
- Develop a communications plan to promote the municipality's successes and initiatives as it pertains to energy savings to the community and implement a preventative maintenance program on the website.
- Continue to update and maintain our Corporate Energy Management Plan
- Begin building component condition tracking.
- Develop and implement operating procedures throughout the facility encouraging turning down the heat when facilities not in use.
- Provide ongoing energy training for municipal staff.

Projects

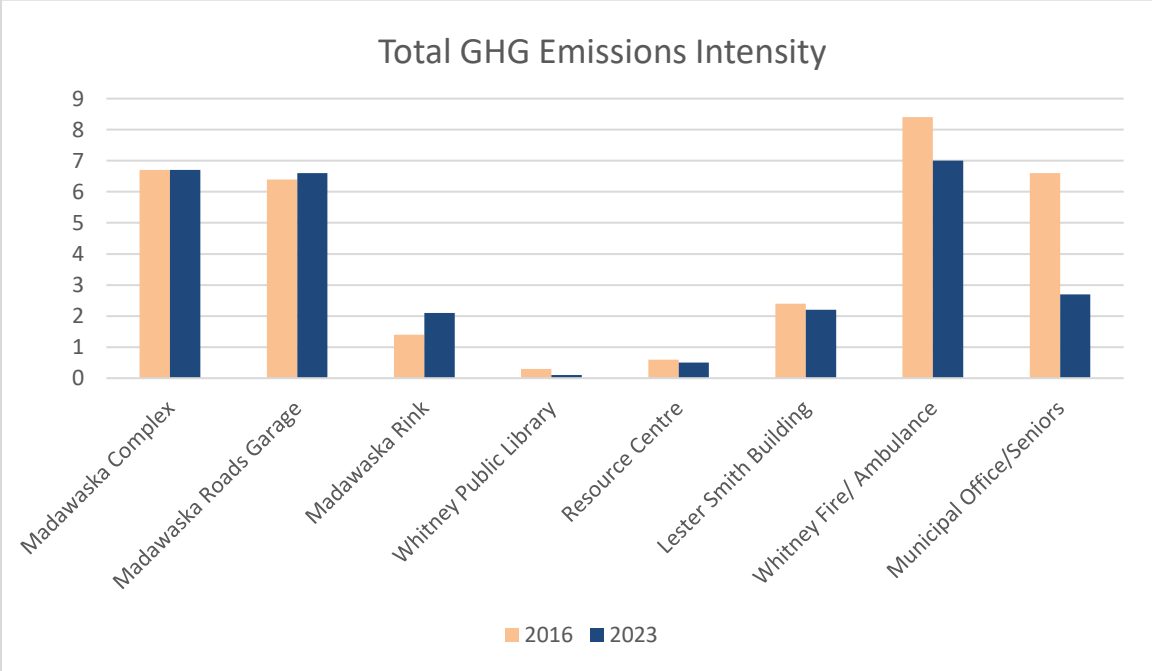
- Review building components and recommend retrofits, or system upgrades.



Over the six-year period (2017 and 2023) heating consumption and electricity consumption has decreased for some municipal buildings. The graphs demonstrate some cost savings and some increased costs at a couple of the locations. The savings were realized through staff education and new programmable thermostats. Cost increases can be attributed to increased use of buildings and the irregular pattern of energy consumption during the winter months from year to year.



In 2015 the Township completed the Street Light Retrofitting Project where all streetlights were converted to LED luminants. The graph demonstrates efficiencies achieved from the upgrade, an approximate annual savings of 7670 kWh.



Greenhouse Gas (GHG) Emissions are the carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) gases released into the atmosphere as a result of energy consumption at the property. GHG emissions are expressed in carbon dioxide equivalent (CO₂e), a universal unit of measure that combines the quantity and global warming potential of each greenhouse gas. This report shows total emissions intensity - which is total

emissions on a per square foot basis.

1.1.8 Five Year Plan

Prior to the Province of Ontario mandating energy conservation, the staff of South Algonquin Township has always practiced with a limited measure of cost control. Energy efficient lights, newer computer systems and other equipment have been purchased to reduce the consumption of electricity. Use of the Air conditioning unit has also been minimized and office lights are turned off during afternoon on sunny days.

Levels of success achieved to date

- The municipality was proactive and built a multi-use facility that encompasses a recreation center, a library, and the fire department to save hydro costs and heating costs.
- The former fire hall in Madawaska was sold in 2018 as a surplus building because it was not being utilized for its intended purpose.
- Municipal staff reviewed all streetlights and sentinel lights, and some inactive lights were identified, and the municipality was reimbursed.
- Municipality took advantage of a retrofit matching program to upgrade lighting in municipal buildings.
- Township office lighting upgraded from florescent tubes to LED tubes.
- New propane furnace installed at Lester B.Smith Community Center in 2017.
- New propane boiler furnace installed at Township Office/Seniors building in 2022.
- Staff and Council involvement through attendance of LAS workshops.

INITIATIVES

- Upgrade internal lighting in buildings with LED lighting.
- Staff awareness programs, posters, turn off lights, computers.
- Aging furnaces be replaced with propane furnaces to save cost and efficiencies.
- Aging appliances be replaced with energy efficient products.
- New buildings be built with efficiencies.
- Inform the community and staff of energy consumption goals.
- Application for electric vehicle charging stations with eCamion Incorporated, a no-cost hosting program.
- Over the next five years the Township will continue with current practices in order to control energy consumption while investing into reserve funds to maintain and upgrade the existing infrastructure.

1.1.9 Conservation Demand Measures

Goals and Measures are the actions that are taken to save energy and to help achieve the goals and objectives of the municipality. The Township of South Algonquin is committed to implementing organizational and behavioral measures that can produce energy savings and raise awareness on conservation and efficiencies.

GOALS and MEASURES	ACTIONS	PERFORMANCE MEASURES
Install occupancy sensors in all washrooms, storage cupboards and staff rooms	As upgrades are needed change to sensory lights	Reduced cost Less staff monitoring
Set goals and objectives to consider efficiencies when replacing aging infrastructure	Investigate heating/cooling systems. To include a review of the Lestersmith community center.	Increase efficiencies
Develop, encourage, and implement an employee engagement program to solicit energy saving ideas from public agency staff	Continue to update and train staff on the energy management plan and energy initiative	Reduce costs increase awareness
Implement a periodic hydro review program	Review hydro usage with Hydro One rate plan calculator	Reduced cost
Continue to implement mechanical and building system upgrades	Continue to investigate savings through betterment or replacement	Reduce costs, extend life of system, find cost savings
Develop and implement a building component condition checklist (Appendix A)	For employees to check mechanical equipment and other building components	To maximize life of equipment

Over the next five years the Township will continue to use best practices in order to control energy consumption while finding funding to assist with goals of achieving efficiencies. The staff and Council will work diligently to ensure they are fiscally responsible to their residents and are mindful of the health and wellbeing of their citizens. The municipality does not have the financial resources to invest in changing existing infrastructure but will continue to seek funds through the province whenever available.