



Energy Reporting and Conservation and Demand Management Plan

City of St. Thomas

Table of Contents

1.0 Overview	3
1.1 Introduction	3
1.2 About the City of St. Thomas	4
1.3 Alignment with Strategic Plan	4
2.0 City of St. Thomas in 2030: An Energy Vision	5
2.1 Vision Statement	5
2.2 Goals and Objectives	5
3.0 City of St. Thomas Energy Baseline	6
3.1 Measures Taken Under the Previous Plan	6
4.0 Summary of City of St. Thomas Energy Assets	8
4.1 City of St. Thomas Properties Overview	8
4.2 City of St. Thomas Fleet and Equipment Overview	9
5.0 Energy Consumption	10
6.0 City of St. Thomas Energy CDM Plan 2025-2029	11
6.1 What Are We Currently Doing	11
6.2 Looking Ahead: 2025 and Beyond	12
7.0 Approval	13
8.0 Conclusion	14
Appendix A	15

1.0 Overview

The City of St. Thomas continues to take a measured and responsible approach to energy conservation and demand management. This 2025–2030 Energy Conservation and Demand Management (CDM) Plan builds on the progress made in previous plans and outlines the City’s goals and priorities for the next five years. It reflects a commitment to improving operational efficiency, reducing energy costs where feasible, and supporting the delivery of reliable municipal services.

This plan is prepared in accordance with Ontario Regulation 507/18 under the Electricity Act, 1998, which requires broader public sector organizations to report annually on energy consumption and greenhouse gas emissions, and to update their CDM plans every five years.

1.1 Introduction

The 2025–2030 Energy Conservation and Demand Management (CDM) Plan marks an important step forward in the City of St. Thomas’ efforts to manage energy use across municipal operations. This plan outlines a clear, practical framework for identifying opportunities to improve energy efficiency, reduce utility costs where possible, and support the long-term sustainability of City assets.

Energy is a key input in the delivery of public services, and a structured approach to energy management contributes to responsible stewardship of municipal resources. While the City has implemented various energy-related improvements in recent years, this plan formalizes the approach and strengthens the foundation for future progress.

Changes to the provincial reporting platform in 2021 affected how energy data is calculated and reported. Under Ontario Regulation 25/23, municipalities must now submit monthly energy usage data to generate normalized results, while annual reports continue to fulfill regulatory obligations.

1.2 About the City of St. Thomas

The City of St. Thomas is a single-tier municipality located in Southwestern Ontario, nestled between Elgin and Middlesex Counties. Spanning 22.6 square kilometers, the city is known for its rich history, thriving local economy, and strong sense of community.

St. Thomas is a transportation hub with a deep connection to Canada's railway heritage, playing a key role in the development of the region. With a growing population and an expanding array of services, the City is committed to providing its residents with modern amenities, opportunities for business, and a high quality of life. Its strategic location and infrastructure make it a prime destination for both residents and visitors alike.

1.3 Alignment with Strategic Plan

The Energy Conservation and Demand Management (CDM) Plan aligns with the City of St. Thomas' Strategic Plan by supporting sustainable growth and environmental stewardship:

Environmental Stewardship (Priority #6): The CDM Plan focuses on reducing energy consumption and greenhouse gas emissions, directly contributing to the city's commitment to a greener, more sustainable future.

Sustainable Community Growth (Priority #2): By integrating energy efficiency into capital planning, the CDM Plan ensures energy-conscious development, fostering long-term, sustainable growth.

Excellence in All We Do: The plan promotes operational excellence through energy-efficient upgrades, supporting high-quality public services and cost-effective facility management.

Safety and Well-being: The CDM Plan helps improve the City's environmental impact, contributing to a healthier, safer environment for residents and staff.

Progressive Technology and Data (Priority #4): The adoption of advanced data reporting and management supports continuous improvement in energy use and sustainability.

This plan is a key part of advancing the City's vision for a sustainable, resilient future.

2.0 City of St. Thomas in 2030: An Energy Vision

By 2030, the City of St. Thomas aims to demonstrate responsible energy management across its operations. The City is committed to continuous improvement in energy efficiency, supporting cost-effective investments, reducing environmental impact where feasible, and ensuring compliance with provincial requirements. This vision reflects a balanced approach—prioritizing reliability, affordability, and practicality in energy-related decisions.

2.1 Vision Statement

To responsibly manage municipal energy use by improving efficiency, reducing waste, and supporting fiscally and environmentally sound practices in City operations.

2.2 Goals and Objectives

Goal 1: Improve energy efficiency in City operations.

- Identify practical opportunities for reducing energy use in buildings and fleet through upgrades or operational changes.
- Focus on improvements that deliver cost savings or reduce long-term maintenance needs.
- Maintain compliance with energy reporting requirements under O. Reg. 25/23.

Goal 2: Strengthen energy monitoring and decision-making.

- Continue tracking monthly utility usage and costs.
- Monitor trends in facility and fleet performance to inform budget and project planning.
- Use available data to identify assets with potential for energy savings.

Goal 3: Integrate energy considerations into capital and asset planning.

- When replacing equipment or systems, select energy-efficient options where feasible and cost-justified.
- Align energy-related decisions with broader infrastructure needs and lifecycle planning.

Goal 4: Support awareness and operational best practices.

- Encourage energy-conscious behaviours among staff.
- Provide updates to management on energy performance and opportunities.
- Recognize low-cost, practical improvements made through day-to-day operations.

3.0 City of St. Thomas Energy Baseline

The City of St. Thomas has prioritized energy conservation and demand management since 2009. The City's first formal Consumption and Demand Management (CDM) Plan spanned from 2009 to 2018, outlining a strategy to reduce energy use and greenhouse gas emissions across key municipal facilities. This plan served both as a foundational review of the City's energy performance and as a forward-looking guide for ongoing improvements.

3.1 Measures Taken Under the Previous Plan

To establish a baseline and identify opportunities for energy savings, the City retained Genivar to conduct detailed energy audits on seven of its most active and energy-intensive facilities:

- City Hall and Annex
- Justice Building (*Elgin County Courthouse*)
- Public Works Administration
- Main Fire Station
- Pinafore Park Administration Building
- Timken Community Centre (*Joe Thornton Community Centre*)
- Memorial Arena

These audits revealed practical, cost-effective opportunities to reduce energy consumption—primarily through upgrades to building systems and equipment. Recommended measures were implemented over time through scheduled maintenance, capital projects, and end-of-life equipment replacements. Key actions included:

- Replacing outdated lighting with LED fixtures and upgrading from T12 to T8 fluorescents with electronic ballasts.
- Installing variable speed drives where applicable.
- Upgrading HVAC systems with more efficient models.
- Replacing windows and other building envelope improvements for greater thermal efficiency.

The City also leveraged funding opportunities such as Gas Tax and ERIP (Energy Retrofit Incentive Program) to offset capital costs. Since 2009, the City has invested approximately \$1.2 million in demand reduction projects.

Energy Consumption Results

By 2012, the City had achieved measurable reductions in energy use compared to the 2009 baseline:

- Annual electricity consumption decreased by 115,706 kilowatt hours.
- Annual natural gas consumption dropped by 609,908 cubic metres.

While some facilities saw increased consumption—partly due to the addition of new buildings—overall reductions demonstrated that the implemented measures were effective. However, without dedicated consumption tracking at the time, it was difficult to isolate the causes of increases or assess performance with precision.

Goals and Objectives from the Previous Plan

The City established clear goals under its first CDM Plan:

- Achieve a 15% reduction in energy use from the 2009 baseline.
- Complete the remaining recommendations from the Genivar energy audits.
- Embed energy efficiency into procurement and equipment replacement decisions.
- Increase staff awareness and encourage long-term behavioral change to support conservation.

4.0 Summary of City of St. Thomas Energy Assets

The City of St. Thomas' CDM Plan pertains solely to internal affiliated within the Corporation. Overall, the City of St. Thomas is responsible for the energy consumption of 51 properties (detailed listing found in Appendix A), 219 fleet and motorized equipment, 5248 street lights and 43 traffic lights (signalized intersections) and associated infrastructure (i.e. pedestrians signals). Properties are powered by grid electricity and natural gas, fleet and motorized equipment are powered by a mix of gasoline, hybrid, electric and diesel vehicles, and the street lights are mainly powered through grid electricity, with select pedestrian crossovers being solar powered.

4.1 City of St. Thomas Properties Overview

Property Category	Number of Properties	Total Gross Building Area (ft ²)
Administration	1	40,000
Airport Facilities	7	37,010
Community Centres	4	193,430
Museums and Heritage Sites	3	4,946
Parks and Recreation Facilities	7	28,745
Fire Stations	3	31,709
Long Term Care Facilities	1	85,000
Police Stations	1	22,875
Public Library	1	10,900
Municipal Operations and Environmental Services	4	37,135
Community Support Services	3	46,328
Supportive Housing and Mixed-Use Facilities	4	31,526
Public Housing Apartment Buildings	11	240,985
TOTAL	50	810,589

4.2 City of St. Thomas Fleet and Equipment Overview

Fleet Category	Number of Vehicles				
	Diesel	Gasoline	Propane	Hybrid	Electric
Airport Specialty	1	1			1
Bus	11	3			
Equipment - Ground Power Unit	2				
Equipment - Small	7	8			
Equipment - Utility Vehicle	9	7			3
Heavy Duty	19				
Heavy Equipment	8				
Ice Resurfacer			3		1
Lift	1	1	1		
Light Duty - Car		1			3
Light Duty - Mini Pickup				1	
Light Duty - Pickup	1	25			
Light Duty - SUV		3			
Light Duty - Van		3			1
Medium Duty		12			
Mower	12	5			
Tractor	20				
FIRE SERVICES					
Equipment - Utility Vehicle	1				
Heavy Duty	7				
Light Duty - Pickup		2			
Light Duty - SUV		1		1	
POLICE SERVICES					
Light Duty - Car		8			
Light Duty - SUV		9			
Light Duty - Van		6			
Light Duty - Truck		10			
TOTAL	99	105	4	2	9

5.0 Energy Consumption

The following chart provides annual energy consumption data for City facilities for 2024 (the last year for which complete information is available for a full year).

Operation Name	Electricity (kWh)	Natural Gas (Cubic Metre)
Administration	396,121	26,125
Airport Facilities		29,616
Community Centres	2,972,199	253,702
Museums and Heritage Sites	43,731	3,976
Parks and Recreation Facilities	681,142	185
Fire Stations	218,354	39,069
Long Term Care Facilities	1,409,040	308,534
Police Stations	506,044	30,600
Public Library	248,650	15,787
Municipal Operations and Environmental Services	2,952,697	175,908
Community Support Services	3,535,270	46,272
Supportive Housing and Mixed-Use Facilities	179,354	82,266
Public Housing Apartment Buildings	1,955,115	228,925
TOTAL	15,097,719	1,240,964

The energy consumption data presented above will provide a baseline for the energy consumed prior to the development and implementation of the City's CDM plan. In accordance with section 5(7) of Ontario Regulation 397/11, the City of St. Thomas will publish updated energy consumption information by July 1 of each year on our website.

6.0 City of St. Thomas Energy CDM Plan 2025-2029

This section outlines the City of St. Thomas' ongoing and planned efforts to manage energy use, improve efficiency, and reduce operating costs where feasible. The approach focuses on practical upgrades, better tracking, and incremental improvements that align with the City's long-term infrastructure and asset management priorities.

6.1 What Are We Currently Doing

The City of St. Thomas continues to take incremental steps to improve energy efficiency across various facilities and operational areas. The measures outlined below reflect initiatives that are achievable within current budgets and operational plans, with a focus on reducing energy use and maintaining regulatory compliance.

Action Item	Forecast of the Expected Results	Savings Estimate	Estimated Time
Upgrade lighting to LED in prioritized facilities	Reduced electricity consumption and lower maintenance costs	Estimated 5–10% reduction in lighting energy use per facility	Ongoing (2025-2030)
Implement improved HVAC scheduling for key buildings	Optimized heating and cooling to reduce energy waste during off-hours	Cost savings through reduced natural gas/electricity usage	Initiated in 2025; continuous monitoring
Ensure energy-efficient systems are prioritized when upgrading or replacing municipal infrastructure.	Reduced long-term energy costs and improved asset lifecycle.	Variable, dependent on specific projects.	Ongoing integration into planning.
Regularly review and communicate energy data and progress with City management.	Enhanced decision-making based on real-time energy performance insights.	Improved operational adjustments and future project planning.	Ongoing (2025-2030)

6.2 Looking Ahead: 2025 and Beyond

Building on previous efforts, the City will continue to refine its energy management practices by focusing on achievable improvements, better tracking of consumption, and integration of energy considerations into routine maintenance and capital planning.

A CDM Committee will be established in 2025 to support coordination across departments, evaluate ongoing initiatives, and identify priorities for future upgrades. The City will also monitor developments in energy-efficient technologies and funding opportunities to assess feasibility for future implementation.

This approach balances operational needs with energy reduction goals, ensuring continued progress while maintaining fiscal responsibility and service delivery.

7.0 Approval

This Energy Reporting and Conservation and Demand Management Plan has been approved by Lisa Higgs, City Manager for the City of St. Thomas, and will be presented to St. Thomas City Council.

8.0 Conclusion

The City of St. Thomas' 2025-2029 Energy Conservation and Demand Management Plan provides a structured yet adaptable approach to managing municipal energy use. The plan prioritizes incremental efficiency improvements, cost-effective upgrades, and stronger tracking and reporting to ensure responsible energy management.

Annual reporting and ongoing facility assessments will support practical decision-making while maintaining the flexibility to adjust as new opportunities arise. The City remains committed to meeting regulatory requirements and making thoughtful, data-driven improvements that enhance efficiency over time.

Appendix A

City of St. Thomas General Property Listing

Name	Address
<u>Administration</u>	
City Hall	541-545 Talbot Street
<u>Airport Facilities</u>	
Airport	44989 Talbot Line
Sky Navigator Hangar	44989 Talbot Line
WW2 Airport Hangar (Leased)	44989 Talbot Line
Airport Storage Building	44989 Talbot Line
Airport Maintenance Garage	44989 Talbot Line
Generator Building including Generator	44989 Talbot Line
Fuel Centre	44989 Talbot Line
<u>Community Centres</u>	
Joe Thornton Community Centre	75 Caso Crossing
Memorial Arena	80 Wilson Avenue
Seniors Centre	200-225 Chestnut Street
Jaycee Outdoor Pool	93 Inkerman Street
<u>Museums and Heritage Sites</u>	
Caboose	65 Talbot Street
Horton Market	10 Manitoba Street
Railway City Tourism Office	605 Talbot Street
<u>Parks and Recreation Facilities</u>	
NYC Ball Park	47 Jonas Street
Waterworks Park	2 South Edgeware Line
Pinafore Park	95 Elm Street
Athletic Park	95 St George Steet
Doug Tarry Complex	275 Bill Martyn Parkway
1Password Park	355 Burwell Road
Centennial Ball Complex	51 Sauve Ave
<u>Fire Stations</u>	
Fire Station #1 (Headquarters)	305 Wellington Street

Fire Station #2	235 Burwell Road
Fire Station #3 (Planned)	Queen Street
<u>Long Term Care Facilities</u>	
Valleyview	350 Burwell Road
<u>Police Stations</u>	
St. Thomas Police Services Headquarters Building	45 Caso Crossing
<u>Public Library</u>	
Library	152 Curtis Street
<u>Municipal Operations and Environmental Services</u>	
Public Works Depot	100 Burwell Road
Pollution Control Plant	40359 Bush Line
Community Recycling Centre	330 South Edgeware Road
Transit Building	612 Talbot Street
<u>Community Support Services</u>	
Animal Shelter	100 Burwell Road
Social Services	230 Talbot Steet
Childcare Centre	25 St Catherine Street
<u>Supportive Housing and Mixed-Use Facilities</u>	
Emergency Shelter	10 Princess Avenue
Railway City Lofts	614 Talbot Street
Wellington Block	50 Wellington Street
BX Tower	21 Moore St
<u>Public Housing Apartment Buildings</u>	
St Thomas Apartments - 28 units	76 Churchill St
St Thomas Apartments - 30 units	5 Morrison Drive
St Thomas Apartments - 28 units	16 Celestine Drive
St Thomas Apartments - 102 units	200 Chestnut
St Thomas Apartments - 38 units	45 St Annes
West Lorne Apartments - 25 units	144 main St
Aylmer Apartments - 36 units	49 Chestnut
Aylmer Apartments - 29 units	58 Myrtle

Rodney Apartments - 11 units	253 Ridout
St Thomas Detached and Semi-Detached - 1 unit	89 Elm Street
St Thomas Detached and Semi-Detached - 18 units	Kiwant (113-127 First Ave)