City of Thorold

Energy Conservation and Demand Management Plan, 2024-2029

TREE HOUSE
ENERGY SERVICES

Acknowledgements

A number of City Staff from Community Services provided their invaluable contributions to this Plan using their expertise and institutional knowledge; they include Geoff Holman, Karen Olm, Jerry Franceschini, David Baldoni, and Brenda Radford.

Tree House Energy Services would especially like to thank Geoff and Karen who acted as the primary contacts.

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Executive Summary

The City of Thorold is situated south of Lake Ontario and centrally located in the Niagara Region; The City has a total population of 22,000 residents with a number of parks and facilities that serve its community; there are a total of 20 municipal facilities including libraries, community centres and arenas.

The management of these facilities are a key part of the Strategic Plan, 2024-2027 under Priority 2: Vibrant and Prosperous Community as well as Priority 3: Sustainability, which state management actions for the maintenance of recreational facilities; expanding and enhancing infrastructure to enable sustainable growth and economic development; and the prioritization of infrastructure projects based on critical needs, aging systems, environmental risks, and community needs.

This Energy and Conservation Demand Management (CDM) Plan aligns with the priorities of the Strategic Plan and charts a new five-year road map for 2024-2029 with transformative initiatives that build on past accomplishments in energy efficiency and renewable energy that included lighting, heating, cooling and ice plant upgrades as well as rooftop solar PV systems for the City's facilities. While these accomplishments supported an overall reduction in energy use of 18% from 2022 to 2023—new initiatives need to be pursued to chart a sustainable and transformative path for community, financial and environmental benefits. These benefits can be realized starting with a net zero study that includes the following initiatives:

- Create an implementation road map that targets net zero energy and emissions
- Pursue 5 and 10 year reduction targets while planning for a longer term 20 year target
- Study and model options for energy efficiency, conservation and renewable technology
- Apply for third party study funding
- Develop action plans for the City's larger energy consuming facilities which are City Hall, Operations, Frank Doherty Arena and the Thorold Aquatic Centre

Achieving the five year target could start with retrofitting City Hall's heating and cooling systems that are near end of life with high efficiency heat pumps.

The study with its transformative initiatives will also act as a springboard for asset management to integrate the co-benefits of facility and net zero planning. It's recommended that the results from the study—including the implementation budget—inform the 10 year asset management plan to ensure that options for energy efficiency, conservation and renewable technology are considered.

1 Background and Introduction

The City of Thorold is located south of Lake Ontario and centrally located in the Niagara Region. Founded in 1788 to provide land to Loyalist refugees and disbanded soldiers following the American Revolutionary War it was originally labeled Township No. 9, later renamed Thorold in 1793 after Sir John Thorold, an English baronet and member of Parliament. Thorold originally included the early communities of Beaverdams, Decew Falls, and St. Johns, but after the opening of the first Welland Canal in 1829 the original communities were superseded by the new canal villages of Thorold, Allanburg and Port Robinson. In 1850 Thorold was incorporated as a Village, then a Town in 1870. After the Region of Niagara was formed in 1970, the Town of Thorold was expanded to include the Township, and later became the City of Thorold in 1975. The City is divided by the Welland Shipping Canal containing many of the Canals Locks. The City has a total population of 22,000 residents with a number of parks and facilities that serve its community; there are total of 20 municipal facilities including libraries, community centres and arenas.

Facilities operations and maintenance is performed by the City and this also includes energy management. The City mentions facilities in their Strategic Plan, 2024-2027 under Priority 2: Vibrant and Prosperous Community as well as Priority 3: Sustainability.

The connection between the Strategic Plan and Energy Management and Conservation Demand Management (CDM) Plan, 2024-2029 is described in the following section.

2 Energy Management

2.1 Plans and Regulations: Municipal, Provincial and Federal

The Strategic Plan includes the following actions related to the management of facilities and the environment:

- Invest in the development and maintenance of parks, trails, and recreational facilities
- Expand and enhance our infrastructure to enable sustainable growth and economic development
- Prioritize infrastructure projects based on critical needs, aging systems, environmental risks, and community needs

This CDM Plan includes initiatives to build on these actions. It also reports on the results of initiatives outlined in the 2014-2019 plan.

A new five-year road map is included in this 2024-2029 Plan and will include initiatives that have the potential for sustainable revenue in the form of cost recovery and environmental benefits in the form of energy and emission reductions. Some initiatives may also provide a combination of both.

Ontario Regulation 25/23

This CDM Plan also satisfies Regulation 25/23 Broader Public Sector: Energy Reporting and Conservation and Demand Plans Management Plans. This regulation falls under the ELECTRICITY ACT, 1998 that requires public agencies prepare, publish, and implement energy conservation and demand management plans. The CDM Plan must document annual energy consumption and greenhouse gas emissions resulting from municipal operations, and describe previous, current and proposed measures for conserving and reducing the amount of energy consumed. The Plan manages municipal demand for energy and includes a forecast of the expected results of current and proposed measures. A list of the required facilities that municipalities are to include in their annual energy consumption reports can be found in Appendix C: Required Facilities, O. Reg. 25/23. The Electricity Act further requires a description and a forecast of the expected results of current and proposed activities. It is to outline measures to conserve the energy consumed by City operations and to otherwise reduce the amount of energy consumed, including by employing such energy conservation and demand management methods as may be prescribed. The CDM Plan should summarize progress and achievements in energy conservation and other reductions since the previous plan. The CDM Plan must be posted on the City's website and available in printed form in the municipal office.

Powering Ontario's Growth

Related to O. Reg. 25/23 and energy management, Ontario has a plan to provide families and industries with reliable, low-cost and clean power[1] with ten actions including:

Energy Efficiency: Planning for the future of energy efficiency programs in Ontario
Next Competitive Electricity Procurement: Starting planning for Ontario's next competitive electricity procurement focused on new clean resources including wind, solar, hydroelectric, batteries and biogas.

The Energy Efficiency action could align with the City's action to "Prioritize infrastructure projects based on critical needs, aging systems, environmental risks…" Electricity procurement of new clean resources may continue align to the City's past procurement of renewable generation systems. Supporting the province's procurement of clean resources may also contribute to the City's own emissions reductions in the context of the federal act which is covered in the following section.

For details on the City's energy and emissions management approach, see Section 4, Conservation and Demand Management Plan as well as its sub-sections.

Net Zero Pathways Accountability Act

The purpose of this Act that was passed by federal government is to require the setting of national targets for the reduction of greenhouse gas emissions based on the best scientific information available and to promote transparency, accountability and immediate and ambitious action in relation to achieving those targets, in support of achieving net-zero

[1] https://www.ontario.ca/page/powering-ontarios-growth#section-1

emissions in Canada by 2050 and Canada's international commitments in respect of mitigating climate change. Under this Act, the national greenhouse gas emissions target for 2050 is net-zero emissions[2]. Although, O. Reg. 25/23 does not require a plan for emission reductions, it does require the reporting of GHG emissions and a description of any renewable energy generation facility operated by a public agency and the amount of annual energy produced. To date there has been declarations of climate emergencies by 650 municipalities[3].

2.2 Completed Initiatives

The City has completed the following CDM initiatives at their facilities to manage their energy consumption. Some major projects with highlights:

Lighting

The City has successfully completed lighting upgrades at various facilities:

- Upgraded lighting to LED technology for Operations building that resulted in estimated demand and consumption savings of 40-50% from the previously installed technology
- Replaced in-pool lighting at the Aquatic Centre with LED lamps that are more than nine times efficient than the original halogen lamps
- Retrofitted exterior compact fluorescent soffit lighting at City Hall to LED multi-coloured lighting that resulted in consumption savings of 40-50%
- Updated lighting in the Frank Doherty Arena to LED technology including arena bowl, lobby and dressing rooms that resulted in estimated demand and consumption savings of 40-50% from the previously installed lighting

Refrigeration Plant

At Frank Doherty Arena, the plant was serving two ice pads and has been resized to serve one ice pad which also included state of good repair work. It's estimated this retrofit has saved 8,000 kWh of electricity per year based on the installation of a variable frequency drive (VFD) for the condenser fan. Additional work includes:

- Installed two new compressors
- Installed two new motors with one motor reduced in horsepower from 100 to 60hp
- Removed one existing brine pump (20hp motor) and replaced other one with a new brine pump (25hp motor)
- Installed new condenser pumps and motors with VFDs

HVAC

As part of the Operations building and new addition project, the heating and cooling systems were upgraded with higher efficiency air handling units equipped variable frequency drives that serve the Operations building and new addition. The drives and control systems for these units can average savings of 35% of electricity use and 5% of gas use by reducing fan power and conditioned air volumes when there is less demand for them. While there is some tracking of

[2] https://laws-lois.justice.gc.ca/eng/acts/c-19.3/fulltext.html

[3] https://raog.ca/climate-emergency-declarations-canada/#:~:text=January%2018%2C%202022-,650%20Municipalities%20have%20Declared%20a%20Climate%20Emergency%20in%20Canada,the%20rest%20of%20the%20world

this energy conservation measure with the building control and automation system, it is recommended that operation of the drives be intentionally logged to determine and report on energy savings.

Building Envelope

The new doors were installed with combined R-value of 2.04 which consider window glass[4]. It's recommended to use Energy Star certified doors that are about 15% more energy efficient.[5]

2.3 Current Energy Consumption

2.3.1 Facilities List

Table 1 below lists the facilities and their property details. Square footage and operating hours were verified with the City.

Table 1. Facilities List

Property Name	Address 1	Postal Code	Weekly Operating Hours	Property GFA - Self-Reported (ft^2)
Allanburg Community Centre	1560 Falls Street	L0S 1A0	49.0	6,900
Arenas (Frank Doherty)	70 Front Street North	L2V 4A7	56.0	33,594
Battle of Beaverdams Park	Sullivan Avenue	L2V 4A7	7.0	1,195
C. E. Grose Park	48 McMann Drive/0 Ann St	L2V 4A7	2.0	807
City Hall	3540 Schmon Parkway	L2V 4Y6	40.0	14,693
Darlene Ryan Port Robinson Community Centre	40 Cross Street	L2V 4A7	49.0	2,497
Fire Station #1	16 Towpath Street	L2V 4A7	168.0	7,998
Fire Station #2	701 Allanburg Road	L2V 4A7	168.0	13,799
Fire Station #3	7 River Street/39 Bridge St E	L2V 4A7	168.0	2,799
Fire Station #4	2189 Highway 20	L2V 4A7	168.0	8,493

[4] If the doors did not have window glass, it would have an R-value of 6.

[5] https://natural-resources.canada.ca/energy-efficiency/products/windows-doors-and-skylights/13739

Property Name	Address 1	Postal Code	Weekly Operating Hours	Property GFA - Self-Reported (ft^2)
Lakeview Cemetery (garage)	3651 Thorold Townline Road	L2V 4A7	40.01	2,992
Lakeview Cemetery (admin & maus.)	3651 Thorold Townline Road	L2V 4A7	40.0	7,794
Lock 7 Viewing Centre	50 Chapel Street South	L2V 4A7	66.0	1,399
McMillan Park	Carleton Street South/0 Chapel St S	L2V 4A7	42.0	108
McMillan Park	Carleton Street North	L2V 4A7	30.0	990
Operations	1543 Beaverdams Road	L2V 4A7	40.0	19,999
South Confederation Park	Confederation Avenue	L2V 4A7	56.0	743
Seniors Centre	8 Carleton Street South	L2V 4A7	49.0	20,398
Sullivan Park	Elgin Street	L2V 4A7	14.0	1,098
Thorold Outdoor Aquatic Centre	111 Richmond Street	L2V 4A7	35.0	3,681

2.3.2 2019 and 2023 Energy Use

The following table states the electricity and natural gas use figures in 2022 and 2023 for the facilities required under O. Reg. 25/23 (see Appendix B – Compliance with O. Reg 25/23 for more details on reporting requirements). 2022 is the base year and 2023 is compared to it in the Benchmarking section[6]. These figures are not adjusted (unnormalized) for weather effects on energy use. There has been a decrease in electricity use and natural gas use with a corresponding decrease in GHG emissions. The major decrease in energy use is due to decreases for the Arenas (Frank Doherty), Operations and Fire Stations 1 to 4 and this decrease is in spite of increases at City Hall and the Aquatic Centre.

2022 Energy Use		2023 Energy Use		Percent Change		Percent Change
Electricity (kWh)	Gas (m^3)	Electricity (kWh)	Gas (m^3)	Electricity (kWh)	Gas (m^3)	Electricity and Gas
802,063	268,127	741,713	211,491	-7.5%	-21.1%	-18.1%

[6] A full set of data was not available for years 2019-2021

GHG Emissions (tonnes $CO2_e$)		Percent Change in GHG Emissions
2022	2023	
545	434	-20.4%

2.3.3 Weather Normalized Energy

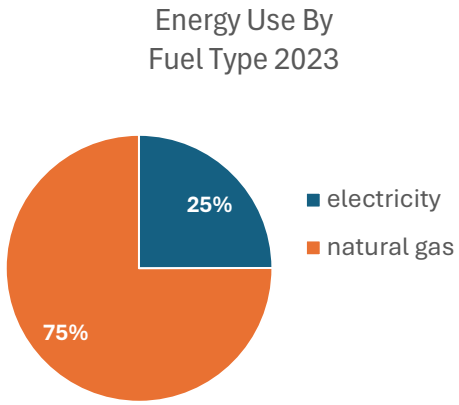
What is weather normalized energy?

In Portfolio Manager, weather normalized energy is the energy your building would have used under average conditions (also referred to as climate normals). The weather in a given year may be much hotter or colder than your building's normal climate; weather normalized energy accounts for this difference. In order to normalize weather data, at least 12 months of energy data for a calendar year must be available.

The normalized weather energy data was also reviewed for the largest users namely: Arenas (Frank Doherty), City Hall, and Thorold Aquatic Centre and decreases in energy use were still found for these larger users. It's recommended that monthly data can be entered so that weather normalized analysis can be used in the future.

2.3.4 Breakdown of Energy Use by Type

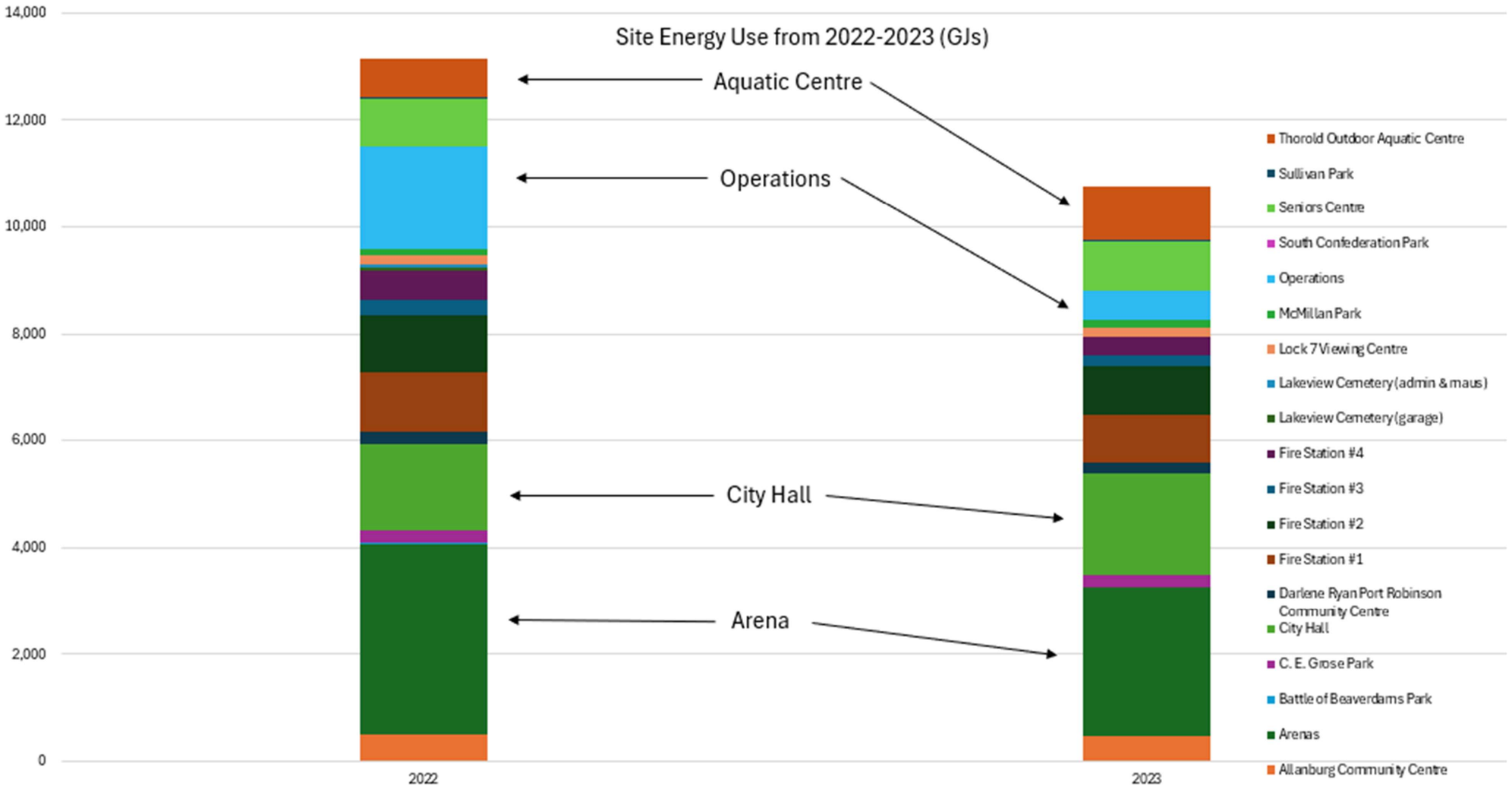
A pie graph of the consumption for all facilities is shown below and the figures are a percentage of the number of Joules[7] for each fuel type divided by the total of number Joules. As indicated in the previous section electricity use in 2023 was 741,713 kWh and natural gas use was 211,491 m^3.



[7] A joule is defined as watt-second. A watt is the amount of energy that an electrical device (such as a light) is burning per second that it's running, thus a 10W (LED) bulb is burns 10 Joules energy every second.

2.4 Benchmarking Facility Energy Use

As referenced in Section 2.3, facilities reported as per O. Reg. 25/23 are included and also benchmarked in the chart below for annual 2023 energy use. As previously mentioned, City Hall, Operations, the Arenas (Frank Doherty), and Thorold Aquatic Centre are the largest energy users.



2.5 Renewable Energy

The City has four existing solar PV systems each at a different municipal building. Each system has a capacity of 10 kW and is located on the roof. Each building's solar PV system contains approximately 40 solar modules. They continue to be part of the MicroFIT program, where they receive $0.549 per kWh for a period of 20 years. The generation figures are transcribed from Hydro One accounts and are in Appendix C – Solar PV Data. The average generation is shown in Table 2. The total revenue generated from 2022-23 (including available 2024 figures) is $41,960.72. The City Hall site has not been showing any generation and currently indicates monthly service charges from Hydro One that have totaled about $631.92 (including available 2024 figures). Facilities staff are investigating the City Hall system.

Table 2. Solar PV Location, Capacity, Generation, and Installation Year

No.	Renewable Energy System Locations	System Type	Cap. (kW)	Annual Generation (kWh)	Install Year
1	8 Carleton St South Senior Centre	Rooftop	10	11,790	2022
2	701 Allanburg Road Fire Station 2	Rooftop	10	11,520	2022
3	2189 Canboro Road Fire Station 4	Rooftop	10	10,790	2022
4	3540 Schmon Parkway City Hall	Rooftop	10	0	2022

3 Resources

3.1 Team

Energy Leader:

For the CDM Plan, Thorold formed an Energy Conservation Team consisting of representatives from Community Services.

The need for staff resources become more significant as sustainable energy reductions could become more challenging to achieve. It suggested that an energy champion lead projects that could provide deeper reductions. The projects could be funded from third party programs.

3.2 Funding

The City has been successful with funding applications including the Green Inclusive Community Buildings Program by the federal government. This approved funding is for a new Museum and Cultural Centre (located on the former Fire Station 1 property) and this project is in the design phase with 2028 as the current year for completion.

Another example of a third-party program that could be leveraged to fund further energy reductions is the Green Municipal Fund. This fund is a program overseen by the Federation of Canadian Municipalities. It has a number of funding streams including a Community Buildings Retrofits stream that funds studies as well as capital projects to reduce emissions which could also include energy reductions.

4 Conservation and Demand Management (CDM) Plan

4.1 Projects, Programs and Policies

A number of initiatives that are project-based have been planned for the City and are described in Appendix A – CDM Plan Initiatives. Project initiatives are essentially retrofits at specific facilities that have been identified for energy savings (and/or cost recovery), reductions in emissions or a combination of both.

Regarding clean electricity procurement by the province (as referenced in Section 2), the City in its Strategic Plan would like "Prioritize infrastructure projects based on critical needs, aging systems, environmental risks, and community needs." , it suggested that the City consider further investments in renewable energy--which is a form of clean energy--to reduce its increased electricity use and recover costs as well as support the reduction of GHG emissions. A suggested investigation is included in Appendix A.

Appendix A – CDM Plan Initiatives

Proposed Initiatives	Facility	Detailed Description	Annual Savings	Completion Year
Upgrade Domestic Hot Water Heater	City Hall	According to the BCA, a hot water heater was not visible during the site assessment. It is assumed to be installed in 2006. It's recommended to upgrade with a high efficiency instantaneous heater to reduce heat losses during storage.	The gas savings are estimated to be 15-20%.	2024
Upgrade of Split System	City Hall	A split system AC unit is located in the IT room with the condensing unit on the flat roof and are in poor condition. The equipment is noted older and is approaching the end of service life. The system is manufactured by 'Comfort Aire', Model No. A-DVC24SF-1 with 2 tons capacity. It's recommended that these units be replaced with new split AC units that are more energy efficient.	Energy performance of proposed split unit AC is estimated to be at least 50% better than minimum energy performance regulations for split units in 2010.	2025
Upgrade of Packaged Rooftop Units	City Hall	Two gas-fired packaged rooftop units are located on the flat roof and are in poor condition. The units are manufactured by 'Carrier', Model No. 48ME012-A01A0, Serial No. 1908C20771 and Model No. 48HJR009-161, Serial No. 3208G20742 with a heating capacity of 224,000 BTUH and 180,000 BTUH, a cooling capacity of 114,000 BTUH and 103,000 BTUH and 9.5 tons and 8.5 tons using R-22 refrigerant.	Heat pumps using electricity for heating instead of a gas furnace have efficiencies well over 100% in contrast to furnace which are below 100%.[8] Heat pump rooftop units (RTUs) are estimated to reduce GHG emissions and energy costs by up to 50%	2025

[8] https://natural-resources.canada.ca/energy-efficiency/energy-star-canada/about/energy-star-announcements/publications/heating-and-cooling-heat-pump/6817#d2

Proposed Initiatives	Facility	Detailed Description	Annual Savings	Completion Year
		R-22 refrigerant is no longer used in the industry. It's recommended to replace these units with higher efficiency heat pumps.	compared with conventional RTUs (with natural gas heating).[9]	
Upgrade Packaged Rooftop Units	City Hall	One gas-fired packaged rooftop unit is located on the flat roof and is in poor condition. The unit is manufactured by 'Trane', Model No. YCD240BWH0JB, Serial No. 748100607D with a heating capacity of 240,000 BTUH, a cooling capacity of 20 tons using R-22 refrigerant. R-22 refrigerant is no longer used in the industry. It's recommended to replace these units with higher efficiency heat pumps.	See previous annual saving description.	2025
Upgrade Lighting - Fluorescent	City Hall	T8 fluorescent lighting fixtures are located throughout the building and were noted in poor condition as well as being older. It's recommended to upgrade the fixtures to LED as part of ongoing maintenance when the lamps burn out.	Approximately 40-50% savings of lighting electricity demand and consumption.	ongoing
Upgrade Lighting - Pot lights	City Hall	Pot lights are located throughout the building and were noted in poor condition as well as being older. HID lights are located at the main entrance. It's recommended to retrofit with LED lamps in the short term as part of ongoing maintenance.	Approximately 40-50% savings of lighting electricity demand and consumption.	ongoing

[9] https://drive.google.com/file/d/1xg8uXMrXJXIbL-0sKzqaYYTKWiOF4cWs/view?pli=1

Proposed Initiatives	Facility	Detailed Description	Annual Savings	Completion Year
Upgrade Lighting - Incandescent	City Hall	Compact fluorescent lights are installed in the council chambers and are in poor condition. The lights were noted to be old and have surpassed their expected service life. Newer LED fixtures are available to reduce energy consumption. It's recommended to retrofit with LED lamps in the short term as part of ongoing maintenance.	Approximately 40-50% savings of lighting electricity demand and consumption.	ongoing
Upgrade Windows	Arena Frank Doherty	A single-glazed wood-framed window is located in the elevator lobby area on the second floor and was noted to be in poor condition. The window is original to the building. It's recommended to replace the window with c double or triple glazed windows that is Energy Star certified in the short term with consideration for weather stripping, if feasible.	Energy Star certified windows are about 20% more energy efficient than the average window.[10]	2025
Upgrade Doors	Arena Frank Doherty	Exterior steel doors (x11) are located on the South and East elevation and elevator machine room and were observed to be in fair to poor condition with varying ages. The South doors were noted to be older; the East doors did not have weather stripping. It's recommended replacement occur in phases beginning in the short term with consideration for weather stripping and Energy Star certified doors.	Energy Star certified doors are about 15% more energy efficient.[11]	2024

[10] https://natural-resources.canada.ca/energy-efficiency/products/windows-doors-and-skylights/13739
[11] https://natural-resources.canada.ca/energy-efficiency/products/windows-doors-and-skylights/13739

Proposed Initiatives	Facility	Detailed Description	Annual Savings	Completion Year
Arena Frank Doherty - Lighting - CFL		Some compact fluorescent lights (x20) remain throughout the building. Newer LED fixtures are available to reduce energy consumption. We recommend upgrading the lighting technology to LED and this can be done through ongoing maintenance	N/A	ongoing

APPENDIX B - COMPLIANCE WITH O. Reg 25/23

In 2019, the City published an Energy Conservation and Demand Management Plan based on and in compliance with Ontario Regulation 507/18 – *Energy Conservation and Demand Management Plans* (O. Reg. 507/18). The regulation also required municipalities and other public sector groups to report annually on energy use and greenhouse gas (GHG) emissions for buildings and facilities in which the agency conducts its operations, that are heated or cooled or are related to the treatment or pumping of water or sewage. See table (which is an excerpt from the regulation) on the following page for details of the required facilities to be reported.

O. Reg. 507/18 has since been revoked and replaced with O. Reg. 25/23. The major amendments to 507/18 that are included in the current regulation are:[12]

1. **Reporting and Tracking:** Moving reporting from a custom-made platform to ENERGY STAR Portfolio Manager.

2. **Reporting Period:** Reporting of 2021 data in 2023, 2022 and 2023 in 2024 and one year (2024) of data in 2025.

3. **Prescriptive Elements:** Updates to the title of form and removal of specific units of measurement to allow BPS organizations to use units they want to report as long it is an industry standard.

The City complies with O. Reg. 25/23 as senior management and Council has adopted the CDM Plan has been placed on the City website.

[12] https://ero.ontario.ca/notice/019-6168

Item	*Type of public agency*	*Operation*
1.	*Municipality*	1. *Administrative offices and related facilities, including municipal council chambers.* 2. *Public libraries.* 3. *Cultural facilities, indoor recreational facilities and community centres, including art galleries, performing art facilities, auditoriums, indoor sports arenas, indoor ice rinks, indoor swimming pools, gyms and indoor courts for playing tennis, basketball or other sports.* 4. *Ambulance stations and associated offices and facilities.* 5. *Fire stations and associated offices and facilities.* 6. *Police stations and associated offices and facilities.* 7. *Storage facilities where equipment or vehicles are maintained, repaired or stored.* 8. *Buildings or facilities related to the treatment of water or sewage.* 9. *Parking garages.*
2.	*Municipal service board*	1. *Buildings or facilities related to the treatment of water or sewage.*
3.	*Post-secondary educational institution*	1. *Administrative offices and related facilities.* 2. *Classrooms and related facilities.* 3. *Laboratories.* 4. *Student residences that have more than three storeys or a building area of more than 600 square metres.* 5. *Student recreational facilities and athletic facilities.* 6. *Libraries.* 7. *Parking garages.*
4.	*School board*	1. *Schools.* 2. *Administrative offices and related facilities.* 3. *Parking garages.*
5.	*Public hospital*	1. *Facilities used for hospital purposes.* 2. *Administrative offices and related facilities.*

APPENDIX C – Solar PV Data

Site	Start Date	End Date	Electricty Generated(kWh)	Amount Paid($)
8 Carleton St South - Senior Centre	12-07-21	01-07-22	260	156.16
	01-08-22	02-07-22	210	125.14
	02-08-22	03-09-22	830	509.77
	03-10-22	04-06-22	900	553.19
	04-07-22	05-06-22	1,170	720.69
	05-07-22	06-07-22	1,660	1,024.67
	06-08-22	07-08-22	1,610	993.66
	07-09-22	08-09-22	1,620	999.86
	08-10-22	09-08-22	1,310	807.54
	09-09-22	10-06-22	1,080	664.86
	10-07-22	11-08-22	990	609.03
	11-09-22	12-06-22	370	224.4
			12,010	**$ 7,388.97**
	12-07-22	01-09-23	260	156.16
	01-10-23	02-06-23	240	143.75
	02-07-23	03-08-23	730	447.73
	03-09-23	04-05-23	960	590.83
	04-06-23	05-05-23	1,260	776.53
	05-06-23	06-06-23	1,790	1,105.05
	06-07-23	07-07-23	1,300	801.34
	07-08-23	08-08-23	1,490	918.94
	08-09-23	09-07-23	1,290	795.14
	09-08-23	10-05-23	1,140	702.49
	10-06-23	11-07-23	740	453.49
	11-08-23	12-05-23	370	224.81
			11,570	**$ 7,116.26**
	12-06-23	01-05-24	230	137.55
	01-06-24	02-05-24	210	125.14
	02-06-24	03-06-24	810	497.36
	03-07-24	04-05-24	910	559.4
	04-06-24	05-06-24	1,210	745.51
	05-07-24	06-05-24	1,470	906.8
	06-06-24	07-08-24	1,540	949.79
			6,380	**$ 3,921.55**
701 Allanburg Fire Station 2	12-23-21	01-25-22	310	187.17
	01-26-22	02-23-22	410	249.21
	02-24-22	03-24-22	940	578.01
	04-26-22	05-25-22	1,430	881.99
	05-26-22	06-23-22	1,460	900.6
	06-24-22	07-25-22	1,640	1,012.27
	07-26-22	08-24-22	1,450	894.4
	08-25-22	09-23-22	1,190	733.1
	09-24-22	10-25-22	1,120	689.67
	10-26-22	11-23-22	750	460.14
	11-24-22	12-21-22	380	230.6
			11,080	**6817.16**
	12-22-22	01-24-23	230	137.55
	01-25-23	02-22-23	660	404.3
	02-23-23	03-23-23	840	516.21
	03-24-23	04-24-23	1,350	832.09
	04-25-23	05-24-23	1,380	850.97
	05-25-23	06-22-23	1,450	894.64
	06-23-23	07-24-23	1,450	894.13
	07-25-23	08-23-23	1,300	801.34
	08-24-23	09-22-23	1,240	764.12
	09-23-23	10-24-23	1,030	633.57
	10-25-23	11-22-23	660	404.54
	11-23-23	12-20-23	370	224.81
			11,960	**7358.27**
	12-21-23	01-22-24	260	155.72
	01-23-24	02-14-24	400	244.26
	02-15-24	03-21-24	1,020	626.69
	03-22-24	04-22-24	1,100	677
	04-23-24	05-23-24	1,450	894.4
	05-24-24	06-21-24	1,250	770.56
			5480	**3368.63**

2189 Canaboro Rd Fire Station	11-30-21	12-30-21	380	230.6
	02-01-22	03-01-22	830	509.77
	04-30-22	05-31-22	1,600	987.45
	06-01-22	06-29-22	1,540	950.23
	06-30-22	07-29-22	1,500	925.42
	07-30-22	08-30-22	1,570	968.84
	08-31-22	09-29-22	1,080	664.86
	09-30-22	10-31-22	1,160	714.49
	11-01-22	11-29-22	700	429.12
	11-30-22	12-30-22	350	211.99
			10,710	**6592.77**
	12-31-22	01-30-23	190	112.73
	01-31-23	02-28-23	820	503.8
	03-01-23	03-29-23	930	572.04
	03-30-23	04-28-23	1,350	832.36
	04-29-23	05-30-23	1,610	993.39
	05-31-23	06-28-23	1,330	820.19
	06-29-23	08-28-23	1,430	881.99
	08-30-23	09-28-23	1,280	788.93
	09-29-23	10-30-23	950	583.94
	10-31-23	11-28-23	630	385.93
	11-29-23	12-28-23	350	211.99
			10,870	**6687.29**
	12-29-23	01-29-24	210	124.87
	01-30-24	02-27-24	350	460.38
	02-28-24	03-27-24	890	547.23
	03-28-24	04-26-24	1,110	683.47
	04-27-24	05-29-24	1,560	962.2
	05-30-24	06-27-24	1,410	869.82
			5530	**3647.97**
3540 Schmon Parkway - City Hall	06-30-22	07-29-22	0	83.15
	07-30-22	08-30-22	0	88.29
	08-31-22	09-29-22	0	93.43
	9-30-22	10-31-22	0	98.57
	11-01-22	11-29-22	0	103.71
	11-30-22	12-30-22	0	5.14
	12-31-22	01-30-23	0	5.14
	01-31-23	02-28-23	0	10.04
	03-01-23	03-29-23	0	4.9
	03-30-23	04-28-23	0	5.14
	04-29-23	05-30-23	0	5.41
	05-31-23	06-28-23	0	4.9
	06-29-23	07-28-23	0	10.04
	07-29-23	08-29-23	0	10.31
	08-30-23	09-28-23	0	5.14
	09-29-23	10-30-23	0	5.41
	10-31-23	11-28-23	0	4.9
	11-29-23	12-28-23	0	10.04
	12-29-23	01-29-24	0	0.51
	01-30-24	02-27-24	0	5.41
	02-28-24	03-27-24	0	10.31
	03-28-24	04-25-24	0	15.21
	04-26-24	05-29-24	0	20.96
	05-30-24	06-27-24	0	25.86
				631.92