



5 Year Energy Conservation & Demand Management

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1.0 Introduction

[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. The plan was approved by council on June 19, 2024.

Our updated CDM plan builds on the municipality's previous conservation and demand management efforts as outlined in past plans found here <https://www.mcdougall.ca/p/energy-management->. This updated plan also continues to build on experience gained in energy conservation and demand management over the last five years. In addition, this update supports our asset management plans, our membership in Integrated Communities Energy & Climate Action Plans (ICECAP) and our progress through the various milestones of the Partners for Climate Protection (PCP) program.

2.0 Goals and objectives for conserving energy

Our organization will strive to continuously reduce energy consumption and manage demand to reduce energy costs. We are committed to creating new partnerships and working with other broader public sector organizations to better manage energy use across our community.

Our organization energy goals include:

- Ensure effective collaboration with our community partners and communicate our energy conservation progress
- Use this plan to help our organization effectively monitor, evaluate, and measure corporate energy use

Our energy conservation and demand management objectives include:

- Enhance overall staff understanding of energy and water conservation
- Implement building envelope upgrades and energy efficiency retrofits on priority facilities to reduce our overall energy usage and costs.
- Work towards integrating this plan with our Climate Change Action Plan to align our corporate climate and energy initiatives and achieve greater outcomes.

Our targets towards achieving our goals and objectives include:

- Reduce overall energy consumption of facilities by 2.5% over five years (2025-2029) and by 5% by 2035.

Municipality of McDougall Energy Conservation and Demand Management Plan 2025-2029

3.0 Defining baseline energy consumption and savings to date

This updated plan uses 2012 energy consumption data as a baseline to track progress of our energy consumption patterns, renewable energy generation, and previous and future energy conservation measures.

Since the completion of the original plan, we reduced overall energy consumption across all organizational buildings reported on by 5%. This reduction is despite bringing on three new facilities.

4.0 Energy use and benchmark performance of operations

Annual energy reporting is required under the regulation and allows our municipality to understand how energy is used in our buildings, identify potential energy conservation opportunities, and track progress on energy conservation efforts.

We have included our organization's most recent annual energy report and have also included and considered our annual energy consumption information from the baseline year, which has helped us to report on our achievements and inform the development of new measures.

Table 1: Energy consumption and GHG emissions of municipal facilities 2012 and 2023 years

Facility Name	Address	Total Area (m ²)	Notes	Avg hrs/wk	Electricity	Fuel Oil	Propane	GHG Emissions	GHG Intensity	Electricity	Fuel Oil	Propane	GHG Emissions	GHG Intensity	Change in 2023 Emissions compared to 2012
					2012	2012	2012	2012	2012	2023	2023	2023	2023	2023	
					KWh	L	L	kg of CO2e	kg of CO2e/m ²	KWh	L	L	kg of CO2e	kg of CO2e/m ²	
Facility Primary Type: Office															
Administration Office	5 Barager Blvd	317		40	56,487	-	-	2,034	6.41	67,482	-	-	2,429	7.65	19%
Facility Type Total									2,034			2,429			
Facility Primary Type: Fire															
Ferguson Fire Hall	2 Peninsula Shores Rd	234		5	9,268	2,882	-	8,275	35.36	6,222	2,442	-	6,953	29.71	-16%
McDougall Fire Hall	10 Municipal Dr	580		40	42,618	2,330	-	7,954	13.71	46,073	1,151	4,107	11,187	19.29	41%
Facility Type Total									16,229			18,140			
Facility Primary Type: Community Centre															
McDougall Recreation Complex	148 Hammel Ave	1,764		57	56,266	-	-	2,026	1.15	40,143	-	-	1,445	0.82	-29%
Nobel Beach House	66 Big Sound Rd	600	Opened May 2014	40	n/a	n/a	n/a	0	-	1,312	-	-	47	0.08	new since 2012
Nobel Hall	145 Hammel Ave	325	Opened Apr 2023	8	n/a	n/a	n/a	0	-	18,927	-	-	681	2.10	new since 2012
Waubamik Hall	6 Hurdville Rd	384		8	6,164	2,871	-	8,133	21.18	4,807	2,271	-	6,431	16.75	-21%
Facility Type Total									10,159			8,604			
Facility Primary Type: Public Works															
Landfill Building/ Leachate Treatment	214 McDougall	207		168	193,696	-	-	6,973	33.69	216,101	-	-	7,780	37.58	12%
Landfill Shop	214 McDougall	510	Opened Jan 2024	20	n/a	n/a	n/a	0	-	607	-	1,667	2,602	5.10	new since 2012
Public Works Building	8 Municipal Dr	730		40	40,750	13,331	-	38,200	52.33	54,295	10,143	-	29,903	40.96	-22%
Water Pumping Station	1A Murray Point Ave	45		1	8,647	-	-	311	6.91	13,380	-	-	482	10.71	55%
Water Treatment Plant	8B Parkway Ave	23		1	2,283	-	-	82	3.57	4,117	-	-	148	6.43	80%
Crawford Septic Building	8 Parkway Ave	9		168	1,935	-	-	70	7.78	2,506	-	-	90	10.00	29%
Facility Type Total									45,636			41,005			
Grand Total									74,058			70,178		-5%	

5.0 Current and proposed energy conservation and demand management measures

Staff are encouraged to identify and implement new measures to promote continued savings, meet updated conservation, efficiency, and demand management targets, and ensure success of the updated Conservation and Demand Management Plan.

The Municipality of McDougall has implemented several energy reducing initiatives in the past including:

- Street light retrofits at key locations
- Addition of solar power compactors at the Landfill in partnership with Waste Diversion Ontario’s Continuous Improvement Fund
- Insulation upgrades to the Public Works building
- Lighting retrofit at the Administration building as part of Hydro One’s Save on Energy program
- Furnace replacement at the Administration building
- Heating upgrades at the McDougall Fire Hall

The following programs, processes and projects are proposed to further help with the organization’s conservation and demand management:

Description	Facility	Contact	Date	Status
Energy Awareness at Management Meetings	All facilities	Director of Corporate Services	2024-06-01	Active
Details	Add energy awareness to management meetings. This will provide a platform to discuss topics like the current costs of energy consumption, future implications of current usage, areas for improvements and ways to reduce energy use.			
Employee Participation Program	All facilities	CAO	2024-06-01	Active
Details	Invite employees from all departments of the Municipality to recommend ideas to reduce energy use in their departments.			
Energy Accounting	All facilities	CFO	2024-06-01	Active
Details	Monthly utility usage and costs should be monitored to identify trends and emphasize anomalies to better predict future usage requirements.			

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Description	Facility	Contact	Date	Status
Fire Hall Updates	Ferguson Fire Hall & McDougall Fire Hall	Fire Chief	2024-06-01	Not yet started
Details	The replacement of Fire Hall 2 (Ferguson Fire Hall) is in the five-year capital forecast. Staff will look into the possibility of combining our two fire halls into one to reduce overall energy costs. Even if the consolidation of the two facilities is not possible, any new fire building will incorporate energy efficiency materials and equipment to reduce Green House Gas emissions.			
Energy Efficiency Purchases Standards	All facilities	CFO	2024-06-01	Active
Details	All potential asset purchases will be subject to energy use evaluations to determine the energy consumption of the potential purchase. In the decision-making process, preference will be given to assets that use less kWh, less fuel and/or are Energy Star rated.			
After hours Lights	All facilities	CAO	2024-06-01	Active
Details	The Municipality will continue to implement its strategy to ensure that lighting is turned off during periods where facilities are not in use. Staff who use the facilities after hours will be advised to keep only the areas of occupation lit after hours.			
Facilities Management	All facilities	CAO / Director of Public Works	2024-06-01	Active
Details	The Municipality intends to have a comprehensive building condition assessment completed in 2024. This will help to identify whether they would benefit from re-caulking, weather stripping, additional insulation or other improvements that would reduce air leakage and enhance efficiency.			
Participation in ICECAP meetings	All facilities	Chief Financial Officer	2024-06-01	Active
Details	CFO and Council Representative will participate in regularly scheduled Integrated Community Energy and Climate Action Plans (ICECAP) Partnership meetings and bring forward new energy planning ideas and trends to Management and Council meetings.			
Facilities Management	All facilities	CAO /Director of Public Works	2024-06-01	Not yet started
Details	Heating systems at all municipal buildings will be assessed to determine if adding a heat pump would result in reducing energy consumption.			