

Staff Report 2019 – 73 Schedule C: Corporate Energy Management Plan (2014-2019) Accomplishments

Site	Energy Conservation Measure				
	2014	2015	2016	2017	2018
Town Hall	<ul style="list-style-type: none"> • Parking lot lights LED retrofit • Insulated the north-end wall • Added an additional budget line to complete energy efficiency projects • Electric vehicle charging stations installed • Continued implementation of recommended measures from 2013 recommissioning exercise 	<ul style="list-style-type: none"> • BAS installed • Initiated HVAC re-design and study • LEED feasibility study complete 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • HVAC retrofit complete • LED bulb replacement in basement hallway and reduced number of fixtures • Gradual bulb replacement with LEDs in staircase • Solar feasibility study complete • Energy audit complete • Electricity baseload assessment complete • High-efficiency domestic hot water retrofit • EV stations being added 	<ul style="list-style-type: none"> • Kitchen, cafeteria and North Stairwell LED retrofit and controls complete • Atrium window shading • Optimize cleaning schedules for energy savings • Demand Control kitchen ventilation complete • CBIZ room retrofit to LEDs with sensors • Insulated Finance staff area wall
Caledon Centre for Recreation & Wellness	<ul style="list-style-type: none"> • Completed recommissioning exercise to optimize BAS scheduling • LED retrofit of lighting in pool area • installation of Acu-Tab system for the Pool area • Added manual lighting controls • Installed new hot water tank 	<ul style="list-style-type: none"> • Corrected placement of 2 thermostats • Optimized control of HVAC system through BAS • LED retrofit in Fieldhouse area 	<ul style="list-style-type: none"> • Replaced pot lights with LED fixtures • Auditorium toilets converted to low flush • Parking lot lights and wall packs converted to LED 	<ul style="list-style-type: none"> • Energy audit completed • LED retrofit and reduced fixtures in Youth Centre, rockwall and pool waiting area • LED retrofit and de-lamping in both Squash Courts and viewing area • Replaced fluorescent lights in the changerooms with LED strip lighting 	<ul style="list-style-type: none"> • LED conversion in Customer Service area • Vapour-sealed LEDs in Pool Storage area • Gradually upgrading to LEDs in the washrooms
Albion Bolton Community Centre	<ul style="list-style-type: none"> • Parking lot lights and wallpacks retrofitted to LEDs • Installed air curtains 		<ul style="list-style-type: none"> • T12 lights retrofit to T8s in the electrical room • Energy audit complete 	<ul style="list-style-type: none"> • Ice plant controls and floating head pressure installation • Humicon replacement • Retrofit lights in the pro-shop offices, washroom and hallway to LEDs • Energy-efficient windows (child parent centre and southside of building) and door replacement complete • Level 3 electric vehicle charging station installed 	<ul style="list-style-type: none"> • Ventilation system upgrade to improve air flow
Mayfield Recreation Complex	<ul style="list-style-type: none"> • HVAC and roof upgrade in pool • Retrofitted lobby lights to T8s • Installed air curtains • New exterior LED lights • Installed Acu-Tab system for pool • Installed new water heater mixing valve in pool change room showers 	<ul style="list-style-type: none"> • Compressor control panel replacement, equipped with a VFD for better controls • ASHRAE level 2 energy audit completed in partnership with Humber College • Lighting retrofit in meeting room 	<ul style="list-style-type: none"> • Ice plant controls and floating head pressure controls installed • Energy audit completed 	<ul style="list-style-type: none"> • Installation of new pool boiler • Wall insulation and sealing of wall joints in pool area • LED retrofit and de-lamping in arena viewing area, lunch room, storage and meeting rooms • Water temperature for Zamboni reduced 	<ul style="list-style-type: none"> • LED retrofit in the Arena Changerooms and Hallway areas
Caledon East Community Complex	<ul style="list-style-type: none"> • Exterior LED lights installed 	<ul style="list-style-type: none"> • Exterior wallpack LED retrofit • Optimized ice plant operations • New condenser installed • Sub meters installed on ice plants 	<ul style="list-style-type: none"> • Energy audit completed 	<ul style="list-style-type: none"> • Lower level window replacement 	<ul style="list-style-type: none"> • Adjusted humidity levels by 10% • Purged non-condensable air out of condensers • Adjusted arena heating • CIMCO 6000E ice plant controls system installed
Lloyd Wilson Centennial Arena			<ul style="list-style-type: none"> • Humicon installed 	<ul style="list-style-type: none"> • Energy audit complete • Ice pad LED retrofit • Interior and exterior LED retrofit • Installation of new compressor room panel, brine pump and water tank • Reduced flood water temperature 	
OPP Detachment		<ul style="list-style-type: none"> • BAS installed with heat pumps tied into system 	<ul style="list-style-type: none"> • Energy audit complete • LED retrofit in changeroom 	<ul style="list-style-type: none"> • Increased controls of heat pumps through BAS optimization 	<ul style="list-style-type: none"> • Lowered temperature in hot water tank • Heat-wheel replaced on RHU • Whole facility on scheduling in BAS • Light sensors have been adjusted in some areas • Sensors installed on garage bay doors to shut off heat when open
Fire Stations (Alton, Bolton, Caledon East, Caledon Village, Cheltenham, Inglewood, Mono Mills, Palgrave, Snelgrove)	<ul style="list-style-type: none"> • Interior lighting retrofit at Caledon East and Caledon Village Fire Halls 	<ul style="list-style-type: none"> • Furnace replacement at Snelgrove Fire Hall • Interior LED retrofit at Snelgrove Fire Hall • Window replacement at Caledon East Fire Hall 	<ul style="list-style-type: none"> • Exterior LED retrofit at Caledon Village Fire Hall • Bay area LED retrofit at Cheltenham Fire Station 	<ul style="list-style-type: none"> • Mono Mills Fire Hall #308 interior LED lighting retrofit • Energy audit completed at Snelgrove Fire Hall 	<ul style="list-style-type: none"> • Cheltenham Fire Station LED retrofit in Bay and Lunchrooms • Alton Fire Station #301 LED retrofit • EcoBee thermostats installed at: Alton (#301), Caledon East (#303), Cheltenham (#304), Inglewood (#305), Palgrave (#306), Snelgrove (#307), Mono Mills (#308), Charleston (#309)

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Community Centres (Belfountain, Inglewood, Alton, Victoria Parks, and Rotary Club)	<ul style="list-style-type: none"> Installed Ecobee thermostat at Inglewood Community Centre Replacement of hot water tanks at the Rotary Club Installation of 34 efficient lighting fixtures in Rotary Club 	<ul style="list-style-type: none"> Upgraded HVAC at Inglewood Community Centre 	<ul style="list-style-type: none"> Added insulation at Belfountain Community Centre Oil furnace upgraded to propane and added air-conditioning at Belfountain Community Centre Interior LED strip lighting and new electrical panel at Inglewood Community Centre Interior LED lighting replacement at Rotary Club Parking lot and wallpack LED lighting replacement at Rotary Club 	<ul style="list-style-type: none"> Pending design and installation of new metal roof at Inglewood Community Centre Energy audit complete at Rotary Club 	<ul style="list-style-type: none">
Libraries (Margaret Dunn and Caledon Village Place)	<ul style="list-style-type: none"> Wallpacks converted to LED at Caledon Village Place Installed ecobee thermostat at Margaret Dunn Library 		<ul style="list-style-type: none"> Replaced 2 exterior lights with LEDs at Caledon Village Place Electric vehicle charging station installed at Margaret Dun Library 	<ul style="list-style-type: none"> Pending design and installation of new metal roof at Margaret Dunn Library 	<ul style="list-style-type: none">
Work Yards (Work Yard 1, 2 and 3)	<ul style="list-style-type: none"> Wallpack LED retrofit at Work Yard 1 and 2 Pole lights converted to LED at Work Yard 3 	<ul style="list-style-type: none"> LED retrofit of parking lot lights and wallpacks at Work Yard 1 and 3 	<ul style="list-style-type: none"> Obtained a quote for insulation, added natural gas and optimized furnace at Work Yard 1 Removed 2 overhead natural gas meters and added a new heater in the Bay at Work Yard 2 LED retrofit completed in the Bay at Work Yard 3 	<ul style="list-style-type: none"> LED upgrades in the equipment rooms, bathroom and chainsaw room at Work Yard 2 	<ul style="list-style-type: none"> Work Yard 1 expansion complete LED Retrofit in Garage Bay areas at Work Yard 2 Work Yard 1 water cistern installed during expansion Installed 9 Ecobee smart thermostats at Work Yard 2
6211 Fire Administration		<ul style="list-style-type: none"> BAS system installed 	<ul style="list-style-type: none"> Installed Aircosaver Thermostat optimized 	<ul style="list-style-type: none"> Optimized BAS controls for HVAC system and garage bay Outdoor incandescent lights replaced with LED Energy audit complete 	<ul style="list-style-type: none"> Sensors installed on garage door to turn heat off when doors open
Caledon Animal Shelter	<ul style="list-style-type: none"> LED wallpack conversion 	<ul style="list-style-type: none"> ASHRAE Level 1 energy audit complete 		<ul style="list-style-type: none"> Interior LED retrofit complete Energy audit complete 	<ul style="list-style-type: none"> Ecobee smart thermostat installation
Streetlights		<ul style="list-style-type: none"> Retrofitted 1500 cobrahead style streetlights to LED 		<ul style="list-style-type: none"> Retrofit additional 500 cobrahead style streetlights to LED on Regional Roads complete 	