



**CORPORATE FACILITIES DEPARTMENT
MEMORANDUM**

TO: MAYOR J. LEHMAN AND MEMBERS OF GENERAL COMMITTEE

FROM: A. MCMULLIN, MANAGER OF ENERGY MANAGEMENT

NOTED: R. PEWS, P.ENG, DIRECTOR OF CORPORATE FACILITIES

D. MCALPINE, GENERAL MANAGER OF COMMUNITY AND CORPORATE SERVICES

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: MAYOR'S MEGAWATT CHALLENGE PROGRAM

DATE: NOVEMBER 26, 2018

The purpose of this Memorandum is to inform members of Council of an award received by the City of Barrie from the Mayor's Megawatt Challenge (MMC) Program on November 7th 2018, for energy savings achieved at City Hall.

The City of Barrie is an active participant in the program - administered by the Toronto and Region Conservation Authority - which brings together leading municipalities to achieve exceptional energy performance in municipal facilities. The award is granted to facilities that reduce energy consumption by 10% compared to the previous year. City Hall exceed this threshold by achieving an energy reduction of 16% in 2017, compared to 2016.

These results were largely driven by the efficiencies realized from the recently replaced heating, ventilation and air conditioning (HVAC) system. The Facility Planning and Development Branch led the capital renewal project and chose to implement an innovative technical solution - a variable refrigerant flow (VRF) system. This HVAC system allows for the simultaneous transfer of heating and cooling energy within a floor to serve the dynamic comfort needs of a larger tower building office environment, while minimizing energy usage.

Additionally, the Energy Management Branch completed a lighting retrofit within City Hall converting all of the fluorescent lighting to LED technology. In total, 2,214 fluorescent tubes were retrofitted reducing electricity demand by 34 kW and consumption by 102,739 kWh annually. Operationally, the continual efforts by the Facility Operations Branch to optimize the building systems, though improved scheduling and equipment control enhancements, has further improved the building's energy performance.

Energy savings are never achieved in a vacuum; it requires a collaborative effort. The MMC award is a result of the effort of the three branches within the Corporate Facilities Department working to achieve significant energy, cost and greenhouse gas emission reductions at City Hall.