



HUMBER
Office of Sustainability



**ENERGY
MASTERPLAN**



2018-2019

IEMP ANNUAL PROGRESS REPORT

PURPOSE

In an effort to limit the impacts of climate change, [Humber's Integrated Energy Master Plan](#) (IEMP) was developed to meet significant water, energy efficiency and greenhouse gas reduction goals by 2034.

GOALS



Reduce energy use per square foot by
50%



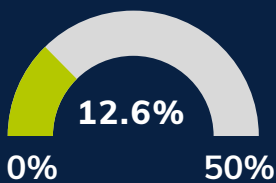
Reduce **absolute** greenhouse gas emissions by
30%



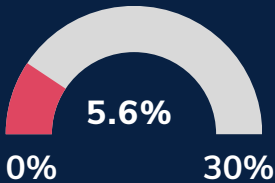
Reduce water use per student by
50%

PROGRESS

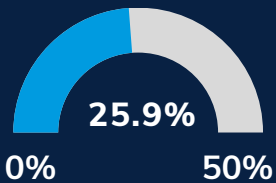
Energy



GHG



Water



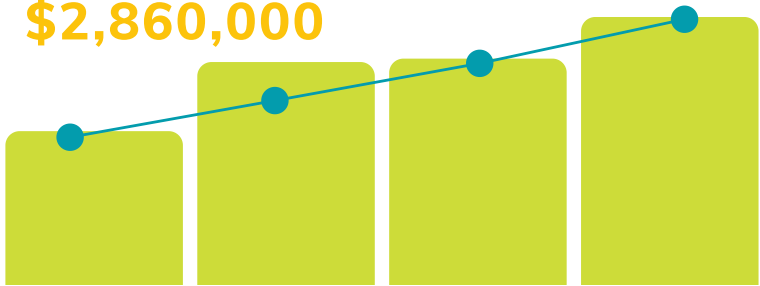
FINANCIAL SAVINGS



This year, Humber College saved
\$880,000
in utility costs

Since 2015 Humber College has saved over

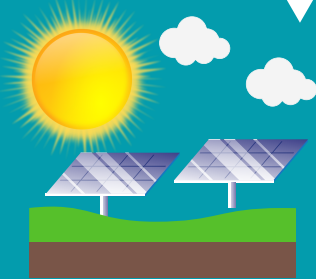
\$2,860,000



RENEWABLES

140,000 kWh

Solar Generation this year



This is equivalent to the electricity used by **12** homes



NOTABLE PROJECTS

Barrett Centre for Technology Innovation

The new construction is the first Net Zero Energy Building for Humber College and is also LEED Platinum certified. The building design features a high-performance envelope, green roofs, passive cooling natural ventilation systems, and high-performance energy recovery ventilation.



North & Lakeshore Campus Water Efficiency Project

Replaced and adjusted existing plumbing fixtures to low flow to reduce water consumption. This includes upgrading toilets, urinals, faucets, and showers.



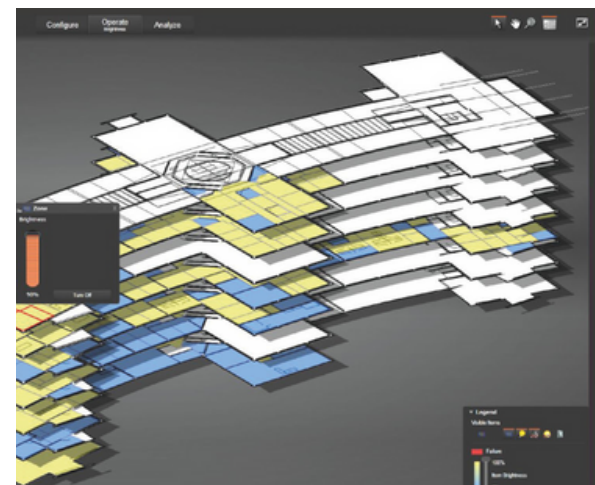
North Campus Voltage Harmonizers

The installation of Voltage Harmonizers allowed for optimal voltage supply to buildings to reduce consumption while continuing to meet power requirements.



North and Lakeshore Campus Lighting Retrofit

A comprehensive lighting retrofit to replace a significant portion of interior lighting with LED. The project also included an advanced lighting management system providing centralized smart lighting controls across both campuses. The system monitors occupancy sensors and shuts off areas when they are not occupied. It also allows for the dimming of areas with sufficient daylight.



Other Notable Projects

BAS System Upgrade, Retro-commissioning of LRC building

ACADEMIC ENGAGEMENT

Encelium Learning Sandbox

Humber's Sustainable Energy and Building Technology (SEBT) Program incorporated the Encelium Lighting Control System into their curriculum. The innovative learning sandbox let's students learn how to control, commission, and audit lighting systems as part of their studies. This hands-on approach not only gives students the practical experience and skill of working with lighting controls but an appreciation for advanced control strategies for aggressively driving down energy use.

