



2023-2024

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%

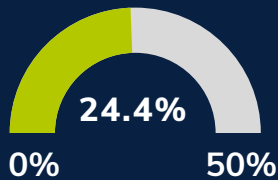


Reduce water use per student by

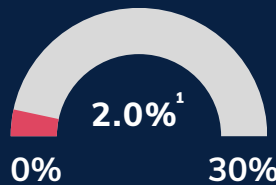
50%

PROGRESS

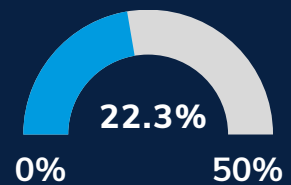
Energy



GHG



Water



FINANCIAL SAVINGS



This year, Humber College saved

\$2,780,000

in utility costs

Since 2015 Humber College has saved over

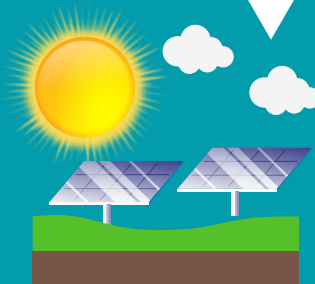
\$11,400,000



RENEWABLES

1,410,000 kWh

Solar Generation this Year



This is equivalent to the electricity used by **115** homes



NOTABLE PROJECTS

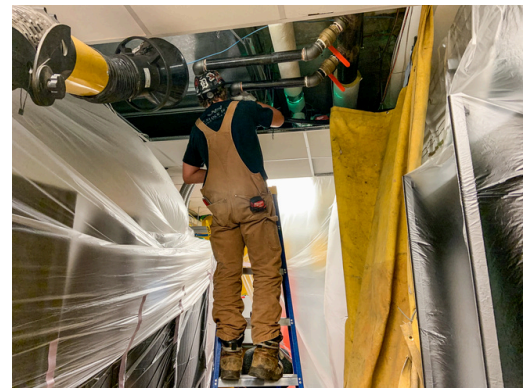
SWITCH Phase 1 Construction

Project SWITCH continued construction and included multiple major milestones including installation of hot water boilers and extending hot water distribution network to the Guelph-Humber and CTI buildings.



F AHU Sequence Optimization

Completion of North F AHU sequence conversion to ASHRAE Guideline 36 which provides advanced control strategies for maximizing energy efficiency and performance.



LRC VAV Minimum Air Flows

Successfully implemented optimized minimum air flow rate settings for VAV boxes in LRC, reducing energy consumption and increasing occupant comfort while maintaining indoor air quality. Configured settings for over 160 VAV boxes.



BAS Trending Project

Completed data trending of 40,000+ Building Automation System points which will be used as input data to allow for equipment optimization and fault detection / diagnostics system (SkySpark)



ACADEMIC ENGAGEMENT

SWITCH Academic Symposium

In conjunction with Ecosystem, held an energy symposium on District Energy Retrofits to Achieve Zero Carbon bringing together students, academics, and industry experts to share their insights and experiences on innovative district energy systems and waste heat recovery applications. The event featured panel discussions on topics such as lowering supply temperatures, waste heat recovery, and emerging technologies. This symposium not only provided valuable knowledge for students but also fostered networking opportunities among like-minded individuals dedicated to sustainability.

FAST and Ecosystem SWITCH Tour

Students from the Faculty of Applied Science and Technology (FAST) were provided a tour displaying progress for Phase 1 construction of Project SWITCH by the contractor team. This tour aimed to provide the students with a real-world perspective on the complexities and challenges involved in large-scale decarbonization projects.

