



**HUMBER**  
Office of Sustainability



**HUMBER**

**2022-2023**

**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%

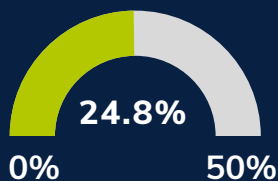


Reduce water use per student by

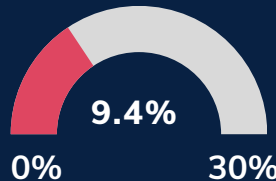
50%

## PROGRESS

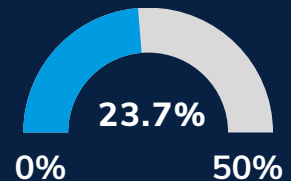
Energy



GHG



Water



## FINANCIAL SAVINGS



This year, Humber College saved

**\$2,280,000**

in utility costs

Since 2015 Humber College has saved over

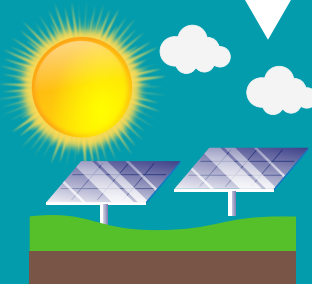
**\$8,600,000**



## RENEWABLES

**1,286,000 kWh**

Solar Generation this Year



This is equivalent to the electricity used by **105** homes



# NOTABLE PROJECTS

## 110 CAR Envelope Retrofit

The 110 Carrier Drive facility houses the centre for Skilled Trades and Technology. Originally built in the 1970s, this building had its exterior overcladded - adding insulation to exterior walls and upgrading windows to triple glazing. This 100,000 sq.ft building now uses 20% less energy than before.



## B,E,F,H Solar Panels

A total capacity of 410 kW-solar PV was installed to serve the B, E, F, and H Buildings at the North campus. This set of arrays offsets the equivalent energy usage of 35 homes.



## SWITCH Phase 1 Construction Start

Project SWITCH includes the conversion of the North campus's heating system from Steam to Hot Water and installation of a district energy plant that will allow for significant heat recovery. This project will reduce natural gas use at the North campus by 70% and lead to a 30% reduction in Humber's GHG emissions.



## Other Notable Projects

- F AHU Guideline 36 Sequences Implementation
- LRC LED Relamping
- FX AHU Replacement
- Lakeshore Chiller Optimization

# ACADEMIC ENGAGEMENT

## Project SWITCH Co-Op Placements

Students from the Sustainable Energy and Building Technology (SEBT) program were hired by the design-build contractor, Ecosystem Energy. The students had the unique opportunity to work on Project SWITCH as part of their internship. As Controls Specialist Interns, these students conducted a comprehensive controls audit, analyzed the BAS, and provided crucial data for HVAC design decisions. This hands-on experience deepened their technical skills and illuminated the practical application of sustainability principles in a real-world context.

## FAST Global Summer School

Humber's Faculty of Applied Science and Technology's Global Summer School course, Optimizing High Performance Building Design, hosted students for a tour of the NX retrofit project. Students from several countries got to learn about the unique characteristics and challenges from the the deep energy retrofit.

