

# **PURPOSE**

In an effort to limit the impacts of climate change, <u>Humber's Integrated Energy Master Plan</u> (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

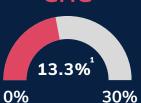
50%

## **PROGRESS**

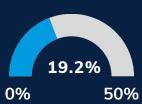




**GHG** 



Water



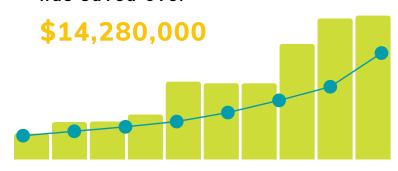
## **FINANCIAL SAVINGS**



This year, Humber College saved

\$2,800,000 in utility costs

Since 2015 Humber College has saved over



### **RENEWABLES**

1,455,000 k W h

Solar Generation this Year



This is equivalent to the electricity used by 118 homes



# **NOTABLE PROJECTS**

#### **Humber Cultural Hub Opening**

Phase 1 of the Humber Cultural Hub opened at the Lakeshore campus. This building is Zero Carbon Building-Design Standard certified and targeting LEED Platinum. Key sustainability design features include:

- Full electrification eliminating on-site GHG emissions
- Geothermal Heating & Cooling
- Solar generation representing 10% of building annual energy consumption



#### **Project SWITCH Phase 2 Construction**

<u>Project SWITCH</u> continued construction of Phase 2. Several major milestones were achieved, including the elimination of all steam heating and conversion to hot water distribution at the north campus and installation and startup of the new low carbon heating systems in the central plant - these include a 2MW Electric Boiler and several heat pumps.



# North and Lakeshore VAV Minimum Air Flow Optimization

Optimized and implemented minimum airflow rate settings for over 70 VAV boxes across multiple buildings, including GH, H, and LX at North Campus, and F, G, H, and L at Lakeshore Campus. These adjustments reduced energy consumption, improved occupant comfort, and maintained indoor air quality.



#### Net Zero 2029 announcement

Humber is set to be one of Canada's first intitutions to reach net-zero carbon by 2029. Through its Climate Action Plan, the college is shifting from natural gas to efficient electric heating, embedding sustainability into academic programs, and giving students hands-on experience with real-world projects. Humber's commitment prepares graduates for the green economy, and shares solutions to inspire broader climate action.

Net Zero **2029** 

## ACADEMIC ENGAGEMENT

#### Sustainable Energy and Building Technology Capstone Project

Humber's Energy Team supported students from the Sustainable Energy and Building Technology course (SNRF 315) capstone projects by presenting three buildings at the Lakeshore campus for the students to perform energy audits. Students were taken on a tour of buildings and received drawings and metering data to perform their energy audits and come up with energy saving recommendations.

#### **Humber partnership with Ontario Tech University**

Humber Polytechnic and Ontario Tech University announced a new partnership to support the development of Canada's nuclear workforce. The collaboration brings together Ontario Tech's specialized nuclear engineering programs with Humber's expertise in training, applied research, and clean energy education. By working with other post-secondary institutions across the country, the two schools aim to address the growing demand for skilled talent to support Canada's nuclear sector. The initiative is positioned to help build the workforce needed for major nuclear projects while reinforcing Canada's role as a leader in clean, reliable energy.

#### Faculty of Applied Sciences and Technology (FAST) Global Summer School Tour

Humber FAST's Global Summer School course, Optimizing High Performance Building Design, hosted students from around the world for a tour of the NX retrofit and SWITCH projects.



