



January 26, 2023

Humber Institute of Technology & Advanced Learning
205 Humber College Boulevard
Toronto, Ontario, Canada M9W 5L7

RE: Third-Party Verification for Humber College's GHG inventory

INTRODUCTION:

GreenerU Inc. is happy and excited to share this memo regarding the verification of Humber College's Greenhouse Gas Inventory and Calculator Tool (2021 - 2022). The project scope included reviewing the data entered in the calculator tool in alignment with Humber's methodology document and providing recommendations to align with best practices.

METHODOLOGY:

Using Humber College's Greenhouse Gas Inventory Calculator Tool and Methodology Overview, GreenerU checked the calculations for consistencies, general accuracy, and alignment with industry standards. The following were checked:

- Methodologies, and the identification of any divergence from the GHG emission calculation
- Methodology outlined in Humber's methodology document
- Referenced values (e.g., emission factors and conversion factors)
- Assumptions inherent to the calculations such as square footage
- Documentation of assumptions or explanations
- Potential for calculation errors

FINDINGS & RECOMMENDATIONS:

Overall, the GHG inventory report and methodology file document the assumptions that were used and provide explanations of the calculations performed. No calculation errors were detected and the methodologies used for the calculations are appropriate.

When calculating scope 1 and 2 emissions, Humber used emission factors for natural gas and electricity from Canada's latest National Inventory Report (NIR). For each of the scope 3 categories,



Humber provided sources for each emission factor and accurately calculated those greenhouse gas emissions.

While Humber College does not currently track refrigerants, Humber could follow the United States Environmental Protection Agency's (EPA's) screen method for refrigerants to further improve its inventory. Humber must create an inventory of refrigerant equipment and determine installation, operating, and disposal emissions to calculate total refrigerant emissions.

To calculate employee and student commuting, Humber utilized The Greenhouse Gas Protocol's distance-based method. Surveying students, staff, and faculty on commuting behaviors, vehicle type, commuting frequency, and average distance traveled to improve the accuracy of Humber's commuting data. Additionally, Humber can improve its vehicle fleet fuel use accuracy by using receipts and purchase invoices to accurately calculate fuel consumption and corresponding emissions.

CLOSING:

This memo was prepared for Humber College's use. This memo was prepared for Humber by Daniela Miranda, Project Coordinator and Chris Lewis, Vice President of Engineering . We appreciate the opportunity to support Humber's work. If you have any questions, please do not hesitate to contact GreenerU.

Regards,

Daniela Miranda

Daniela Miranda
Project Coordinator
daniela.m@greeneru.com

Chris Lewis

Chris Lewis
Vice President of Engineering
chris.l@greeneru.com