

Residential Sustainability Standard

FOR RESIDENTIAL BUILDINGS



UNIVERSITY OF
TORONTO

Real Estate Partnerships
Spaces & Experiences

**U OF T
SPACES &
EXPERIENCES**

The University of Toronto is committed to advancing sustainability in all aspects of its operations, including the planning, design, and construction of its residential buildings. Adherence to the University's sustainability standards is a fundamental aspect of our residential projects, ensuring alignment with U of T's environmental goals and broader sustainability initiatives. These standards prioritize energy efficiency, the use of sustainable materials, water conservation, waste reduction, and the integration of green technologies. Given the University's focus on achieving a climate positive St. George campus by 2050, the following sustainability standards are being targeted for all new residential development.

- All Toronto Green Standards (TGS) Version 5 Tier 1 requirements will be met, with the exception of the Greenhouse Gas Intensity (GHGI) target;
- The GHGI target of 4 kgCO₂e per gross square meter will be met; and,
- All models will use an Emissions Factor (EF) of 50 g/kWh for grid electricity.

Air Leakage

The maximum required whole-building air leakage rate for new construction projects is 0.25 CFM75/sqft as per the U.S. Army Corps of Engineers Air Leakage Test Protocol for Building Envelopes, version 3 (May 11, 2012).

Embodied Carbon

The projects will be required to report the embodied emissions of the building's structural and envelope materials using life-cycle assessment (LCA) software in compliance with the Canadian Green Building Council's recommended methodology (CAGBC Zero Carbon Building Standard, May 2017).

The design team is required to comply with TGS v4 GHG 2.1 Low Embodied Emissions Materials and demonstrate an emission intensity equal to or less than 350 kgCO₂e/m² for the Upfront Carbon lifecycle stage (A1-A5) based on the CaGBC Zero Carbon Building Standard methodology.

Water

Indoor and outdoor water consumption performance targets have been set as follows:

- A minimum indoor water use reduction of 50% below the LEED® version 4 baseline consumption, and
- A minimum outdoor water use reduction of 60% below the LEED® version 4 baseline consumption.

LEED®

The University requires that all new buildings and major renovations shadow LEED®™ Silver compliance as a minimum using the most recent version of LEED. The Project Consultant shall prepare a LEED®™ Scorecard illustrating that if the project were to pursue certification it would collect sufficient points to meet LEED®™ Silver (50-59 points).

Maximizing points in the following categories shall be pursued:

- Energy & Atmosphere
 - o Optimize Energy Performance
 - o Enhanced Commissioning
 - o Advanced Energy Metering
 - o Enhanced Refrigerant Management
- Materials and Resources
 - o Building Life-Cycle Impact Reduction
 - o Construction and Demolition Waste Management

Post Occupancy Evaluation

If the actual energy performance, after 12 months of continuous operation, exceeds the predicted performance by more than 15% based on the updated post-occupancy as-built energy model, the design team and energy modelers will assist the University to determine the possible reasons for the variation and provide recommendations on how to reduce the performance gap to an acceptable level less than 15%.

Refer to the University of Toronto Sustainability Standard Technical Guide for Residential Student Buildings for more details.

