

Abstract

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Understanding tenants' behavioural energy consumption in a multi-unit residential building in Downtown Toronto, Canada.

Toronto's population of Multi-Unit Residential Buildings (MURBs) are responsible for emitting over 2.6M tonnes of eCO₂ annually. While most research on MURBs aims to understand the relationship between physical building characteristics and energy consumption, little attention is given to the impact of tenants' behaviours on energy consumption. The aim of this pilot study is to ascertain energy behaviours that have the most significant impact on energy consumption in a Toronto MURB where tenants do not pay their own bills. Of all behaviours investigated, average hours spent at home, hours TV, oven and microwave are used per day were found to have a significant impact. While results are not generalizable, a similar methodology may be applied to the wider population of Toronto MURBs, and may be used to inform tailored tenant engagement programs to encourage more environmentally-friendly behaviours.