



## **RAISING THE BAR**

### ***Updating the Energy Efficiency requirements in Toronto's Green Standard for New Construction***

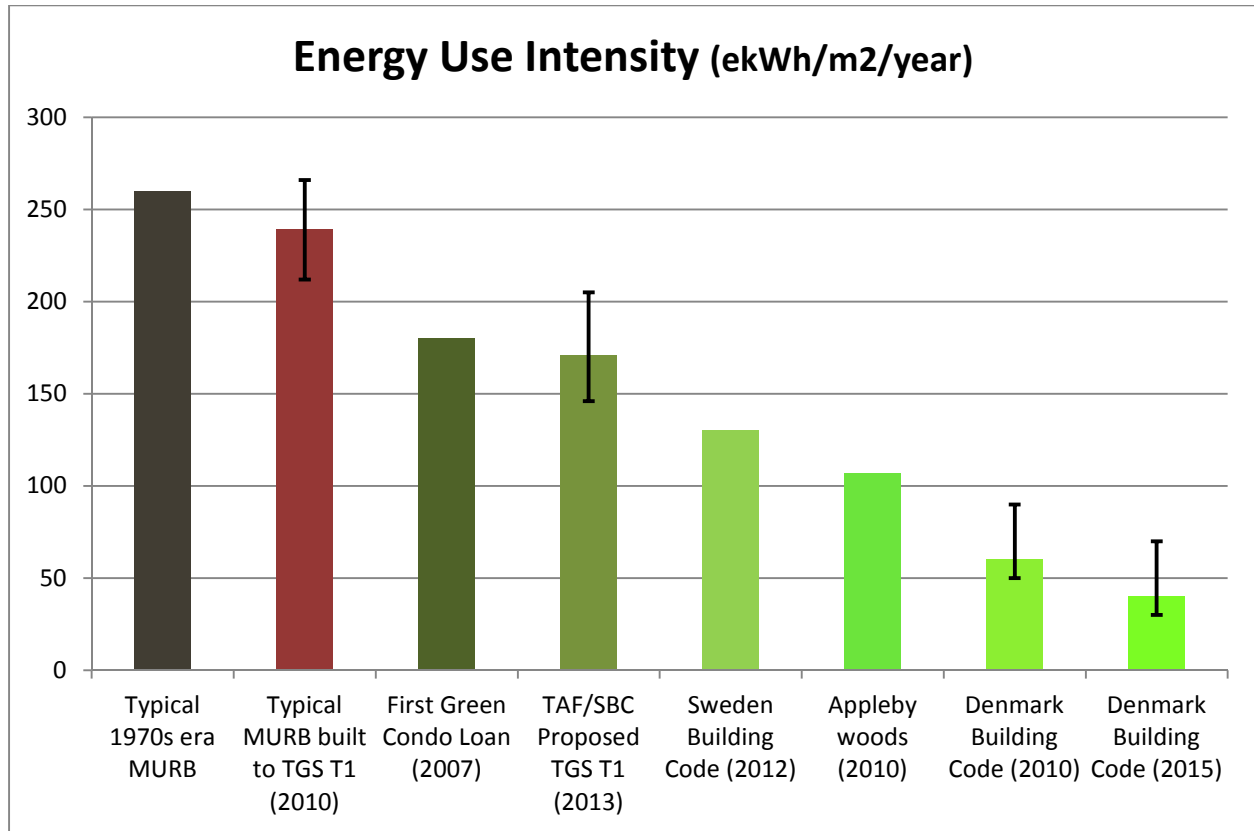
#### **SUMMARY**

The Toronto Green Standard (TGS) was created as a voluntary standard in 2006 to encourage greater energy and environmental standards for new construction projects. In 2010, the City of Toronto took a leadership position by making the TGS mandatory for all new buildings. As a result of Toronto's leadership, Toronto's new home-owners and building operators are saving an estimated \$20M annually on energy bills, and have reduced climate damaging GHG emissions by approximately 180,000 tonnes eCO<sub>2</sub> per year. In 2012, the Ontario Building Code adopted Toronto's energy standards province-wide.

The TGS is scheduled for an update in 2013. A study undertaken for City of Toronto Planning Division, sponsored by TAF, found that higher energy efficiency standards are possible at very modest incremental cost to developers, using off-the-shelf technologies and standard design practices. The study recommended a 15% increase to the minimum energy performance standard. TAF supports the study findings and recommends that the TGS energy requirements be raised by 15% effective January 2014, saving Torontonians an additional \$10M in annual energy costs and further reducing GHG emissions by 75,000 tonnes/year.

#### **BUILDING ON TORONTO'S GREEN LEADERSHIP**

Recent research undertaken for TAF by the University of Toronto Sustainable Buildings Group indicates that the energy efficiency of new Multi-Unit Residential Buildings (MURBs) peaked in the 1970's, following the oil crisis, and actually declined steadily through the 1980's until the early 2000's. As a result of the Toronto Green Standard, new MURBs built to the minimum requirements today are finally outperforming buildings built in the 1970s. However, leading developers in Toronto, as well as leading building codes internationally, have demonstrated that much deeper improvements are possible. The chart below illustrates the performance of buildings built to Toronto's minimum standards (based on 12 projects approved between 2010-12), in comparison to a variety of local and international benchmarks.



**Notes:**

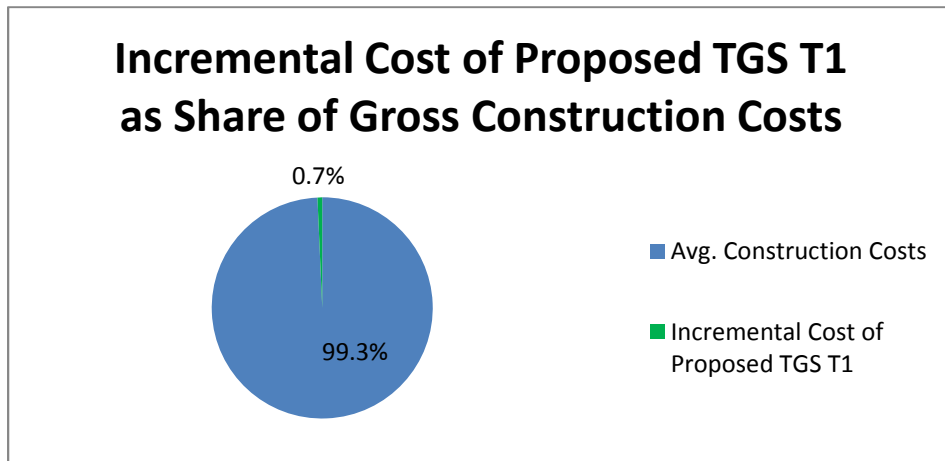
Typical 1970's MURB based *Meta-Analysis of Energy Consumption Multi-Unit Residential Buildings in the Greater Toronto Area*, University of Toronto, 2012.

Typical MURB built to TGS T1 based on average of 12 MURB energy models submitted to the City of Toronto between 2010-12.

Appleby Woods is a GTA Condo completed in 2010, full case study available at [www.towerwise.ca/files/applebywoods.pdf](http://www.towerwise.ca/files/applebywoods.pdf)

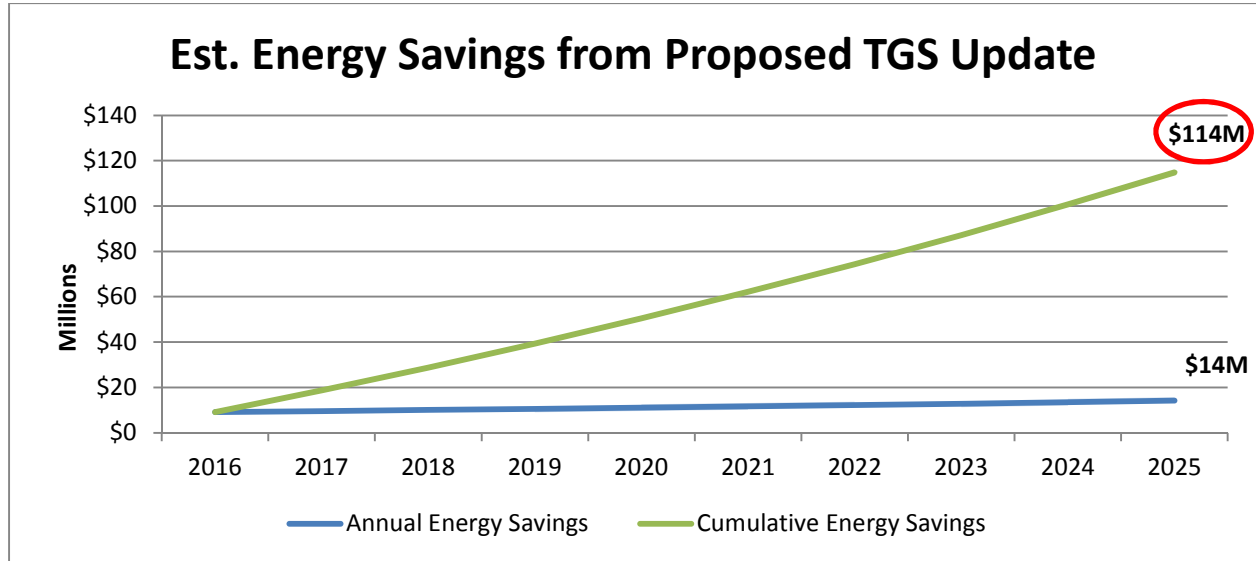
### INCREMENTAL COSTS

The estimated incremental cost of meeting the proposed new TGS energy standard is modest (<1%), and is unlikely to have a significant impact on the pace of development in Toronto. Furthermore, the study found that the incremental cost was likely to fall rapidly as the industry adapts to the new requirements.



## ECONOMIC BENEFITS

Despite modest incremental costs to developers, the proposed standards are projected to generate over \$114M in cumulative energy savings for Toronto homeowners and building operators by 2025.



These energy savings also provide local economic stimulus and support local employment. An estimated 80% of dollars spent on energy leave the City of Toronto, draining billions of dollars from the City's economy every year. Most of the dollars saved on energy due to higher standards are expected to be spent on local goods and services, supporting local businesses and local jobs.

Enhanced energy efficiency standards will also lead to improved housing affordability. All new residential units built to the proposed standards would qualify for the *Green Home Mortgage Insurance Rebate* offered by the Canada Mortgage and Housing Corporation, valued at \$500-1000 per home. This has the potential to save low-and-middle income home buyers up to an additional \$10M by 2025.

## ENVIRONMENTAL BENEFITS

Energy-use in homes and buildings accounts for over 50% of Toronto's GHG emissions. In order to achieve Toronto's 2020 target of reducing GHG emissions to 30% below 1990 levels, energy-use in Toronto's existing buildings needs to be reduced by another 15% — without accounting for growth. It is therefore critically important that new buildings are built to a high standard of energy efficiency. It is estimated that the proposed TGS energy standards would reduce emissions by a cumulative total of 757,000 tonnes eCO<sub>2</sub> by 2025.

## **SPEAK UP FOR ENERGY EFFICIENCY**

The Planning Division is preparing a staff report with recommendations on updating the Toronto Green Standard, which is expected to be discussed at the City of Toronto Planning and Growth Management Committee at its June 20<sup>th</sup> meeting.

### **Stakeholder input should be directed to:**

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