Compliance with the Toronto Green Standard: Why Keeping Score of Sustainable Performance Targets is so Important, and so Hard

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Background

- Managing carbon reductions across a massive building stock is one of the City of Toronto's biggest challenges in meeting targets in line with its Climate Action Strategy
- The City's 2030 near-zero emissions target for new buildings is addressed through the Toronto Green Standard (TGS), which requires public and private developers to comply with sustainable design measures in order to gain planning approval prior to construction
- The TGS has been met with a lot of scrutiny by industry stakeholders in terms of how the targets for new construction will be met
- Despite it being a mandatory standard with ambitious targets for new building developments, there are persistent barriers to taking full advantage of its potential
- Multiple reports have been released, analyzing the TGS to address its limitations considering the fast-approaching 2030 deadline
- The City of Toronto does not evaluate whether TGS requirements produce the intended performance targets for newly constructed buildings because of its limited jurisdictional authority

Research Questions

- What type of mechanism can be used to ensure that TGS requirements are met?
- How can TGS performance measures be tracked over time to ensure building compliance?
- Can penalties for non-compliance and other forms of enforcement be applied to the TGS?
- Does the City of Toronto have the capacity to enforce these measures?

Methodology

- A literature review and semi-structured interviews are used to analyze the TGS and its limitations
- The literature review provides background on existing green building practices and further context on the TGS
- The interviews challenge the findings in the literature and allow for a greater understanding of the TGS through Toronto City staff and building industry experts perspectives

Results

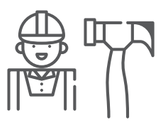
- The TGS tiered approach allows for predictability and signals where the City is trying to go
- The City's role as gatekeeper at site planning approval (SPA) ensures that TGS requirements are incorporated in the project designs
- The prescriptive nature of the TGS poses a challenge for developers because requirements can be difficult to apply on a site-by-site basis depending on the building area type
- Developers are reluctant to comply with TGS Tier 2 or above due to the financial risks involved
- Whether the project team complies with minimum TGS requirements once SPA is submitted remains unknown
- The inconsistencies between the TGS and the Building Code requirements affect the building's overall energy performance

Discussion

- Tying the TGS checklist and energy model to site planning approval (SPA) has proven to be an effective way to ensure that project designs align with TGS Tier 1; however, the absence of monitoring and enforcement mechanisms post-SPA poses an issue
- The misalignment between the Building Code and the TGS renders it difficult to ensure that TGS targets are being met throughout the building development process. There needs to be more commitment between different government bodies that implement the Building Code to reinforce the TGS
- Most projects choose to comply with TGS Tier 1 as opposed to the more stringent voluntary tiers

Recommendations

- Collect data from existing building operations and provincially mandated regulatory requirements as a first step to reduce the gap between actual and expected TGS results
- Devote city resources and expertise to ensure that the TGS energy model is compared with the Ontario Building Code energy model before approving the building permit to ensure continuity of TGS requirements
- Provide training to help reach specific TGS requirements, such as stormwater management and TEDI metrics given how stringent they are becoming over time
- The provincial government to develop open data engagement plans and notify stakeholder groups when the data is published and how they can access the datasets



Mowat, D., Rafi, S. (2020). COVID-19: Impacts and Opportunities. Retrieved 27 October, from https://www.toronto.ca/wp-content/uploads/2020/09/9133-torr covid19-impacts-opportunities-2020.pdf ; Foppiano, D., & Khan, M. (2020). Achieving TransformTO's Home and Building Goals: An Analysis of Best Building Performance Practices from Global Leading Cities. Report prepared for ClimateACT Committee, University of Toronto. Retrieved 27 October 2020.; City of Toronto. (2020b). TransformTO and Net Zero Strategy Overview. Retrieved 27 October 2020, from https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/transformto/transformto-climate-action-strategy/