

# ***EXPLORING THE VALUE OF TENANT ENGAGEMENT FOR ENERGY CONSERVATION: UNDERSTANDING OWNER AND MANAGER PERSPECTIVES FOR IMPLEMENTING TENANT ENGAGEMENT PROGRAMS IN MULTI-USE RESIDENTIAL BUILDINGS IN TORONTO***

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## **Overview**

Buildings account for a large portion of primary energy consumption in developed countries. In Canada, buildings are responsible for 12% of total GHG emissions (Greenhouse gas emissions by economic sectors, 2015). Currently, there are approximately 1200 high-rise apartment building in Toronto (City of Toronto, 2015). These buildings display signs of disrepair and negligence and are typically large consumers of energy. While traditionally the benefits of a deep physical retrofit is well understood as a business case and return on investment, there is a major gap in understanding practices that support tenant engagement and then devising tenant engagement strategies as an important additional opportunity to promote energy conservation, efficiency and cost savings in residential buildings (Mildenberger *et al.*, 2012). This project identifies and reviews the literature and successful case studies for tenant engagement strategies from around the world and attempts to understand the benefits of tenant engagement in reducing energy consumption. The major research questions analysed are:

- What is the value proposition for tenant engagement programs in energy conservation?
- What are the perspectives and interests of building owners and managers around tenant engagement?
- What are the major barriers to tenant engagement in high rise buildings for energy conservation?
- What best practices are required for successful tenant engagement for energy conservation in ageing high-rise buildings in Toronto?

## **Methods**

The research was conducted in 3 steps:

1. An in-depth literature review was conducted to identify the current understanding of, and theories on, tenant engagement, associated benefits and energy savings. Case studies were identified and studied and were useful in categorising best practices based on their effectiveness at energy conservation. The literature review was also instrumental in the creation of the survey and interview questions.
2. Surveys and interviews were conducted with major stakeholders such as building owners, property managers, tenant organizations and utility companies to identify barriers to implementation of the best practices identified through the literature review. The interviews were especially useful in understanding the perspective of building owners and managers towards tenant engagement programs.
3. The research data gathered was analysed using quantitative and qualitative methods.

## **Results**

Tenant engagement programs can lead to energy savings and consumption behaviour modification. Along with energy conservation certain other benefits such as increased tenant satisfaction, reduction in vacancies, and improvement in services were also identified. It was observed from the literature that tenant engagement leads to higher energy conservation when done in conjugation with retrofits. The different engagement strategies were categorised into low, medium and high levels of engagement, further explained in Figure 1. It was identified that as levels of engagement increase, the increase in energy conservation is not linear and the increase in benefits plateau after a certain level. Literature and case studies suggest that a low level of engagement with minimal costs can lead to energy conservation. Such strategies would include posters and prompts, as forgetfulness and laziness are frequently listed as barriers by tenants to energy conservation (Stokes *et al.*, 2012).

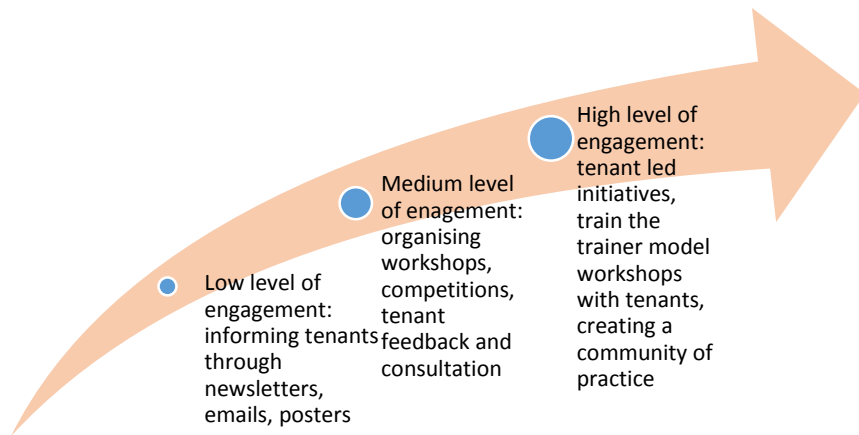


Figure 1 Levels of Tenant Engagement

The surveys and interviews conducted with stakeholders were extremely useful in understanding their perspectives and interests regarding tenant engagement. Most participants expressed interest in starting some form of tenant engagement in their buildings and wanted to do so as a part of their CSR initiatives and also to create a better community for tenants. While building owners and management were interested in starting tenant engagement programs, they listed many barriers to implementation. Some of the biggest barriers to adopting tenant engagement programs include: lack of proven benefits, lack of staff and resources, space constrains and language barrier. Importance of staff training was also emphasised during the interviews. Some suggestions for overcoming the barriers include partnering with local community centres to leverage their space for workshops and tenant meetings. The BC Livegreen project has come up with a creative method of removing the language barrier by creating a mascot which is portrayed doing actions on their posters and prompts, such as turning lights and taps off etc.

#### Best practices identified from case studies:

- Creating a communication strategy which aims to regularly interact with tenants
- Training staff and personnel
- Collaborating with local community organisations and centres to utilise community spaces for workshops
- Communicating with tenants, regarding goals and celebrating achievements
- Creating a community of practice

#### Research Challenges:

- Lack of evaluated studies on tenant engagement practices and energy conservation
- Lack of data around costs of projects
- Multiple variables might impact energy usage creating uncertainty

#### Conclusions

This research has sought to explore the benefits of tenant engagement for building management/owners, the different strategies they are interested in pursuing and best practices for tenant engagement in ageing high rise buildings. It was realised that the low level of engagement strategies involving information campaigns is a great way to initiate tenant engagement in high rise buildings, and is also most preferred by building owners and managers due to low costs and time involved. Slowly moving to the more involved methods, as conservation goals are met and benefits realised, is an ideal approach to inculcating higher levels of engagement and tenant involvement in realising the ultimate goal of creating sustainable, healthy communities.

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