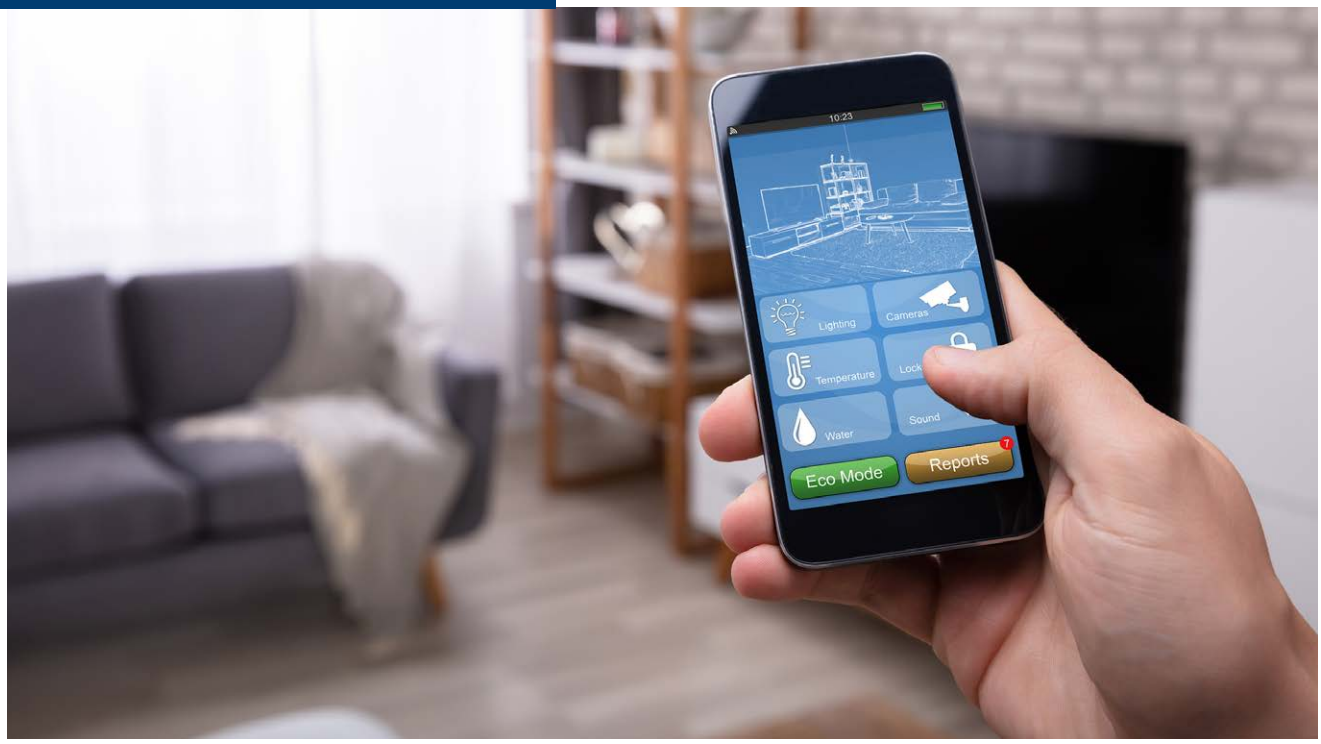


# Demand for a Greener Tomorrow

## Invites Condo Managers to Invest in Efficient Smart Tech

**By Brad Pilgrim**

Condominium managers are like business owners. A business owner's task list never ends, and new to-dos are always adding up: making sure residents are happy and comfortable, balancing budgets, overseeing building operations, adhering to maintenance and equipment upgrades, and the list goes on.


*Brad Pilgrim*

Another line item on that to-do list is ensuring condominium properties are up to snuff on environmental standards. As climate changes, a building's wellness and control become increasingly top-of-mind for managers, and multi-residential buildings (condos, especially) offer an untapped opportunity to become a sustainability leader.

Buildings make up 40 percent of all carbon emissions globally.[1] And buildings in Canada make up 11 percent of the country's greenhouse gas (GHG) emissions.

In fact, since lockdown restrictions were put in place at the beginning of 2020, and with more people living and working at home 24/7, residential carbon emissions increased by five percent globally.[2] Although it's a small increase, it demonstrates buildings' critical role in dampening our collective GHG.

### Getting Started

So, where do condo managers even begin to start on this task? Thankfully, there are readily available, eco-friendly technological solutions promising benefits like improved energy efficiency, longer equipment lifespan, enhanced operations flow, energy cost savings and better tenant health and comfort.

The first step starts with assessing and retrofitting a condo's mechanical rooms to be more resilient and energy-efficient. Targeting machinery and existing equipment is easy because it's accessible, scalable and easy to modify.

Internal operational systems were designed to run at full capacity – 24/7. It's excessive and unnecessary considering the challenges we face today in many industries regarding energy consumption and $CO_2$ emissions. With the help of smart technologies like artificial intelligence (AI), Internet of Things (IoT) connection, and machine-learning, we have ways to flatten the curve for energy use in condos with more efficient use of heating, cooling, gas and water.

This is a new approach compared to more traditional, manual building operations that are not economically feasible for non-profit corps. And it all starts with a few steps, all for little to no up-front capital:

***Step 1: Assessment***

During an initial assessment, engineers analyze the property and equipment operations. They look for inefficiencies

in equipment and predict the opportunities for a property to realize energy and cost savings in the future. They determine what demand indicators are needed to gain better control and match the supply of these systems with the residents' demand dynamically. With this estimate in hand, they work collaboratively with condo managers to identify what building set up is best. Once the plan is approved, it is time for step two.

***Step 2: Installation***

Installation involves attaching smart sensors and controls to current equipment.

These new sensors act like messengers. They run on a connected internet network and send mass amounts of information on how your building is functioning. For example, floor 10 might have high humidity, or there's a boiler pump down; or an exhaust fan on level 3 isn't running as smoothly as it could be, etc.

The software collects data and uses it to calculate and balance the best heating, ventilation and air conditioning (HVAC) settings for the building under various conditions, i.e. winter heating vs. summer cooling.

***Step 3: Reap the rewards***

Positive operational changes can be undertaken in less than a month, with virtually no disruption to condo operations. To benchmark where energy was conserved, a monthly report will illustrate savings and overall energy performance in the form of water, air, heating and cooling, just to name a few.

Not only will these smart technologies help rebalance a building's operational function, but they can predict the best living conditions for your residents in real-time.

For example, keeping $CO_2$ levels low in shared spaces is crucial for resident's memory[3], overall health and productivity.[4] Smart sensors located throughout a condo can help recalibrate $CO_2$ levels to a healthy 350-1000 parts per million, which is recommended for ideal resident comfort.[5]

As an added feature, an alerting system is included in some software. If the condo's heating system goes down mid-winter, tenants are sure to notice within an hour or so – maybe less. Receiving a service alert about the heat failure means it can be remedied long before tenants realize there's a problem. This is an essential service for property managers as time is the most valuable commodity they have.

## Valuable Cost Savings

Finally, with efficient operations comes valuable cost savings. With condo operation systems running at optimized performance levels, condos can see a return on investment up to 70 percent. This means more money saved for the condo's cash reserve that can be used for future maintenance demands, landscaping, facility upgrades, maintaining low fees for owners, and creating healthy surpluses.

Not to mention existing smart condo building technologies have reduced up to 7 million pounds of GHG emissions. Overall, having greater visibility into a building's energy performance offers condo managers peace of mind for meeting sustainable and cost-saving targets.

With rising demand and a need for climate action, condominium managers and their boards have a unique opportunity to tap into existing technologies to reach a property's environmental and cost-saving goals. These smart technologies invite condo boards to become more dynamic and efficient in their operations. So, what are you waiting for? See how your building can take sustainability metrics as seriously as profit metrics. ■

*1. https://www.worldgbc.org/news-media/global-status-report-2017*
*2. https://www.nature.com/articles/s41558-020-0797-x*
*3. https://www.yaleclimateconnections.org/2016/07/indoor-co2-dumb-and-dumber/*
*4. https://www.yaleclimateconnections.org/2016/07/indoor-co2-dumb-and-dumber/*
*5. https://www.washingtonpost.com/news/energy-environment/wp/2015/10/27/why-your-office-air could-be-crimping-your-productivity/*

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