

Energy management

in rental properties

By David Gargaro



The rental housing market has always had a high sensitivity to energy costs. As a result, building owners and landlords tend to rely on hands-on activities to realize savings, and are often very proactive in finding ways to reduce those costs. This often involves upgrading systems that provide immediate returns in energy cost reductions. Landlords will often update lighting in common areas, such as parking garages, hallways and stairwells, and replace aging existing equipment, such as boilers and unit heaters, with more efficient models.

However, one tool that can help with reducing energy usage, but that has not seen as much uptake as other technologies, is a utilities monitoring system. This system enables landlords to track electricity, natural gas and water usage in their buildings and compare the results against historical energy data. A utilities monitoring system can demonstrate that a boiler is using more fuel on a particular winter day as compared to previous years under the same weather conditions. This could indicate that the boiler needs recalibration or repair, and can have a significant impact on performance and operating efficiency.

“Utility monitoring has enabled me to isolate energy efficiency problems by tracking usage in specific common areas,” said Jason Birnboim, Owner and President, Beaux Properties. “Being able to monitor my buildings’ electrical usage has inspired me to look for ways to improve efficiencies in other areas, which has resulted in the dual benefits of reduced consumption and reduced cost.”

A utilities monitoring system can also track the building’s water usage and identify anomalies. When fixtures function properly, there should be nearly zero water usage during the early morning period after midnight.

A utilities monitoring system can notify the landlord of abnormal water usage, which could indicate that a tap or toilet is running. The landlord can then post a notice about the issue in the elevators or around the building to inform tenants of the matter and ask for feedback instead of doing a building-wide suite inspection.

“One of the key benefits of a utilities monitoring system is that it provides timely awareness of over-consumption of water or electricity, which enables landlords to correct the problem in a timely manner,” said Rick Williams, President, CARMA Industries. “By connecting the system directly to a building’s utility meters, we can monitor performance on a day-to-day basis in real time, and set up automated alarms to notify the building’s landlord of the matter.”

Some landlords prefer to manually monitor their utility expenses by comparing their current and past utility bills. This method is insufficient to identify fluctuations in usage. A comprehensive utilities monitoring system can identify hourly, daily, monthly and annual variations in water utilities usage. Natural gas usage is weather dependent and relies on daily heating degree day information to evaluate boiler efficiency. Many boilers do not have feedback systems, so monitoring software is the only way to determine when the equipment is not operating efficiently.

As with any cost-saving analysis tool, utility monitoring requires an investment from the landlord. There is a cost associated with accessing the city’s utility meters, installing the monitoring equipment in the building and providing monthly monitoring services. A key benefit of this investment is the ability to identify anomalies and waste in utility usage that will produce significant savings over the long term.

“Over the last two years, we’ve been able to reduce long-term maintenance costs by re-verifying utility monitoring systems,” said Rick. “This involves replacing all the meter electronics in the building, without disrupting the power to tenants, to determine whether there is accuracy drift. We retest and replace equipment every six years to ensure that monitoring remains accurate within one per cent.”

Suite submetering is a popular and growing trend among landlords, as it provides energy savings and reduced expenses. Some markets (such as Ontario) require tenant turnover before suite electricity submeters can be activated, which would then make the tenants responsible for their own electricity usage. Submetering removes each activated unit’s electricity cost from the building’s overall electricity usage costs, and enables the landlord to measure electricity usage between past and current tenants to identify differences.

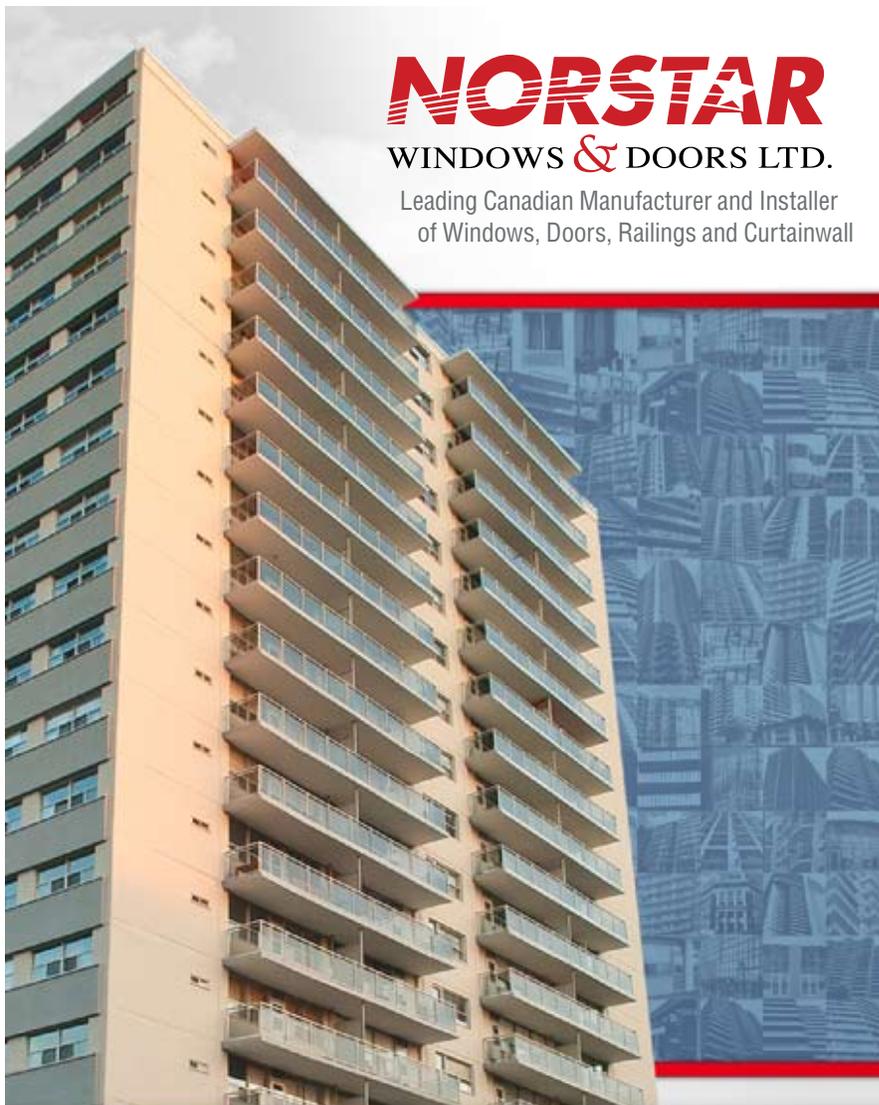
“The Ontario Energy Board has prescriptive rules for the implementation of submetering in rental properties, so there is no risk for building owners or service providers,” said Rick. “There are also definite benefits for tenants, as they get a better handle on their electrical consumption. There has been a 47 per cent reduction in electrical consumption in enrolled rental suites once the meters have been activated.”

Landlords who have implemented utility monitoring or submetering have realized a number of benefits from the technology. Understanding how they can save money by tracking energy usage has inspired some landlords to make their buildings more energy efficient, such as installing LED lighting in corridors and replacing windows to reduce heat loss. It has also enabled them to conserve energy as part of an overall initiative of being more environmentally responsible.

Some landlords have found tenants are more responsible with their personal usage because they are more accountable for the costs. They have also determined that current and potential tenants in their 20s, who make up almost half of

their client base, are more informed and educated about submetering and energy efficiency. Potential tenants commonly ask about whether utilities are included in the rent, and want to know whether the building possesses environmentally friendly features, such as lighting timers and energy efficient appliances.

“Landlords have to be aware and educated about issues that are important to tenants, and that includes making their buildings more environmentally friendly and tracking energy usage and costs,” said Jason. “I’m currently exploring the prospect of solar power and how it can be implemented in our multi-residential properties on a cost-effective basis.” **RHB**



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