

BENCHMARKING & LABELLING LOW-COST/NO-COST IMPROVEMENT OPPORTUNITIES WORKPLACE CONSERVATION GREEN POWER MARKETS ON-SITE ORGANICS RECYCLING

## **Buying into SUB-METERING**

## Shopping Mall Managers and Tenants Realize Savings

## By Margaret Manetta

**SUB-METERING** can offer energy and cost-saving advantages for shopping mall owners/managers and retail tenants. In properties with bulk meters, electricity costs are typically averaged and apportioned per square foot then passed through to tenants' rents – a practice that penalizes efficient users for the benefit of those who consume more.

Sub-metering introduces a user-pay model, ensuring that tenants pay for their actual usage. It's also an information tool that can motivate new behaviour.

Businesses that have traditionally used a higher percentage of energy may see a new economic case for implementing energy conservation measures. National retailers with hundreds of stores could realize significant savings if, for example, they cut back on lighting loads or reduce air conditioning during certain times of the day.

East York Town Centre is a 380,000-square-foot retail/office complex in Toronto where sub-metering was introduced about three years ago. For the mall's managers, Morguard Investments Limited, sub-metering was an extension of the company's national environmental improvement program, Green Link, which promotes the continuous green operation of properties through the use of green technology, practices and design.

"Sub-metering provides more detailed information of what our actual common area utility consumption is, allows us to implement energy conservation programs and shows us how we are progressing with reducing our carbon footprint at the Centre" says Edyth Karwecki, General Manager of East York Town Centre. "For example, we switched our lighting from T12 to T8 and were able to get a real sense of the savings created by this upgrade, which was in the 15% range."

The year prior to sub-metering, the shopping centre's total annual building



consumption was more than 9.1 million kilowatt-hours (kWh). One year after submetering, annual consumption had dropped to about 8.25 million kWh – a reduction of nearly 900,000 kWh.

Sub-metering coupled with other energy reduction improvements has achieved a three-year reduction of 3.8 million kWh and more than \$380,000 in savings, which can be credited to metered tenants. Morguard is now planning to introduce sub-metering in other properties.

"We also hope to gather more concrete information of our common area utility consumption so that we can benchmark and present ideas to reduce consumption, as well as have the ability to measure it," Karwecki says. "By doing so, we are able to take advantage of incentives and government grants that are available."

Tenants in sub-metered shopping centres have access to the details of their actual usage to better control their monthly utility costs. Coupled with an energy monitoring system that allows users to see their actual energy use via a password-protected website, they have the information to measure and verify energy waste and to take corrective action. With real-time energy data uploaded every 15 minutes, tenants can become proactive in initiating cost saving energy strategies.

"Tenants are much more aware of how their lighting costs can affect their bottom line, and are taking a much more proactive role in their energy usage" Karwecki notes.

The message also resonates with mall

patrons. Customers are increasingly recognizing businesses that practice environmental stewardship and have corporate sustainability programs.

Owners and property managers of shopping centres can use data from energy monitoring systems to validate reductions in total annual building kWh consumption and calculate equivalent carbon dioxide (CO<sub>2</sub>) reductions. For example, data from East York Town Centre's energy monitoring system indicates a reduction of 772.84 metric tonnes of CO<sub>2</sub> has been achieved during two years of sub-metering.

The system helps managers to better grasp where and when electricity is consumed – knowledge that can be applied in building operations and capital planning.

"Reporting assists in the development of project plans for equipment upgrades where power savings is the desired outcome, for example, purchase of new chillers and cooling towers," Karwecki explains. "Additionally, because consumption is metered and more closely monitored, electricity increases can be recognized and problems can be more quickly isolated and resolved."

Margaret Manetta is Marketing Coordinator for CARMA Industries Inc., providers of the METER MANAGER™ system at East York Town Centre. For more information, see the web site at www.carmaindustries.com.