Reduce Electricity Costs with Demand Control Ventilation

The saveonenergy program helped us implement energy savings projects across 129 of our retail stores in order to reduce our energy consumption and carbon footprint.

PROJECT DETAILS

ENERGY SAVINGS
2,500,000 kWh per year

DEMAND SAVINGS
1,000 kW

ANNUAL NATURAL GAS SAVED
2,000,000 m³

CARBON REDUCTION
5,000 tonnes

“Canadian Tire has been committed to sustainable operations for a very long time,” says Rob Simpson, Manager of Design and Sustainability at Canadian Tire. “We were one of the first Canadian companies to include sustainability metrics as part of our quarterly and annual reporting. We’ve implemented a number of energy efficiency initiatives in our existing stores—from lighting retrofits and building automation to the way we heat and cool our buildings. So when we heard about how the saveonenergy program could support projects like Demand Control Ventilation to reduce energy consumption, we were eager to learn more.”

February 2014
WHAT IS DEMAND CONTROL VENTILATION?

Traditionally, heating and cooling systems have been designed to meet air quality standards by using general guidelines for minimum air ventilation rates provided by ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers). The traditional approach maintains a constant outdoor air volume based on the size and design occupancy of the space. Outdoor air usually needs to be conditioned. This method can often result in a significant waste of energy and money during times when fewer people are in the building.

A Demand Control Ventilation (DCV) system uses carbon dioxide (CO₂) sensors to monitor the levels of carbon dioxide in the air on a continual basis. Changes in a building’s occupancy will affect the level of carbon dioxide in the space. The monitors detect this and increase the supply of outdoor air. When fewer people are in the building, the controller reduces the volume of ventilation air to reduce energy consumption while maintaining the indoor air quality.

SEEING THE SAVINGS

The savings estimated across the 129 stores were based on a number of factors, and so far the program is meeting expectations. Annual energy savings are expected to include 2.5 million kWh, 2 million m³ of natural gas, over 1,000 kW of Demand Savings, and over 5,000 tonnes of CO₂.

INCENTIVE BENEFITS

Due to the ease of the saveOnenergy RETROFIT PROGRAM and the resulting benefits of this project, Canadian Tire isn’t stopping at DCVs. “We are always looking at the latest technologies, including advances in lighting technology and opportunities to improve our efficiency from a heating and cooling perspective,” says Simpson. “We expect many of these technologies to be integral to future energy saving projects. We would eagerly participate in the saveOnenergy programs in the future.”

CONTACT US TODAY

TEL 416.542.3388
FAX 416.542.2980
EMAIL cdm@torontohydro.com
WEBSITE torontohydro.com/business