

THE GLOBE AND MAIL

WEDNESDAY, OCTOBER 8, 2008

University's energy-reduction efforts offer valuable lessons

The University of Windsor has two very good reasons to be at the forefront when it comes to energy conservation, says Phil Diett, the university's electrical systems maintenance supervisor and the person responsible for maintaining its electricity needs.

"The first is cost savings," says Mr. Diett. "We have 40 buildings on the campus, and in total we use about 12 million kilowatt-hours (kWh) a year. Anything we can do to reduce our annual energy costs is well worth looking at."

The second is simply the need to practice what it teaches. The university has a thriving

environmental studies program and is home to the Great Lakes Institute for Environmental Research. "We have a moral obligation to be a leader in conservation," he says.

This past year, the university clearly showed it took its leadership role seriously. It undertook a program to replace incandescent lighting in four of its structures with long-life, low-wattage fluorescent fixtures, introduced new photoluminescent technology and continued its program of adding occupancy detectors to switch lights on and off.

The result was total savings of approximately 635,000 kWh of consumption. "That is

the equivalent of reducing greenhouse gases by 139,700 kilograms a year," says Mr. Diett.

The University of Windsor's lighting replacement program is just one example of the ways in which Ontario's Ministry of Training, Colleges and Universities, institutions across the province and the Ontario Power Authority are working together to conserve energy, says Constantine Eliadis, OPA's director of commercial and institutional programs.

"What we are finding is that universities like the

See University, OPA 2

University of Windsor lighting retrofit generates savings

University of Windsor have become enormously innovative in the way they are adopting the latest technology," he says. "They are helping lead the way to a better, more sustainable future."

In the case of the University of Windsor, that meant replacing 197 400-watt metal halide fixtures in the 5,852-square-metre St. Denis Field Hall with custom-built T5 fluorescent fixtures and installing sensing devices to reduce energy use when the five basketball courts are not in use.

Savings are estimated at between 233,000 and 272,000 kilowatt-hours a year, Mr. Diett says.

In the Leddy Library, the university is installing 200 occupancy sensors in the stacks. "The stacks only need lighting when they are used, which our studies indicate is as little as eight minutes out of every hour," explains Mr. Diett. Here the savings are anticipated to be between

87,000 and 100,000 kWh.

It will replace 382 100-watt incandescent lights in the underground connecting tunnels with 200 32-watt fluorescent bulbs for an annual savings of 211,000 kWh. Perhaps the most innovative step is the plan to replace 60 per cent of the traditional exit signs with new, self-powered photoluminescent versions supplied by PNA Group of Oakville – demonstrating that conservation not only saves money, it supports Ontario's economy and creates jobs.

"The signs use strontium oxide aluminate, which is non-toxic, non-radioactive and compatible with our environmental objectives," he says. "They absorb energy from adjacent light sources and release it in the form of visible light when the external source is extinguished." No other additional energy input is required.

"We are accepting responsibility to practise what we teach," says Mr. Diett. ■

Results

Organization:	University of Windsor
ROI:	Reduced consumption of 625,000 kilowatt-hours
Grant/incentives:	OPA Electricity Retrofit Incentive Program, Ontario Ministry of Training, Colleges and Universities

For information on how your organization can participate, visit: www.everykilowattcounts.com/business