ABOUT ROCKWELL AUTOMATION

Rockwell Automation, Inc. (NYSE: ROK), the world’s largest company dedicated to industrial automation and information, makes its customers more productive and the world more sustainable. The company has two major brands, Allen-Bradley and Rockwell Software, which offer a comprehensive suite of automation solutions that includes control and information platforms, industrial components, intelligent motor control, and global manufacturing support services. Rockwell Automation employs about 21,000 people serving customers in more than 80 countries. Canadian headquarters are located in Cambridge, Ontario. This 300,000-square foot facility was built in 1954. Rockwell Automation Canada employs about 900 people in the Cambridge facility.

LOCATION

ADDRESS: 135 Dundas Street, Cambridge, Ontario
PHONE: 519-623-1810
WEBSITE: http://ca.rockwellautomation.com

ENERGY EFFICIENCY – LIGHTING

In 2011, Rockwell Automation completed the first of two phases of a lighting retrofit at its Cambridge facility’s warehouse. The warehouse retrofit began with an audit of the existing lighting fixtures, which found the traditional fluorescent tube fixtures (Metal Halide Clear 400 W) that had been in use since the 1950s. The retrofit involved replacing the old HID lighting on the plant floor with 700 new THINK high bay magnetic induction lighting fixtures (Miser 200 W 120 v High Bay Fixture MHBE 22” Aluminum Reflector). One hundred of the fixtures are equipped with motion sensors so that lighting stays off in unoccupied areas of the warehouse.

COSTS AND SAVINGS

The retrofit was completed with the assistance of, and rebates from, Cambridge and North Dumfries Hydro’s Electricity Retrofit Incentive Program for businesses. The retrofit was installed by THINK Green Solutions, a division of Reonac Energy Systems.
The retrofit has resulted in a 1.6 million kWh reduction per year, which corresponds to the elimination of about 2.3 million pounds of carbon dioxide emissions per year. This will have the equivalent impact of:

- taking 257 cars off the road every year
- saving about 115,600 gallons of gasoline from being burned every year
- planting about 44,450 trees per year, or close to 889,000 trees over 20 years

With the retrofit, Rockwell will realize a 43 percent cost savings per year on electrical costs. The payback for Phase 1 of Rockwell's lighting retrofit was about 28 months.

**OTHER BENEFITS**

Rockwell chose these fixtures, which are instant strike light fixtures, in part because there is no wait time for the lights to warm up after a power outage. In a facility that runs 24 hours a day, 7 days a week, this feature of the lights was considered quite valuable. As well, magnetic induction lighting is said to outperform traditional fluorescent, sodium vapour and metal halide lighting in terms of hydro costs and maintenance costs (the lights have a 100,000 hour lifespan, so need to be replaced less often). The lighting is 100 per cent recyclable and has a low mercury content that is in a solid amalgam (non-volatile) form. Solid mercury is safer in case of lamp breakage and can be more easily recycled.

The lighting environment resulting from the retrofit has been a boon for employees. They report that they can see better, that the light is easier on the eyes and renders colour better, and that they enjoy the environment more than with the old lighting. Furthermore, the new lighting has solved a previous problem with flickers in the electricity that would occur two to three times a day. This flickering would shut everything down and it would take upwards of 20 minutes to return to normal. The magnetic induction lights are flicker-free and require no waiting time between re-strike.
CHALLENGES

Challenges involved the strict deadlines and commitment from the organization during the rebate submittal. There were also significant challenges to install the lighting fixtures without any downtime of operations.

RECOGNITION

Reonac Energy System Inc’s presented Rockwell with its Think Green Certification in March 2011 in recognition of the company’s THINK Induction Lighting Upgrade. Rockwell was also recognized by Cambridge and North Dumfries Hydro Inc. in 2011 for its outstanding commitment to energy conservation and environmental sustainability by participating in the Electricity Retrofit Incentive Program.

MOVING FORWARD

Rockwell completed Phase 2 of the lighting project in May 2012. Phase 2 replaced lighting in one portion of the warehouse that was not upgraded as part of Phase 1. In that area, 69 existing fluorescent HID lights will be replaced with 49 new THINK induction lighting fixtures, 35 of which will be installed with sensors.

Phase 2 is expected to reduce energy use by 197,144 kWh per year, resulting in the elimination of 270,087 pounds of carbon dioxide emissions per year. The payback for Phase 2 will be about a year. All of the spent lamps have been sent for recycling.

ROCKWELL’S ENVIRONMENTAL POLICY

“Rockwell Automation is committed to demonstrating the highest standard of global environmental management. Our policy is to go beyond strict regulatory compliance and to act in the interest of the communities in which we live and work. We are committed to the continual improvement of our environmental management system and performance, including resource conservation and pollution prevention. We relentlessly strive to be the best in all aspects of environmental management by fostering a culture of trust, teamwork, accountability, partnership and communication with employees, suppliers, customers and outside organizations.”
WHAT IS PARTNERS IN PROJECT GREEN?

Opportunities to gain a competitive advantage through sustainable business practices are more attainable than you think. Partners in Project Green is a growing community of businesses working together to green their bottom line by creating an internationally-recognized eco-business zone around Toronto Pearson.

Through new forms of business-to-business collaboration, Partners in Project Green delivers programming that helps businesses reduce energy and resource costs, uncover new business opportunities, and address everyday operational challenges in a green and cost-effective manner.

PEARSON ECO-BUSINESS ZONE

www.partnersinprojectgreen.com