

Sustainability Success Story

New lighting saves \$4,000 /yr. in electrical and maintenance

The Challenge

A lighting system in a 330 square meter atrium at our Richmond Campus provided very low light levels at night for students and employees in the area. As well, this system was expensive to operate and maintain due to the type of lighting (incandescent), the number of fixtures (36), and their mounting height of 6 meters.

Our Solution



We evaluated our light level requirements and determined optimum fixture locations based on space use and ease of access for maintenance. Next, we selected light fixtures that would fit in well with our existing building finishes. A lighting layout was designed to find the optimum number of fixtures, mounting locations, and angle adjustment.

The proposed project was forwarded to BCHydro and approved from their Epoints funding. Once approval was granted, the project was implemented and entirely paid for by BCHydro.

Project Cost, Annual Savings and Other Benefits

<i>Project Cost</i>	\$15,000
<i>Electrical Dollar Savings</i>	\$2,200
<i>Project Savings</i>	\$4,000 per year (Electrical / Maintenance costs)
<i>Electricity Savings</i>	46,000 kWh (about 1/2% of our total consumption)
<i>Simple Payback (years) / Return on Investment (ROI)</i>	3.7 Years / A Return on Investment of 27%
<i>Reduced Maintenance Costs</i>	Annual maintenance costs will be reduced by \$1,800
<i>Environmental Improvement - Greenhouse Gas Reduction</i>	Reduced emissions of 16 Tonnes of GHG
<i>Reduced Environmental Mercury</i>	A kWh of coal-fired electricity puts substantial mercury in the atmosphere. More efficient products mean less kWh Reduced electrical costs (for this specific application) by over 90%. This is 2% of entire maintenance cost
<i>Other Benefits</i>	Reduced maintenance costs by 97% (for this application). Present maintenance costs are estimated at \$5 / year. Lighting levels have been improved by 200%