

# ENERGY STAR® -- Success Story



Save Energy - Save Money  
Help protect the environment



Économisez énergie et argent  
Contribuez à protéger l'environnement



## Energy-Efficient Seasonal Lights - Add Energy Savings to Your Christmas List



### On the Bright Side

Just before Christmas 2003 Natural Resources Canada (NRCan) and BC Hydro Power Smart joined forces with manufacturers and lighting retailers in British Columbia to promote energy-efficient seasonal light strings. The light strings use light emitting diode (LED) technology. The campaign was designed to educate consumers about the benefits of Seasonal LED (SLED) technology as well as increase purchases through market based incentives. BC Hydro Senior Vice-president of Distribution, Bev Van Ruyven said, "LED lights use 95 percent less energy than incandescent, translating to significant savings for the customer and energy savings for BC Hydro."

SLED lights are not made with glass or filaments so are less prone to break. They don't produce a lot of heat making them less of a fire risk. These impressive characteristics mean that these lights are expected to last up to seven times longer than regular lights. Replacement strings do not have to be purchased as often and households can decorate to their liking knowing that they are consuming very little energy.

Source: <http://www.bchydro.com/powersmart/shop/shop8849.html>

The introduction of SLED lights in British Columbia was the first anywhere in Canada. The British Columbia pilot project was designed to speed up the introduction of energy-efficient seasonal lights across Canada and meet the four following objectives:

- To introduce and demonstrate the benefits of energy efficient technology to residential customers
- To increase sales of SLED lights in BC through rebate and promotional programs so that by 2008, 20% of seasonal lights in use are SLED
- To gauge consumer and retailer acceptance of the product
- To achieve significant electrical energy savings during the peak demand heating season

### About ENERGY STAR

The international ENERGY STAR symbol is a simple way for consumers to identify products that are among the most energy-efficient on the market. Only manufacturers and retailers whose products meet the ENERGY STAR criteria can label their products with this symbol. In Canada, Natural Resources Canada's Office of Energy Efficiency administers and promotes the international ENERGY STAR symbol for a wide range of energy-using products sold in Canada.

Look for the ENERGY STAR symbol on product packaging, in product literature and advertising and, of course, on the products themselves. Ask your local retailer to help you identify products that qualify for the ENERGY STAR mark so you can begin saving energy and money. For more information visit the ENERGY STAR website at: [energystar.gc.ca](http://energystar.gc.ca).

LED technology has proven energy and cost saving capabilities. Compare the performance of regular incandescent lights, mini incandescent lights and SLED lights required to decorate an eight foot Christmas tree on the table to the right.

These figures are based on the assumptions that the lights are in use 31 days a year for 5 hours a day and that consumers are paying 6 cents per kWh for energy.

| Seasonal Light       | Energy Used/Year (kWh) | Cost/Year (\$) |
|----------------------|------------------------|----------------|
| Regular Incandescent | 96.88                  | \$5.81         |
| Mini Incandescent    | 23.25                  | \$1.40         |
| SLED                 | 1.86                   | \$0.11         |

## The Bright Idea

Several market-based incentives were used to promote sales of the SLED lights in British Columbia. BC Hydro administered, while NRCan and the manufacturers (Fiber Optic Designs and Toprio Electronics) shared the cost of a \$5.00 mail-in rebate coupon on lights bought from various retailers. The campaign goal was to have 30,000 coupons redeemed. That goal was surpassed by 23,512 coupons! In total 11% of the 470,000 SLED light strings sold during the fall and winter season in B.C. were purchased with a coupon.

A separate promotional activity funded in part by NRCan and the manufacturer Conglom Inc. provided an in-store rebate of \$2.00 at Costco where they sold 100% of the 19,800 Luminus Brand LED lights they had in stock.

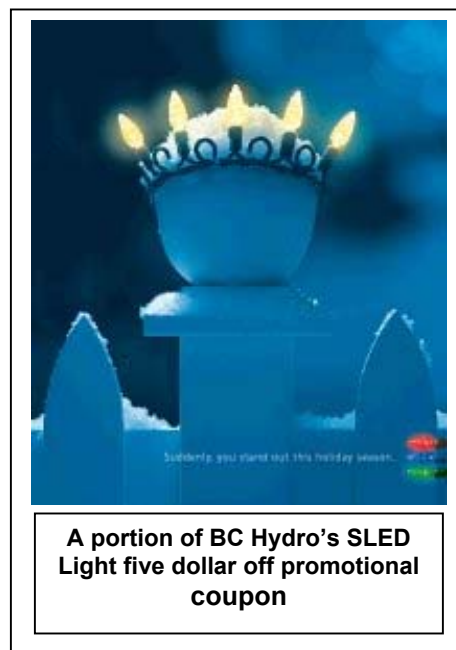
A trade-in pilot project was carried out by a limited number of retailers in lower mainland areas of B.C. This initiative encouraged 1709 consumers to bring in older energy intensive incandescent light strings in exchange for one new SLED light string. NRCan, the manufacturer Toprio Electronics and BC Hydro together covered the promotion and product costs of this project. As well, Toprio Electronics was responsible for the safe disposal and/or recycling of the returned incandescent lights.

Approximately 2.5 % of all BC Hydro's Households participated in the 2003 promotional activities. SLED lights comprised 9% of the seasonal light market in B.C. The fact that most retailers sold 100% of their SLED stock demonstrates that these strings were well received by retailers and the public. The future success of these little lights will be based on increased customer acceptance nation wide and will eventually translate into excellent energy savings for all Canadian residents.

## A Bright Future

An energy savings of approximately 10 kWh per string is achieved with SLED lights in comparison to traditional seasonal lights. The initial energy savings target for this pilot project was 2.61 GWh, however the actual energy savings generated by this campaign were tabulated at 4.01 GWh. With every GWh there is a reduction of 360 tonnes of greenhouse gas (GHG) emissions. This campaign prevented the release of 1444 tonnes of GHG emissions in BC.

The SLED Lights are a practical way to reduce energy consumption especially at a time of year when BC Hydro experiences its greatest power demand. The lights make the holiday season colourful and festive without adding excessive pressure on the power grid. "The energy cost of operating a string of LED lights is a fraction of the cost



of conventional holiday lights,” said the Honourable John Efford, Minister of Natural Resources Canada. “These lights have the potential of making a significant dent in the electricity consumed by festive lighting, thereby helping to reduce greenhouse gas emissions produced in Canada.” This pilot project proved that the public in BC is very interested in SLED lights. These lights will be available to the rest of Canada, so everyone can keep savings in mind when writing up next year’s Christmas list.

## Contact Information

### BC Hydro

Lower Mainland 604-431-9463  
Elsewhere in B.C. 1-877-431-9463  
[www.bchydro.com](http://www.bchydro.com)



**For more information on ENERGY STAR  
contact the Office of Energy Efficiency  
Kathy Deeg 613-947-5001**

For tips on energy-efficient products visit the ENERGY STAR website at [energystar.gc.ca](http://energystar.gc.ca) or Natural Resources Canada's Office of Energy Efficiency (OEE) website at <http://oee.nrcan.gc.ca>

For free publications write or call:

Energy Publications  
Office of Energy Efficiency  
Natural Resources Canada c/o S.J.D.S.  
Ottawa Ontario  
K1A 1L3.

Fax: (819) 779-2833  
Toll-free 1 800 387-2000  
In the National Capital Region, call 995-2943

**Natural Resources Canada's Office of Energy Efficiency administers  
and promotes the international ENERGY STAR symbol in Canada.**