

Save Money with Energy Efficient Christmas Lights *By Saskatchewan Office of Energy Conservation*

Light displays are part of the winter holiday season for many Saskatchewan families. Choosing the most efficient holiday lights and lighting controls can help make this holiday season “green” as well as bright—and save you money.

Conventional incandescent, screw socket lights add to holiday expenses. Durability is often poor and frequent bulb replacement is required.

This type of lighting also draws a surprising amount of power. One analysis of energy use for holiday lighting showed an average load increase of 400 watts in the early evening throughout parts of December and January. It was also found that many households leave their holiday lights on all night and even during parts of the day.

Outdoors, most of the energy used for lighting is actually wasted as heat. Indoors, the heat from conventional lighting can be dangerous. Five strings of lights on a Christmas tree generate as much heat as a small baseboard heater, creating a fire hazard on a dry tree.

For cheaper and more efficient holiday lights, here are some options to consider:

- Seasonal light emitting diodes (LED) lights, incandescent mini lights, rope lighting, or fibre optic cabling all use less energy than conventional incandescent lights.
- The most efficient option is seasonal LED strings, which are superior to standard incandescent light strings in a number of ways: they use about 90% less energy than conventional lights; they are more durable, lasting up to 20 times longer; and they produce very little heat, which reduces the risk of fire.

When purchasing seasonal LED lighting, remember to look for a product that includes a minimum two-year warranty.

- The incandescent mini-lights that currently dominate the holiday lighting market also use a fraction of the energy that conventional incandescent lights use and generate considerably less heat than the larger bulbs.
- If you still prefer the look of conventional lights, using 5W bulbs rather than 7W bulbs will reduce your operating costs by 30%.
- Timers and photocells can also save energy and money by automatically turning lights on at dusk and turning them off at a scheduled time, such as 11:00 p.m. Ensure that the timer is designed for the required amount of wattage.

- Another option is rope or flexible lighting consisting of miniature incandescent lights encased in flexible plastic tubing about 1/2" in diameter. Spaced about 1" apart, the bulbs use approximately 0.5 watts of power—or 5 watts per foot—and are rated to last over 20,000 hours. Available for indoor or outdoor use, the bulbs and tubing come in several different colours, and are well-suited for decorations or as feature illumination.
- For a more traditional look, try decorating your Christmas tree without using electric lights.
- Artificial trees that use built-in fibre optic cabling to send light throughout the tree from a single incandescent bulb are also gaining in popularity. The heat generated from the single 5-20 watt bulb is minimal. Branches where hundreds of tiny fibres distribute the light are cool to the touch and many trees come with rotating colour wheels that change the colour emitted by the fibres.
- Even energy-efficient holiday lights are bright enough to light up your yard, so remember to turn off your regular porch or yard lighting over the holiday season to save additional energy.

With the energy cost of operating newer, more efficient seasonal lighting such as LED strings at a fraction of the cost of conventional options, widespread adoption could take a big bite out of Saskatchewan's festive lighting bill this winter.

The Office of Energy Conservation is a resource for information on cost-effective energy conservation initiatives and practices for Saskatchewan. For more ideas on saving money through energy efficiency, visit the OEC web site at www.oec.ca or call the OEC Hotline at 1-800-668-4636.