



TEAM UP FOR ENERGY SAVINGS

Lighting

Saving the environment and saving money can be as easy as flipping a switch. That means you're on the front line for energy-saving opportunities. Team up with co-workers to spot ways to reduce the energy your lighting system uses – it's good for the environment and good for the bottom line.

Shine a spotlight on lighting costs

Check out your facility: Are the lights in each area appropriate for the work performed there? Are more energy-efficient lights available? Inspections can shed light on these and other opportunities to conserve energy and cut costs. There are three main areas to consider:

1. Housekeeping

- » Turn off lights left on in unoccupied areas. It sounds simple, but it takes teamwork to make sure unneeded lights are turned off.
- » Switching off unneeded lights scores big savings in electricity. It also cuts your air-conditioning bill and the refrigeration load in coolers and freezers.
- » Turn off:
 - » Incandescent lights that aren't needed
 - » Fluorescent lights when they'll be off for at least 15 minutes
 - » High-intensity discharge (HID) lights when they'll be off for at least an hour
- » Consider installing timers, photocells and occupancy sensors. Or integrate the lighting system into an energy management control system.
- » Dust and grease on lighting fixtures can reduce the light that reaches the target area by as much as 30 percent.
- » Clean fixtures at least every two years. Clean them more often in greasy, dusty or smoky places and when the heat they generate is part of a heating, ventilating and air-conditioning (HVAC) system.

2. Low-cost opportunities

- » Where possible, remove lights. Make sure unused light ballasts are also disconnected – they use electricity even when the bulb is removed.
- » Install dimmers. For example, plant production areas can be fully lit during production periods and dimmed when cleaning and security staff are on duty.
- » Reducing general lighting while increasing task or workstation lighting often boosts the occupants' comfort while cutting electricity costs.

3. Retrofits

- » Blow the whistle on energy-wasting lights. Retrofitting usually pays back within a reasonable amount of time because it cuts electricity costs. And new equipment automatically complies with the *Energy Efficiency Act* and *Energy Efficiency Regulations*, which set minimum requirements for lamp efficacy and lighting quality.



Evaluate your lighting system

1. Are unnecessary lights turned off?

- Yes Recheck periodically.
- No Train staff to turn lights off.
Install timers or sensors to turn lights off automatically.
Consider a lighting management system for your facility.

Done by: _____

Date: _____

2. Are light fixtures clean?

- Yes Recheck periodically.
- No Wash lamps, lenses and reflecting surfaces.
Make a cleaning schedule.

Done by: _____

Date: _____

3. Are light levels appropriate for each area?

- Yes Recheck periodically (if possible, use a light meter).
- No Remove lamps or retrofit with high-efficiency, low-wattage lamps.
If light levels are too low, consider task lighting.

Done by: _____

Date: _____

4. Are there incandescent lights?

- Yes Consider replacing them with high-efficiency lamps.
Consult a lighting expert.
- No No action required.

Done by: _____

Date: _____

5. Are large spaces with high ceilings lit with inefficient fluorescent lights?

- Yes Consider replacing fluorescents with high-efficiency fixtures.
- No No action required.

Done by: _____

Date: _____

6. Are large areas lit with mercury vapour lights?

- Yes Consider replacing mercury vapour lights with more energy-efficient ones.
- No No action required.

Done by: _____

Date: _____

7. Do all light fixtures meet the requirements of the *Energy Efficiency Act*?

- Yes No action required.
- No Consult a lighting expert.

Done by: _____

Date: _____

FOR MORE INFORMATION on these and other energy-saving opportunities, see Natural Resources Canada's *Energy Efficiency Planning and Management Guide* at: oee.nrcan.gc.ca/publications/infosource/pub/cipec/efficiency.

