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: oee.nrcan.gc.ca/industrial