



Power Smart Traffic Light Program Questions and Answers

1. How long do Light Emitting Diodes (LEDs) Last?

LEDs last significantly longer than incandescent traffic signal lamps, which have a rated life of 8000 hours or approximately one year of continuous operation. Currently, LEDs have a 100,000-hour rated life, and provide 7- 10 years of traffic signal service. The newer generation LEDs are expected to perform even better: Manufacturers have been required to warranty all products purchased under the Traffic Light Program for a minimum of six years.

2. Do existing signal heads have to be retrofitted to accept LEDs?

When a traffic signal is converted to an LED module, the incandescent lamp and reflector assembly is completely removed and replaced with the LED module. This is a simple process and should take typically 5 to 7 minutes per module.

3. How will this affect existing intersection protection and control equipment?

There is no change to the intersection protection and control equipment. In most cases, the retrofit of the LED module can be done without interrupting the signal operation.

4. Do Yellow LED lights meet Institute of Transportation Engineers (ITE) specifications? Are these Ministry of Transport (MOT) approved? Can I install yellow LEDs?

Currently there is no yellow LED module that meets all the requirements of the current ITE incandescent lamp specification for spectral light output. An ITE committee is currently working on an LED based specification. The current yellow LED modules can be ordered under the program but are not eligible for an incentive and the customer must pay the cost of the lights.

5. Some green lights do not meet our payback criteria. Why do we have to change out all eligible lights at an intersection? (i.e. reds and greens)

While it is recognized that replacement of certain low duty cycle greens may not be as cost effective as reds, BC Hydro is interested in affecting a widespread, one time conversion to LEDs in order to achieve immediate, significant and sustainable energy savings across the province.

6. Why are all light types not eligible?

Power Smart has a mandate to deliver energy savings through demand side management initiatives. Lights which are typically illuminated for only very short periods during a traffic cycle, such as Yellows, Pedestrian "Walk" figures and most arrows, provide less energy savings and result in a poor pay-back from an energy standpoint. Municipalities may wish to purchase these lights themselves to take advantage of the other benefits that LEDs provide such as lower maintenance costs and greater visibility.

7. We would like to convert our existing separate Pedestrian "Hand / Person" fixtures to a single Combination model. Would this qualify for the Traffic Light Program?

This situation would qualify as an upgrade. The Traffic Light Program would pay the full cost of the new Combination (bi-modal) LED and recover from the customer (over 5 years) 50% of the chosen supplier's "Hand" only LED cost, plus 100% of the "upgrade" cost of the more expensive Combination unit. The customer is responsible for any modifications or additional hardware required to enable the Combination unit to fit into the existing fixtures.

8. Our current Pedestrian signals are Combination (bi-modal) types (i.e. Hand / Person in same fixture). Are these eligible for the program?

Yes. If you currently have a Combination fixture, a new LED Combination module is fully eligible under the Traffic Light program.

9. Why do you require a minimum of 90 days between orders?

This requirement has been implemented to discourage small orders, thereby minimizing administrative effort and shipping costs.

10. Why do we need to order the entire intersection from one supplier?

Again, the intent here is to reduce administrative effort and shipping costs by minimizing the number of intersection orders split between different suppliers.

11. What happens if we are not able to install the LEDs within 90 days of receipt?

You will be required to submit an explanation. If the explanation is considered to be unreasonable as determined by BC Hydro, charges up to the total cost of the LEDs for that intersection may be levied.

12. I don't understand the Intersection Load Calculator instructions and can't figure out how to use it. Where can I get help?

Contact your BC Hydro representative for assistance or contact us at 604-453-6400 or at toll free 1-866-453-6400.

13. What is the ICBC Traffic Signal Upgrade Program and how does it work with BC Hydro's Traffic Light Program?

ICBC participates on a cost-share basis with British Columbia's municipalities and the MOT to upgrade signalized intersections by:

- Increasing signal lens size from 200mm to 300mm;
- Installing signal head backboards to help reduce the effect of background distractions;
- Installing secondary and tertiary signal heads where appropriate.

Under the Power Smart Traffic Light Program, an intersection is only eligible once for LED conversion. To maximize funding potential, ICBC program upgrades should be coordinated with LED lamps installed through this program.

For more information on eligibility criteria for the ICBC program contact John Pump at 604.661.6201.

14. How long will the BC Hydro Traffic Light Program run?

BC Hydro wants to facilitate a rapid transition to LED technology, for that reason the program is scheduled to run until March 2004.