



Subject: Uninterruptible Power Supplies (UPS) at Signalized Intersections and at Traffic Control or Warning Devices Interconnected with Railways	
Date: November, 19 2008	Author: Ross Casey (Ammended: Steve Drew)
Bulletin Number: TE-2008-01 Bulletin Type: New Policy	Effective Date: Immediately
Audience	Standards Affected
All holders of the Electrical and Traffic Engineering Manual	This Technical Bulletin replaces TE-2006-01.

Background:

Traffic Signals will become inoperative when power is lost due to storms, collisions with vehicles and other incidents affecting the supply of power from the power utility. This may result in substantial delay to travelers and an increased risk of a collision. Prior to the full implementation of LED signal heads at Ministry traffic signals, it wasn't economically feasible to install Uninterruptible Power Supplies (UPS) throughout the province. LED signal heads use 90% less power than incandescent signal heads. Since LED signal heads have been installed, it is possible to provide 4 to 8 hours of three colour backup operation at intersections (times dependent on the number of signal heads) at a capital cost of approximately \$8000 per intersection. Additional maintenance costs are essentially the replacement of gel cell batteries every 5 years; however the battery replacement cost should be offset by reduced callouts of maintenance staff.

Traffic control and warning devices interconnected with railways also become inoperative when power is lost, negating the value of active turn control signs and warning signs. Again, with the implementation of LED devices, it is economically feasible to install Uninterruptible Power Supplies (UPS) at these railway interconnect locations.

Policy:

Effective immediately;

- 1.) Existing traffic signals will be prioritized by Regional Traffic Engineers and traffic signal UPS installed as annual rehabilitation funding allows.
- 2.) UPS shall be added to all new traffic signal and railway interconnected traffic control and warning device specifications

Procedure:

All new and replacement traffic signals shall include UPS and the cost shall be included in the overall traffic signal budget. All new railway interconnected traffic control and warning devices shall also include UPS and the cost shall be included in the overall budget.



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All UPS c/w cabinets shall be installed and wired by the Ministry Electrical Maintenance Contractor or Ministry Regional Electrical Personnel, as applicable

All UPS units utilized on Ministry traffic signals shall be products currently listed in the Ministry Recognized Product Book.

All existing traffic signals have been prioritized by the applicable Ministry Regional Traffic Engineers.

The UPS shall not be connected to cause the traffic controller to go into flash when batteries are depleted.

For further information see Technical Circular T-07/06 (see link below)

http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2006/t07-06.pdf

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