

BC Hydro Considers Replacing Old Streetlights With LEDs (Update)

According to this [CBC Article](#), "BC Hydro may begin installing thousands of light emitting diode (LED) street lights across the province this summer".

Hopefully they invest in good quality power converters otherwise the HF bands might get pretty noisy.

Update: I emailed our regional RAC director and here's the very informative email he sent me back:

While I can appreciate your concern, there are some considerations.

- RAC monitors this through the RABC (Radio Advisory Board of Canada) EMC Committee and has raised the issue of excessively noisy under-counter lamp power supplies.
- The relevant regulation is ICES-005 Lighting Equipment last updated in 2018 which sets limits on conducted (HF) and radiated (VHF) emissions.
- Section 4(3) of the Radio Communications Act states that:

"No person shall manufacture, import, distribute, lease, offer for sale or sell any radio apparatus, interference-causing equipment or radio-sensitive equipment for which technical standards have been established under paragraph 6(1)(a), unless the apparatus or equipment complies with those standards"

- Most problematic equipment has been sold by "back channel" suppliers. In the last couple of years for instance the sale of non-compliant equipment has been enforced (EG Home Depot non-compliant grow lamp ballasts).
- Remember LED street lights would likely replace sodium arc lights which can also be noise sources.
- I follow the RSGB EMC reports and am not aware that approved LED lighting has been identified as a problem.

My experience does not match yours.

- I have Halogen track lights which are only noisy when the contacts are dirty. I have replaced some of these with "Dollar store" LED lamps with no noticeable noise.
- I do a lot of contesting from VE7SCC which uses LED lighting almost exclusively in the shack and monitors for noise with an SDR (due to a previous "grow-op" problem). The site (Riverview Hospital) changed over to LED street lights about 18 months ago with no noticeable noise increase.
- I have just come from V3T (Belize) where the 80 through 15m noise levels were some of the lowest I have seen despite the entire resort using LED lighting as well as the Town we overlooked using LED street lamps.
- I have had noise from non-OEM computer power supplies. Any OEM supply tested has

been clean.

Nothing in the field of EMC is guaranteed and this will merit ongoing monitoring. If you can take a wide band “reference noise spectrum” now for comparison later it would be appreciated. It would be particularly useful if you turn off your house power to prove that the noise source(s) are external.

73 Keith

VE7KW