Subject: [Fwd: Energy Efficent Traffic Lights]
Date: Sat, 10 Aug 2002 14:07:00 -0700
From: Brian Platts <brian_platts@telus.net>
To: Corrie Kost <kost@triumf.ca>

Subject: Energy Efficent Traffic Lights
Date: Fri, 9 Aug 2002 21:26:42 -0700
From: "Dave Sadler" <davesadler@telus.net>
To: "Gavin Joyce" <joyceg@dnv.org>
CC: "Richard Zerr" <ZerrR@district.north-van.bc.ca>, "FONVCA" <fonvca@fonvca.org>, "Mayor and Council - DNV" <Council@district.north-van.bc.ca>

Dear Gavin Joyce: I hope the District will consider adopting these energy efficient traffic lights as future needs arise.

Yours truly, Dave Sadler

Wednesday, August 07, 2002

City of Kelowna Installs Energy-Efficient Light-Emitting Diode Traffic Lights

By City of Kelowna

The City of Kelowna will save approximately $7,800 annually with the installation of new energy-efficient light-emitting diode (LED) traffic lights at six city intersections. The LED lamps will also reduce maintenance costs and improve lighting quality.

The City expects annual savings of approximately $700 in energy costs (based on current electricity rates) and $600 in labour costs at each intersection according to Harry Thompson, Traffic and Transportation Engineer. "LED lamps consume approximately 90 per cent less energy than incandescent lamps," he notes. "For example, LED lamps at a typical traffic signal intersection use 1,200 kWh annually while incandescent lamps use 12,000 kWh."

LED lamps typically last seven years before they need to be replaced while incandescent lamps usually last only one year. As a result labour costs are expected to drop 65%. Increased reliability will also reduce emergency call-outs and traffic disruptions.

The new LED lamps, which measure 300 millimetres (12 inches) across compared to the traditional 200 millimetre (8 inch) lamps, are also easier to see. This is particularly noticeable when the sun shines at eye level; with traditional lamps it can be difficult to determine which light is actually lit. The new lamps are expected to improve motorist and pedestrian safety and reduce the number of motor vehicle accidents.

The initial capital cost to install LED lamps on new traffic signals is approximately $6,000 more per intersection than the cost to install traditional lamps, however the overall lifecycle cost is lower. As a result of partnerships with both Aquila Networks Canada and ICBC the expected payback period is between three to four years.

Aquila Networks Canada is able to offer a discount of 25% on the purchase price of LED lamps through its volume purchase program. (Aquila Networks Canada's PowerSense program is part of an energy efficiency initiative to change 90,000 signal lights in the province.) In addition, Aquila is providing approximately $2,000

initiative to change 90,000 signal lights in the province.) In addition Aquila is providing approximately $3,000 in energy rebates through the PowerSense Program.

ICBC is contributing $19,000 towards the cost of converting to the larger 300 mm. signal heads.

LED lights and the larger signal heads are being installed on new traffic light signals at the intersections of Bernard Avenue and Bertram Street, Glenmore and Yates Roads and Lakeshore Road and Richter Street. Upgrades are slated for the existing signals at Bernard Avenue and Pandosy Street, Lakeshore and Crighton Roads and Gordon Drive and KLO Road.

Work on the six intersections is expected to be complete by the end of the year.