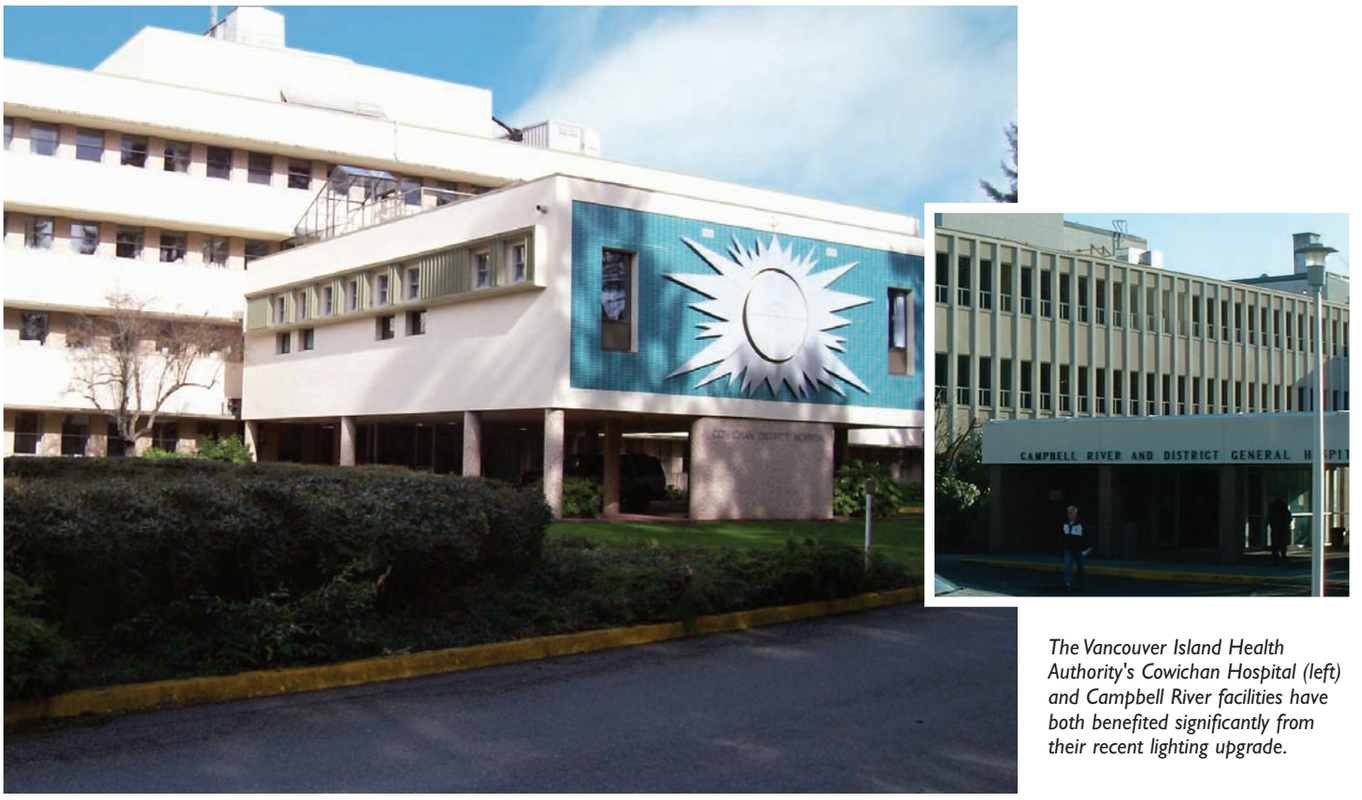

The Vancouver Island Health Authority's Cowichan Hospital (left) and Campbell River facilities have both benefited significantly from their recent lighting upgrade.

Driving a brighter future

VIHA Enhances Facilities and Reduces Energy with Lighting Upgrade

A lighter, brighter, more energy-efficient future was in store for the Vancouver Island Health Authority (VIHA) when it undertook a lighting upgrade within three of its Central and North Island facilities in mid-2006. Through a network of hospitals, clinics, centers, health units, and residential facilities, the Vancouver Island Health Authority provides health care to approximately 716,000 people on Vancouver Island, the islands of the Georgia Strait, and the mainland communities north of Powell River and south of Rivers Inlet within the Province of British Columbia. Intent on providing the highest quality care possible to patients of its 12 major hospitals and 22 extended care facilities, a modern, cost effective, and environmentally-responsible lighting system was critical for the VIHA residents served.

The three major network hospitals involved in the first phase of the project—Cowichan District Hospital, Nanaimo Regional Hospital, and Campbell River Hospital—all relied on an outdated lighting system consisting primarily of inefficient T12 fluorescent lamps driven by magnetic ballasts. Said Nancy Gunn, VIHA's Technical Services/ Energy Manager for the Central/North area, "Our main objective was to conserve energy and help sustain the environment without compromising lighting levels or quality of light."

The solution came in the form of a system involving over 13,000 highly efficient 3-foot and 4-foot ALTO® 25 Watt T8 fluorescent lamps from Philips Lighting Company driven by Optanium® electronic ballasts from Advance and sourced exclusively through Wesco Distribution. Optimized for maximum performance and energy efficiency, the system delivers outstanding light output and significantly reduces energy consumption and energy costs without risk of interference with any electronic equipment.

"The 25 Watt system was an optimal choice for this application," confirms Philips Lighting Specifier Representative Larry White. "The long-life lamps last for at least 30,000 hours and deliver superior color rendering as well as 2500 initial lumens with 97% lumen maintenance. The lamps will additionally drive 30–40% reductions in energy consumption compared to the original T12 system installed and contain significantly reduced levels of mercury as a function of Philips exclusive ALTO low-mercury technology." Adds Advance Product Manager Rachelle Nono, "The electronic ballasts driving the system are specially engineered to maximize performance of the Philips ALTO lamps. They are UL Type CC rated and also offer a host of enhanced features such as anti-striation circuitry and lamp auto-restrike capability to help ensure reliable operation and minimize maintenance concerns."

Following completion of the upgrades throughout the three facilities' collective 77,400 square meters of space in December 2006, energy consumption within the Cowichan, Nanaimo, and Campbell River facilities has been reduced by more than

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To help support the environment, VIHA's lighting upgrade incorporated a lamp recycling process.

1 million kWh annually. Through the installation of a more modern and standardized system throughout the facilities, light levels have also improved significantly, and, says VIHA's Nancy Gunn, "The staff members within the facilities have been very happy and appreciative of the change, which has definitely enhanced the work environment for both themselves and their patients." With support from utility BC Hydro's PowerSmart Partner program and Natural Resources Canada, VIHA also gained access to a variety of educational tools and energy-efficient strategies as well as matching funds and other resources to help maximize their upgrade opportunities and benefits.

Intent on disposing of its old lamps and ballasts properly so as to have the most minimal impact possible on the surrounding community, the project also involved a very important environmental aspect. The VIHA team aggressively researched its disposal options and ultimately identified a system that crushes the fluorescent bulbs and captures and neutralizes any mercury vapor released from the lamps; VIHA then shipped the lamp waste to a facility that cleans and recycles the glass. Based on its proactive handling of the lamp disposal process as well as its commitment to energy efficiency, sustainability, and environmental responsibility, VIHA was subsequently presented with a Philips environmental Awareness and Knowledge (PEAK) Award in late 2006 by Philips and Wesco in recognition of the healthcare network's positive initiative and efforts.

The lighting upgrade project was a tremendous success," concludes Nancy Gunn. "Overall, we were able to increase our lighting levels, achieve projected energy saving targets, and help support the purification of our environment." Based on the results of their initial upgrades, VIHA has launched upgrade activities at two more hospitals as well as six other health units and extended care facilities within its system. With its ongoing commitment to lighting excellence and environmental ideals, VIHA will continue to serve its community in the highest and most environmentally-responsible way possible.

Philips 25W Energy Advantage T8 Lamp featuring ALTO® Lamp Technology

- 2500 initial lumens
- Low mercury: TCLP* compliant
- Sustainable lighting solution
- 85 CRI
- 97% lumen maintenance

Advance Optanium® Electronic Ballast

- Reduces energy cost and consumption by as much as 30–40%†
- Save 7 system watts vs. standard T8 system
- Save $2.80 per fixture per year
- Energy savings based on 4000 hrs/yr at $0.10 kW/hr
- Reduce lighting installation costs (lamps, ballasts, fixtures and labor)

Project Statistics

End User	Three healthcare facilities within the Vancouver Island Health Authority (VIHA) network, located in British Columbia
Project Scope	Upgrade of old T12 fluorescent lamp technology throughout the hospitals' collective 77,400 square meters of space to a new system involving 25-watt T8 fluorescent lamps driven by electronic ballasts
Project Timetable	Initiated in Spring 2006 and completed in December 2006
Products and Suppliers Used	The project involved the installation of over 13,000 3-foot and 4-foot ALTO® 25 Watt T8 fluorescent lamps from Philips Lighting Company driven by optimized Optanium® electronic ballasts from Advance
Product Source	Wesco Distribution (Nanaimo, BC)
Reduction in Annual Energy Consumption	Over 1 million kWh
Estimated Annual Energy Cost Savings	30–40%

*The TCLP is the US EPA's Toxicity Characteristic Leading Procedure

† In relation to the hospital's previous T12 lamp and magnetic ballast technology.

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