

New ballast dimming switch developed

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U.S. scientists say they've developed a simple, cost-effective, energy-saving device designed to "harvest" daylight automatically.

The device -- The DaySwitch -- was designed at the Rensselaer Polytechnic Institute's Lighting Research Center in Troy, N.Y., as an alternative to traditional dimming ballast systems that adjust light levels by reducing lamp current.

"The DaySwitch is designed to build end-use efficiency by reducing light energy usage in commercial buildings and maintaining occupant satisfaction," said Peter Morante, director of energy programs at the LRC. "It is estimated the DaySwitch will be able to reduce lighting energy consumption by 30 percent in buildings with significant daylight contribution through windows or skylights, allowing for a payback period of approximately three years."

LRC researchers say the new switch works with all conventional fluorescent ballasts and, because of its simple circuitry, the cost to produce the device is minimal and far less expensive than traditional daylighting control systems that utilize dimming ballasts.

The U.S. Department of Energy estimates that lighting accounts for one-quarter of the total energy consumed by U.S. commercial businesses.

The initial research appears in the journal *Lighting Research & Technology*.

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