

## **Orion's new fluorescent street lighting technology outperforming in the city of Pittsburgh's test installation**

*Proprietary UL-wet-listed platform reducing streetlight energy consumption 65 percent, increasing light levels 300 percent in comparison to existing high-pressure sodium fixtures*

**MANITOWOC, Wis. — June 30, 2009** —Orion's UL-wet-listed fluorescent outdoor technology has been selected to be part of an evaluation process conducted by the city of Pittsburgh "to understand (the) potential effect on energy usage and maintenance costs, and to determine total cost of ownership," according to the city.

The evaluation process will determine the best platform to replace up to 30,000 street lights. Other technologies included in the test are LED, induction and metal halide.

An early test, conducted by the city's installation contractor, shows Orion's technology is reducing energy consumption by 65 percent and is increasing light output by an average of 300 percent under the fixture in comparison to the Steel City's existing high-pressure sodium fixtures.

"We're pleased that Pittsburgh is testing all technologies and we're confident the city will determine that Orion's technology performs better and is the lowest cost to operate over the approximate 25-year depreciation schedule of the asset," said Orion President and CEO Neal Verfueth.

Orion's outdoor lighting platform uses proven fluorescent technology enclosed in a thermal- and optical-efficient design to deliver more light output on the street for the least amount of energy input. Mounting brackets for the technology are available for all standard poles, reducing the need to replace streetlight or parking lot poles in a retrofit project.

In addition, Orion's patented reflector geometry and encapsulated design deliver high visual comfort probability (VCP) ratings compared to the other technologies being tested. VCP, which indicates the percentage of people that will find a discomfort glare acceptable, is especially important with street lighting as glare can obscure night vision for pedestrians and drivers.

Evidence obtained from Orion suggests residents may not react favorably to the bright and unnatural light delivered by induction or LED technologies. LED and induction lighting has an approximate color temperature of 5,000 kelvin, which mirrors the color of sunlight, and can be too bright, causing strain on eyes against the black, night sky. Orion's technology is

approximately 3,000 kelvin, and provides a natural, warmer light color that is easier on the eyes at night.

Orion's fluorescent lamps experience only 5 percent to 7 percent lumen depreciation during the lamps' 9-year average life. Lumen depreciation of the other technologies being tested ranges from 30 percent to 40 percent. Lumen depreciation is defined as the decrease in light output over time.

Technologies in which the light output depreciates at a fast pace will not provide adequate, safe light levels and visibility on city streets can be diminished as a result of low light levels. Using a higher-watt lamp to compensate depreciation over time negates the energy savings many municipalities seek in a lighting retrofit project.

"It's important for municipalities to carefully consider all lighting technologies to make sure they protect the taxpayer," said Kevin Crawford, Orion's vice president of business development and governmental affairs. Crawford served as mayor of Manitowoc, Wis., for 20 years before joining Orion in April.

"In times when city budgets are tight, governments need to evaluate manufacturers' claims to make sure they get the most for their money — now and in the future," Crawford said. "We look forward to working with other municipalities to provide them with proven technology that will help them reduce their operating costs during difficult economic times."

Orion's innovation and technology recently won the praise of President Barack Obama, who applauded Orion in a White House speech promoting clean energy, the creation of green collar jobs and the importance of energy efficiency.

Orion has deployed its energy management systems in 4,581 facilities across North America. Since 2001, Orion technology has displaced more than 435 megawatts, saving customers more than \$577 million and reducing indirect carbon dioxide emissions by 4.9 million tons. Orion's technology was recently internationally recognized with a Platts Global Energy Award for the single most innovative and sustainable green technology of 2008.

**Orion Energy Systems Inc. (Nasdaq: OESX)** is a leading power technology enterprise that designs, manufactures and implements energy management systems, consisting primarily of high-performance, energy-efficient lighting systems, controls and related services for commercial and industrial customers without compromising their quantity or quality of light. For more information, visit [www.oesx.com](http://www.oesx.com).

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