

Fairfax County Public Schools Retrofit Generates “Energy Savings for Kids”



When the twelfth-largest school system in the country decides to launch a major energy-savings initiative, they do not think small. The Fairfax County, Virginia, school system, located in northern Virginia, includes over 235 elementary, middle and high schools. Under a program entitled “Energy Savings for Kids,” the school system is reducing energy-related expenses across the board.

Beginning in November 2002, the school system began awarding Energy Performance Contracts in “bundles,” with each bundle including up to 20 buildings. The school selected its oldest buildings, which would produce the greatest amount of energy savings, to be the first to be retrofitted, with newer or recently renovated buildings receiving attention last.

Noresco, a national energy services company based in Westborough, Massachusetts, has been awarded contracts for retrofitting or replacing the school system’s light fixtures, improving climate controls and HVAC management and, in some

cases, replacing old single-pane windows with new double-pane windows. In total, the projects are expected to save the school system millions of dollars in energy costs. At the same time, higher-quality facilities are expected to create a better environment for teaching and learning and lead to better student performance.

William Mutscheller, the school system’s Director of Facilities Management, describes the capital improvement program as self-funding. “We are replacing inefficient and antiquated building system equipment, which reduces energy costs. Those cost savings fund the new energy-efficient systems. Once the school has paid for the improvements, continuing energy cost savings will be applied to instructional programs.”

“Through Phase 4, the school system has invested \$16.5 million in energy conservation at 60 school buildings and an operations center,” said Chris Farren of Noresco. “We estimate that the work done to date will save \$1.9 million a year in energy costs.”

In Brief:

Project:

Fairfax County Public Schools’ “Energy Savings for Kids” Program

Location:

Fairfax County, Virginia

Products Used:

Ultim8[®] T8 and T5HO ballasts

Number Installed:

95,000 fixtures retrofitted to date

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In the lighting portion of the project, Noresco is replacing older T12 magnetic ballasts and lamps with T8 electronic ballasts and lamps. This technology came into common use in



the mid-1990s and can dramatically cut electrical consumption. In most cases, the retrofit involves a simple changing of lamps and ballasts in existing fixtures. Both interior and exterior lights are being upgraded. Aged High Intensity Discharge (HID) fixtures are being replaced with new high-efficiency fluorescent fixtures or retrofitted with a higher-efficiency HID kit. HID fixtures in gymnasiums are being replaced with T5HO fluorescent fixtures.

All T8 and T5HO ballasts used in the project are Universal Lighting Technologies' products.

"This job requires a range of ballast types, from low power to normal power to high power," added Farren. "We chose Universal ballasts as one



of our equipment preferences because they offer the option of a wide range of power applications and a high degree of reliability."

At the end of Phase 4, over 95,000 lighting fixtures will have been replaced or retrofitted at 60 schools and approximately 75,000 Universal ballasts were included in the upgraded fixtures. Additional phases will be undertaken in 2005 until the program is completed.

Noresco uses an in-house group of energy engineers to provide a customized energy savings package for each school building, depending on the age, size and configuration of the building and its electrical equipment.

All work is scheduled for nights and weekends. No classroom learning or after-school community events were interrupted or rescheduled during the construction cycles.



The Fairfax project represents energy conservation on a massive scale. By making improved teaching and learning conditions their primary objective, administrators of the Fairfax County Public Schools are accomplishing their primary educational mission while saving millions of dollars and kilowatts of energy in the process.



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About Universal Lighting Technologies

Based in Nashville, Tenn., Universal Lighting Technologies has offered the most innovative selection of lighting ballasts for nearly six decades. The company manufactures ballasts for all lighting applications, with a full line of ballasts designed for exceptional performance in lamps ranging from 5 to 1500 watts. These include magnetic, electronic, and compact fluorescent, high intensity discharge, and sign. As a major manufacturer of electrical equipment, Universal Lighting Technologies plays a lead role in setting industry standards for quality and energy efficiency. The company actively participates in trade associations and assists in the development of many standards through ANSI, NEMA and IESNA. With operations and distribution worldwide, the products of Universal Lighting Technologies are marketed under the Universal®, Triad® and Signa® brand names.

Want to Know More?

Universal Lighting Technologies is focused on designing, manufacturing and distributing the industry's finest lighting ballasts and transformers. To learn more about the full line of Universal Lighting Technologies' ballasts or to request a catalog, call 1-800-BALLAST, fax your request to 615-316-5162, or visit the Web at www.universalballast.com. Universal Lighting Technologies — *Energy Intelligence in Lighting.*

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