

## Case Study

Westinghouse Savannah River Company, Aiken, South Carolina

# Westinghouse Savannah River Company achieves energy savings with lighting controls

The Westinghouse Savannah River company in Aiken, South Carolina, operates a key Department of Energy (DOE) facility focusing on national security work, economic development and technology transfer initiatives. Recently, they decided to retrofit an administrative facility with energy efficient lighting controls.

Three similar buildings on the site were already equipped with energy efficient controls, and this spurred the decision making process. The goal of the project was to turn off facility lighting when not in use. Before the retrofit, lighting was on 24 hours a day, 365 days a year, with no breaks for evenings, weekends, or even holidays.

To estimate the energy saving potential at the site, they used The Watt Stopper's IntelliTimer® Pro to calculate occupancy patterns. This allowed them to determine energy usage and savings after the retrofit was completed.

The company decided against using a digital lighting control system, and instead chose ultrasonic and passive infrared occu-

pancy sensors by The Watt Stopper. Occupancy sensors were found to be more cost effective, flexible and user friendly. In total, 86 ultrasonic ceiling-mounted occupancy sensors (W-2000A), 68 passive infrared wall-mounted occupancy sensors (WS-120), and 10 passive



infrared ceiling-mounted occupancy sensors (WPIR) were installed.

The administrative facility is a three story, 100,000 square foot building. Each floor contains two large open cubicle areas which were targeted for the controls. Ultrasonic occupancy sensors were utilized in the open cubicle areas because they provide ample coverage with the partitions that

separate the work spaces. In addition, individual offices, conference rooms, restrooms, kitchenettes and other miscellaneous spaces were controlled.

Significant energy savings were realized from choosing a system based on occupancy rather than a preset (timed) schedule to control lighting. Extra savings result from fewer maintenance and operating requirements that save time and money while allowing maintenance personnel to focus on other jobs.

An energy savings estimate of \$27,187 a year was projected, with a simple payback period of 1.05 years. (The payback figure incorporates only energy savings, although decreases in lamp replacement and maintenance costs will also be realized.)

The project was successfully completed in March, 1997. The Westinghouse Savannah River Company is very pleased with the equipment, installation, and the resulting savings in energy and capital.

The Watt Stopper®, Inc.

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