Watt Stopper Contributes to “Gold” LEED Award For California State Office Building

The Capitol East End Complex (CAEEC), in Sacramento, California is the largest “Gold” rated LEED building in the nation. Contributing to this rating are numerous energy efficient building systems and technologies, including a range of lighting controls from The Watt Stopper.

The design/build team selected 100 LS-201 daylighting controls, 200 WS-100 occupancy sensors, more than 1,000 Isole plug load controls, and a Complete Control lighting control panel system from The Watt Stopper. These controls were integrated to implement lighting control in CAEEC Block 225.

Along the building perimeters, where there are large volumes of open office spaces, LS-201 daylighting controls work in conjunction with dimming ballasts to raise and lower light levels automatically depending on the daylight contribution.

The Complete Control panel system provides automated, scheduled lighting control for interior building spaces that are grouped into 5,000 square foot zones. With Complete Control, lighting in specific areas is turned on or off when scheduled to do so, such as at the end of ordinary business hours. This control is supplemented with local low voltage override switches to provide individual occupants with the ability to hold local lighting on afterhours if desired.

WS-100 occupancy sensors control lighting in spaces such as conference rooms and boardrooms, turning lighting off when these spaces are vacant.

In addition to the lighting control, Isole plug load controls were installed in 1,200 workstations to reduce energy consumption from desktop loads. In all, 397,000 square feet of facility space benefited from the use of Watt Stopper control products.

Completed in June 2002, the building houses offices of the California Department of Education. It boasts a multitude of sustainable building construction and operation practices. Among these are raised floors with under-floor ventilation and wiring systems, building materials made of recycled content, and on-site photovoltaic electricity generation. For lighting, energy efficient products were emphasized, with T-8 indirect fluorescent fixtures. Additionally, the project team selected light interior colors to increase daylight reflection and decrease the need for electric lighting.

Because the project involved new construction, team members estimated energy savings using the Department of Energy 2 Model to calculate the entire energy consumption for the facility. On this basis, savings are estimated to be 28% above Title 24 requirements. In the project’s LEED certification, two additional points were achieved through the use of lighting controls, one in the Indoor Environmental Quality category and another in the Energy & Atmosphere category.

Willie Micene, Senior Project Manager at Rosendin Electric, Inc., notes that “Combining different types of lighting controls was significant in achieving the . . . high LEED rating. Just as importantly, the occupancy sensors, daylighting controls, and automated control are responsive to occupant needs.”

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