Project Overview

Ben Franklin Technology Partners of Northeastern Pennsylvania, Lehigh Valley, PA

Lab/Office Building 47,000 sq. ft. addition



Lutron® light and shade controls save energy at TechVentures2

Challenge

The award-winning Ben Franklin Technology Partners (BFTP) of Northeastern Pennsylvania, Lehigh Valley, PA is part of one of the nation's most successful technology-based economic development programs.

Dedicated to providing both early-stage and established companies with funding and business assistance, BFTP embraces a commitment to sustainability and energy savings in its facilities. In May 2013, the Ben Franklin TechVentures² building earned a coveted LEED Gold certification NC2.2

Their commitment has been widely recognized. Officially dedicated in October of 2011, TechVentures² was awarded first-place national honors in the U.S. Environmental Protection Agency (EPA) 2011 Energy Star Challenge.

BFTP and Spillman Farmer Architects, Bethlehem, PA, worked closely with Lutron Electronics to ensure that the light control system incorporated strategies to effectively reduce lighting electricity use as well as demand on HVAC systems, while providing a comfortable, productive working environment.

"Ben Franklin
TechVentures²
demonstrates how
Lutron light controls
save energy while
enhancing the
workplace and
supporting sustainable
building design."

Tom Ike, Vice President, Global Sales, Lutron





Energy-saving strategies





Personal control





Occupant sensing





Daylight sensing





Automatic shade control

Solution

Lutron EcoSystem digitally addressable dimming ballasts communicate with daylight sensors to automatically adjust electric lights in response to available daylight. To further minimize glare and thermal heat gain, Lutron Sivoia QS automated shades with Hyperion solar-adaptive software are installed on every window. This shading strategy can reduce HVAC demand by 10 - 30%*.

Occupancy/vacancy sensors and personal controls are installed throughout the space to ensure that lights are not left on when an area is vacant, but tenants still have control over the lights in their space.

Finally, a Lutron Quantum Total Light Management system provides centralized control of all lights and shades, and utilizes GreenGlance® software to evaluate, monitor, and communicate energy use.

Results

In addition to taking first place in the 2011 Energy Star Challenge, the facility was also named Pennsylvania Economic Development Association Project of the Year in October of 2011.

A factor in achieving LEED Gold certification, the Lutron lighting control system was able to help the facility earn credits in several categories including—

- Optimize Energy Performance
- Controllability of Systems
- Daylighting and Views

Estimates indicate that TechVentures² is approximately 28% more efficient when compared with a baseline building performance rating. Lutron controls contribute a significant percentage of those savings.

BFTP President and CEO, R. Chadwick Paul says, "By choosing a Lutron light control system, we are contributing to the responsible use of energy and we are lowering our electricity bills. Over the long haul, the savings will enable us to help more early-stage clients 'keep the lights on,' and support job creation in Pennsylvania."

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