

Eaton Tapped To Contribute To LEED Certification Of GBA Building

Green Products for Buildings

Environmental stewardship, innovation and leadership are becoming increasingly important as we take steps to create a sustainable environment for future generations by going green. The impact structures have on our daily lives makes this particularly important – both in the construction of new buildings and in major renovations of older ones.

Eaton Corporation offers a broad range of energy-efficient and environmentally-friendly electrical solutions that can help a building go green and qualify for Leadership in Energy and Environmental Design (LEED®) credits through the U.S. Green Buildings Council (USGBC®). In fact, Eaton products have the potential to collectively contribute up to 27 of the 69 total credit points towards LEED certification (LEED-NC Version 2.2). The Green Building Alliance selected several Eaton products in their own successful initiative to obtain LEED Gold certification for renovation of existing office space. The following describes the project, the products and how they will contribute to LEED points.



The Pow-R-Command PRC2000 system, shown with optional LCD programming display and keypad, can be used as a stand-alone panelboard or networked as a system. PRC2000 offers a web-based application that allows facilities to remotely control their lighting systems from their desks or anywhere around the world.

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Background

The Green Building Alliance (GBA), a non-profit organization devoted to improving the health, economic, environmental and community impacts of new and existing developments in

western Pennsylvania through the integration of green building practices, decided to relocate their headquarters to Pittsburgh's historic South Side. Thanks to the GBA's efforts, many of that

area's trademark buildings: historic structures, warehouses, banking facilities, university buildings, etc, are becoming the first of their kind to be LEED certified.

GBA's own relocation to the South Side was meant to showcase two things: regional green building products and practices, as well as how to make an older building green. As part of this mission, the GBA wanted to integrate as many local organizations' products as possible to contribute to the LEED certification of their new space inside an old building.

Challenge

Key to the GBA was incorporating products in the renovation that would help to enhance energy efficiency. "Our ultimate vision for this space was that it would not only be our new headquarters and an example of how old buildings can be made more energy efficient, but that it would become a first-stop shop for green building products and going green in our region," said Rebecca Flora, executive director of the Green Building Alliance and chairman of the Board of the U.S. Green Building Council. "With this in mind, we realized that we would need to utilize products that can help to enhance our energy efficiency and contribute to our LEED certification. This is when we turned to Eaton for help."

Solution

Taking into consideration the mission and goals of the GBA, Eaton offered three product solutions that can help control lighting, measure energy usage, and ultimately help to reduce energy consumption in the new space on the South Side.

Among these products were the Pow-R-Command™ lighting control system (PRC 2000), Power Xpert Meter (IQ 250), and the Power Xpert Gateway (PXG 400).



GBA's new South Side space.

While visitors to the GBA may not always remember to turn off the lights, Eaton's Pow-R-Command lighting control will. The PRC 2000 lighting control system automatically turns lights on and off as needed and includes daylight harvesting capabilities to maximize energy performance - reducing lighting energy use by as much as 30%, while maintaining the comfort and well-being of building occupants.

The second product that Eaton supplied is the Power Xpert Meter (IQ 250). This electronic power meter provides accurate real-time power system values, captures waveforms and system events, graphically displaying this data through Eaton's Power Xpert Gateway for additional and more detailed energy evaluation. Typically used for utility and commercial metering, the IQ 250 will measure and record energy uses (lighting, plug load, HVAC, etc.) within the GBA space, enhancing energy efficiency.

Finally, to provide the framework to unify the entire power system at the South Side site, Eaton offered the GBA its Power Xpert Gateway

(PXG 400). It not only has the ability to provide real-time monitoring of equipment, but it also has the ability to connect communication and management systems for a holistic approach to the power system. The PXG 400 gave the GBA a web-enabled measurement tool so they can demonstrate the energy efficiency of their building operations and show visitors just how "green" they are.

Results

Once renovations are complete, the GBA will seek LEED for Commercial Interiors certification and Eaton's products will contribute to LEED credit points in at least three areas:

- EA Credit 1.2 - Optimize Energy Performance, Lighting Controls;
- EA Credit 3 - Energy Use, Measurement & Payment Accountability;
- IEQ Credit 6.1 - Controllability of Systems, Lighting.

The region's best green building practices and product offerings – including several Eaton products – will be showcased in the GBA's new South Side space.