

Eaton® can help your building go green



Going green—using natural resources wisely while reducing the impact of human activity on the environment—means more than just being environmentally responsible. It's good business, too.

Buildings play a key role in our impact on the environment. According to the U.S. Green Building Council (USGBC®), building operations account for 65 percent of the electrical

energy used in the United States, which can really affect your bottom line.

Take a look at some ways Eaton's PowerChain Management® portfolio of Cutler-Hammer® and Powerware® products, services and information management tools can help your building go green. Any of these solutions may help buildings qualify for LEED® credits through the USGBC.

The Eaton difference: Inside the green building

Lighting controls
Eaton's industry-leading Pow-R-Command™ lighting control systems turn off the lights when a space is empty, and reduce artificial lighting when natural light is strong. These systems typically reduce lighting energy consumption from 10 to 30 percent.

Busway
Building an electrical distribution system with busway saves energy, compared to using cables. Busway sized to carry the same current as cable will have lower losses and it can also be reconfigured easily as needs change. Busway uses less copper and steel than cable and conduit, and wastes less material because it can be built to exact length.

Automatic transfer switches
Automatic transfer switches are reliable and compact assemblies that transfer essential loads and electrical distribution systems from utility power to green alternative energy generating sources, such as wind turbines, solar photovoltaic panels and fuel cells.

Power Xpert® software and meters
Power Xpert meters detect and analyze potentially costly power quality problems, as well as monitor energy consumption and efficiency in real time throughout a building. Power Xpert software aggregates information into understandable charts and graphs that allow users to easily identify energy-saving opportunities.

Energy audits
Eaton engineers find wasteful patterns in total consumption of energy from all sources—electricity, gas, steam and compressed air. Then they recommend more efficient solutions that shrink energy use. Coordination studies can optimize electrical system protection with the most efficient use of resources.

Circuit breakers
Circuit breakers save energy compared to fused disconnects because they have less watts loss for like ratings. And circuit breakers can be reset after they trip, while fuses must be replaced and discarded in compliance with special disposal procedures.

Uninterruptible Power Systems (UPS)
Eaton's UPSs achieve higher efficiency than traditional UPSs—and at typical low loading levels result in 50% less power loss. The Powerware® 9395 UPS and Powerware BladeUPS® each provide revolutionary technology that delivers reduced energy costs and increased energy efficiency. Our single phase UPSs meet RoHS standards.

Medium Voltage (MV) Switchgear
Eaton's MV switchgear designs use environmentally friendly choices for insulation, avoiding sulfur hexafluoride (SF₆), an extremely harmful greenhouse gas, 20,000 times more potent than carbon dioxide (CO₂).

Power factor correction capacitors and filters
Capacitors and filters lower energy costs by supplying reactive power to loads such as HVAC and elevators. This reduces energy loss, minimizes greenhouse gas emissions, decreases energy consumption and extends equipment life through improved power quality.

Variable Frequency Drives and Soft Starters
A variable frequency drive (VFD) adjusts a motor's speed to closely match output requirements, resulting in typical energy savings of 10 to 50 percent. Soft starters lower the demands on a motor during start-up, conserving energy and extending the life of the mechanical system.

Paralleling switchgear
Paralleling switchgear manages the critical transition from utility power to on-site power sources. This makes it practical to use Combined Heat and Power (CHP) systems that take advantage of otherwise wasted heat energy or on-site power sources run on alternative biomass fuels.

ENERGY STAR® and harmonic mitigating transformers
Eaton's transformers reduce harmonic currents that disrupt the flow of useful electricity in a circuit. Fewer harmonics means more efficient energy consumption overall.

Refurbishing services
Eaton service engineers can refurbish and recondition existing equipment to extend its useful life. In seven years, Eaton has preserved more than 200,000 pounds of copper and steel by reconditioning breakers instead of replacing them.

Prefabricated product assemblies
Eaton uses prefabricated, modular designs that reduce packaging waste and save space when they're installed. Integrated power assemblies, for example, are complete installations that are preassembled and tested before they're shipped.

Integrated Facilities Systems™ (IFS)
An IFS reduces both floor space and material needed for power systems over traditional installations. The space-saving switchboard structure requires 40% less electrical room space, resulting in more room for tenants or less site disturbance. By using less copper and steel, IFS delivers a sustainable solution.



Eaton: A bigger impact on the marketplace, a smaller footprint on the world

Eaton believes that companies everywhere must answer the same question over the next decade: How can we sustain our growth, both profitably and responsibly? And we believe tomorrow's leaders will be the companies that master sustainable growth.

Eaton's commitment to sustainability is long-standing. We are a member of the U.S. Green Building Council, the Green Grid and the Green Suppliers Network, and we participate in the international Carbon Disclosure Project (CDP). As a member of the Business Roundtable's Climate RESOLVE initiative, we have pledged

to reduce our greenhouse gas emissions intensity by 18 percent (adjusted for sales) by 2012. And, we published our first public sustainability report sharing our progress toward our sustainability goals in 2006.

Our operations put our beliefs about sustainability into practice. In 2007, we will begin measuring the performance of all of our facilities against our Global Management System of Environment, Safety, Security and Health (MESH), a unified system for managing our environmental, safety and health initiatives across the globe. We pursue a wide

range of initiatives to improve our efficiency, conserve resources and protect the health and safety of our employees. And we're achieving results. Our new plant in Shandong province, China, has been praised as a model of environmentally conscious development. An energy conservation program at our truck transmission plant in San Luis Potosi, Mexico, reduced energy consumption by 40 percent. Over the past two years, our valve manufacturing plant in Searcy, Arkansas, has shrunk its generated waste by 70 percent. And we strive to help our customers go green. Our automobile engine superchargers help

automakers use smaller, cleaner engines that deliver the horsepower consumers crave, plus the fuel efficiency they desire. Our Hybrid Power Systems boost fuel economy and reduce emissions in trucks and buses.

Eaton can help you operate a building in ways that are both smart and sustainable. To learn more, visit www.eaton.com/greenbuildings.

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