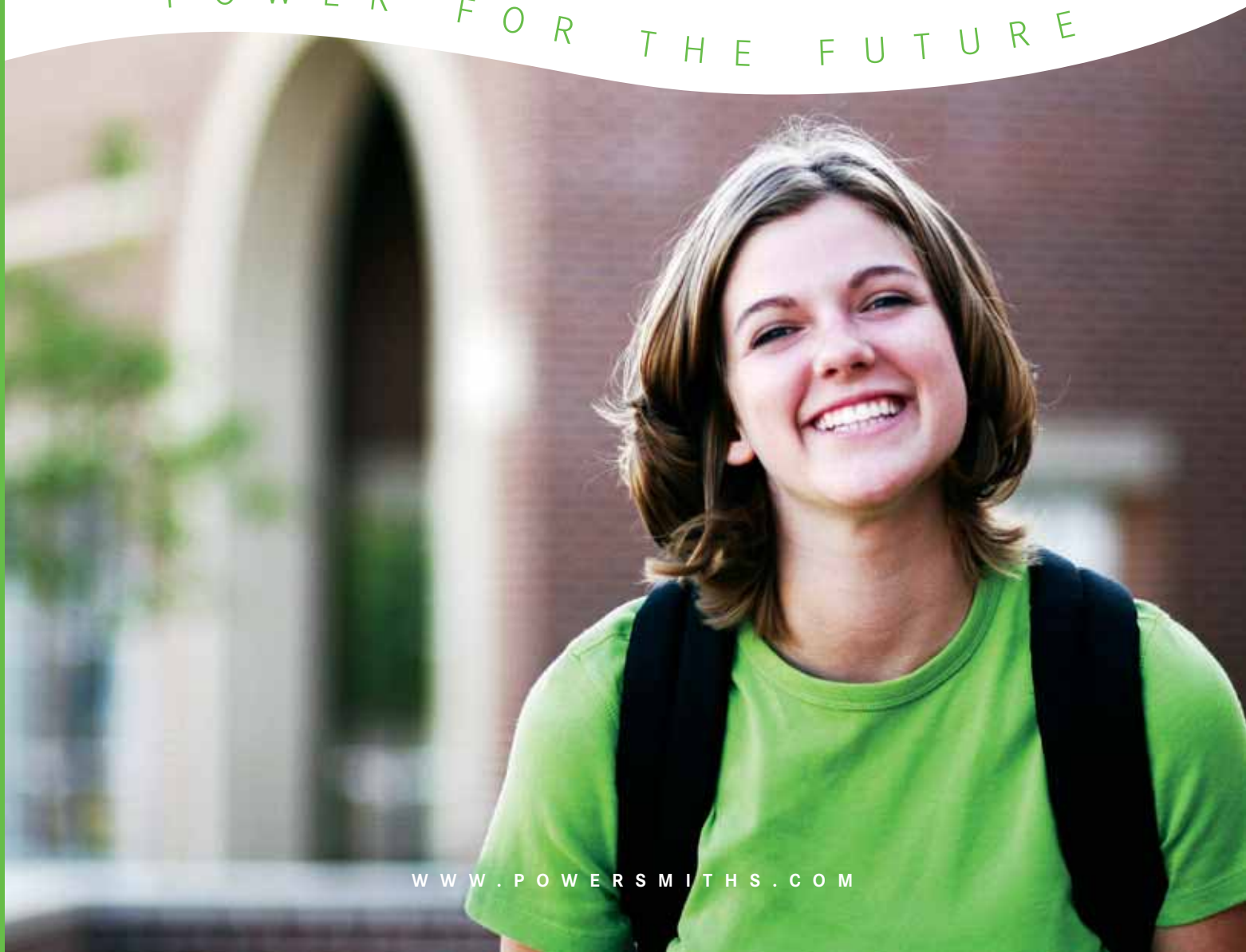
POWERSMITHS

Power for the Future *for the* High Performance Campus

POWER FOR THE FUTURE



WWW.POWERSMITHS.COM

You are committed to reducing the environmental footprint of your campus and enhancing learning by modeling your campus on high performance principles.

We are committed to helping you to meet your goals by providing you with the high performance electrical distribution systems that reduce electricity waste, lower operating costs and help to lower greenhouse gas emissions.

You are committed to helping to bring about a sustainable future for the generations to come.

We are committed to helping you by offering you tools and support for your sustainability education programs

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You are committed to ensuring that the initiatives and programs you undertake are successfully achieving their desired outcomes.

We are committed to helping you to measure the success of your energy management programs by supplying you with advanced energy monitoring and metering systems.

For more than a decade, Powersmiths has focused its research and development efforts toward the achievement of greater efficiency and improved reliability of building electrical systems.

Today on college and university campuses across North America, Powersmiths products:

- Reduce electricity waste
- Lower operating costs
- Improve power quality and reliability in high intensity electrical environments
- Contribute toward the attainment of LEED® certification
- Teach sustainability principles
- Reduce campus CO_2 emissions to slow climate change

As active participants in Association for the Advancement of Sustainability in Higher Education (AASHE), the Green Building Council, AAPA, and NJHEPS, Powersmiths supports and engages with university and college leaders to ensure that our product development efforts meet the needs of today's and tomorrow's campuses.

Powersmiths takes its commitment to sustainability seriously and has earned the prestigious ISO 14001 certification for our environmental management system.

By optimizing for lowest lifecycle cost, maximizing efficiency and minimizing environmental impacts and packaging, Powersmiths products align with your Green Purchasing Policies.

Included among the colleges and universities we have served are:

Arkansas Tech University
Arkansas University
Case Western Reserve University
Cochise College
College of the Desert
Denver University
Duke University
Henderson University
Kellogg Science and Tech Center
Laney College
Maryland Tech
McMaster University
Memorial University
Northwestern University
North Dakota State University
Pace University
Scottsdale College
Simon Fraser University
Sonoma University
South Texas Law College
Surry Community College
Texas A & M
Tomball College
University of Arizona
University of British Columbia
University of Calgary
University of California
University of Massachusetts
University of Michigan
University of North Carolina
University of South Carolina
University of Texas
University of the South
University of Toronto
Westchester College

ISO 9001
ISO 14001

ENERGY STAR PARTNER

U.S. GREEN BUILDING COUNCIL MEMBER

NJHEPS

AASHE

Powersmiths' Whole System Approach Builds High Performance into Your Campus

Powersmiths Supports the Sustainable Campus

Campus leaders recognize the important role they can play in the movement towards sustainability. Throughout North America the leading colleges and universities are focused on building and retrofitting campuses to model sustainability principles and teach sustainability thinking.

Powersmiths belongs in high performance buildings. With solutions that reduce electricity waste and ensure high quality reliable power, Powersmiths helps you meet the energy conservation, safety and security goals that are key criteria in high performance certification programs, such as LEED® and Energy Star®.

Windows on the World™ (WOW) our interactive learning system supports education for sustainability, another high performance criteria.

Whether you are working towards high performance certification, or just doing the right thing, Powersmiths green electrical solutions help you achieve your goals.

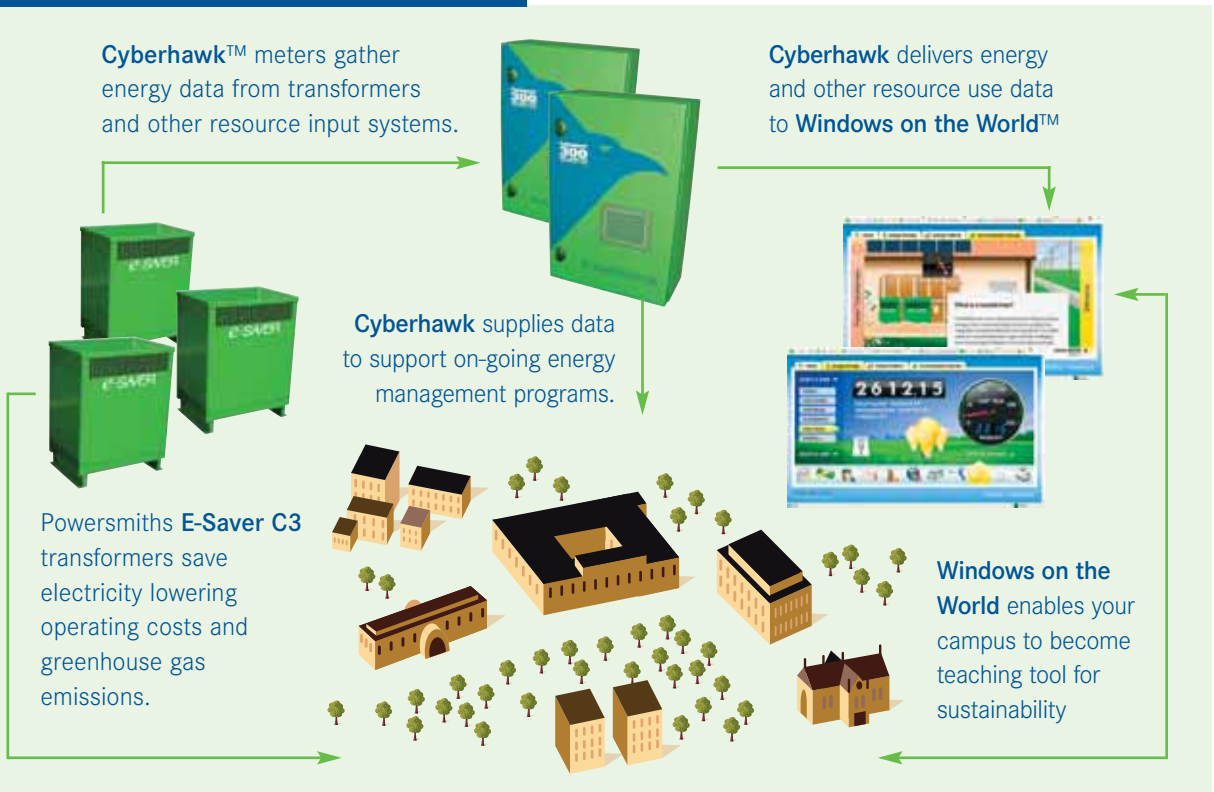
Energy Conservation - an Economic and Environmental Imperative

Next to salaries, energy costs are the greatest campus expense. Whether you are generating electricity with renewable resources or using traditional power, conservation makes sense. Powersmiths' integrated approach to campus electrical distribution systems includes:

- High efficiency electrical transformers that reduce electricity waste and noise
- Energy monitoring and management systems to help you identify opportunities for further savings
- Power protection equipment to help ensure clean reliable power
- Interactive learning systems for sustainability education

When you build electrical efficiency into your buildings you free up money for other important initiatives. You also help build a healthier community by reducing the adverse environmental impacts of electricity generation, including smog and greenhouse gas emissions.

POWERSMITHS' INTEGRATED APPROACH TO POWER FOR THE FUTURE ON CAMPUS



Embed Decades of Savings with Powersmiths Green Transformers

Reliable electrical power remains a key resource on a high performance campus. How you choose to distribute power in your campus buildings will impact your campus electrical bills for decades. Transformers distribute power throughout your building and are a fundamental component of the electrical system. Because they are normally in service for twenty five to forty years, sacrificing performance to buy the lowest first-cost transformer can cost your university tens of thousands of dollars over the lifetime of the transformer.

Powersmiths E-Saver-C3 transformer is The Green Transformer™ manufactured in an advanced ISO14001 certified facility. It exceeds regulated efficiency standards and will reduce electricity waste and lower operating costs in your school on an on-going basis.

The example below demonstrates the significant electricity savings that the E-Saver C3 can deliver over its life cycle. In this case, thirty-two transformers were required to support a typical two hundred and eighty thousand square foot campus academic building.

Transformer Operating Cost	Annual Cost	Life Cycle Operating Cost and Savings	
SCENARIO:		25 years	40 years
Standard Transformers	$ 51,927	$1,298,185	$2,077,096
Powersmiths Transformers	$ 11,720	$ 293,008	$ 468,814
Savings with Powersmiths	**$40,207**	**$1,005,177**	**$1,608,282**

Annual cost is based on current 8¢/kWh. Projected Life cycle savings factor in a 3% annual increase in electricity rates.

Powersmiths E-Saver C3's deliver more than $40,000 in electrical savings annually. Over their life cycle the E-Saver C3's will save the university more than one million dollars. And there are positive environmental impacts. By lowering electricity demand, the university will prevent 309 tons of carbon dioxide from entering the atmosphere annually.

Annual Reduction GHGs	Equivalence
309 tons of CO_2	57.75 acres of trees
1003 tons of coal	annual emissions from 41 cars
2426 kgs. SO_2 &1044 kgs. NO_2	42 homes heated

Support for Effective Power Management

Reducing energy consumption is one of the key criteria for high performance. Measuring and validating the effectiveness of your energy infrastructure on an on-going basis ensures that your goals continue to be met.

LEED® and other high performance certification programs require building commissioning and also offer an additional credit for on-going performance validation. Powersmiths Cyberhawk™ energy meters and monitors facilitate commissioning and validation by providing a broad spectrum of power quality and consumption data available anytime, anywhere over the Web. Cyberhawk also supports education for sustainability systems such as Powersmiths Window on the World™. For universities and colleges, we recommend the Cyberhawk 300 three-in-one meter and or the Cyberhawk MPC which offers monitoring protection and control of your electrical system.

GREEN START INITIATIVE for High Performance Retrofitting

Powersmiths' Green Start Initiative provides colleges and universities with consultation and support to develop pilot projects that will identify the energy savings opportunities in their buildings.

Using advanced efficiency and power measurement tools, our technical experts will carry out an on site assessment of your building's power use and current efficiency levels. With your approval, Powersmiths will replace a selected transformer with a Powersmiths high efficiency E-Saver C3 transformer. Our technical representative will then return to your site to collect energy data. Using before and after data, our team will prepare a report that identifies the energy and environmental savings of the E-Saver C3 transformer and extrapolates the building wide savings potential.

Contact Powersmiths to find out how your campus can participate.

Greening Campus Data Centers

Campus data centers are high intensity electrical consumers. As such, it only makes sense to ensure that they are supported by the most efficient transformers available.

Powersmiths C3 transformers and Energy Stations (PDU's) improve power quality and can save thousands of dollars and eliminate tons of greenhouse gas emissions annually, by reducing direct electricity waste and lowering cooling demand in college data centers.

Powersmiths Energy Station™ C3 PDU and C3 transformers, lower operating costs and reduce the environmental footprint of college data centers.

Educating for a Sustainable Future

WOW™ Brings Your Building to Life

Educators understand the lasting impact that they can make through education for sustainability. Powersmiths Windows on the World (WOW), interactive learning system supports your education for sustainability programs.

Using compelling web and touch screen interfaces, WOW helps students to learn about the relationship between their campus buildings and the environment and demonstrates the role of personal choice on resource use.

Display WOW on a large LCD touch screen display, a standalone kiosk and/or network accessible web pages.

Power to See Change

Using intuitive animated diagrams and dynamic graphs and gauges, WOW makes the invisible flows of energy and other resources in your building visible and comprehensible. Using WOW building stakeholders can:

- Learn how the green features of your buildings work
- Find out how the sustainable technologies on campus translate into tangible environmental benefits
- Track and compare the contribution of various renewable energy sources and conservation technologies in your buildings
- Discover how your campus facility achieved LEED®, LEED-EB or Energy Star® high performance certification

View real-time data of building energy and resource use and its equivalencies in environmental emissions

To find out more about how Powersmiths can support your sustainable campus goals, contact us at:

PowerForTheFuture@powersmiths.com or call (800) 747-9627

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