

POWERSMITHS

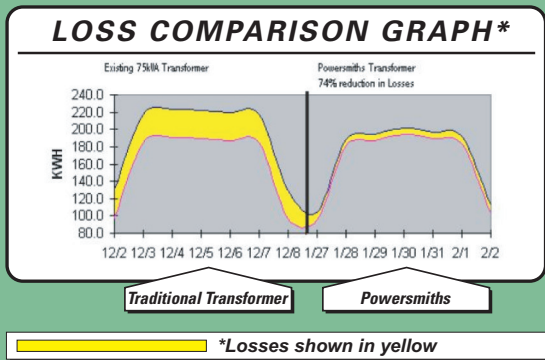
Power for the Future



As a proud member of the **United States Green Building Council**, we applaud their mission, and realize that we have the same goals. Powersmiths' founders started this business in the same year the **USGBC** was founded, proving that we Powersmiths are not merely jumping on the green building bandwagon, but rather continuing an ecological responsibility we have felt for a decade. Powersmiths is committed to the development of new products, which address all the imperatives: **Energy Savings, Power Quality, plus Environmental Protection and Recovery.**

Powersmiths provides a range of **state-of-the-art technologies** incorporated into modern transformers, sophisticated harmonic conditioners and power stations, operating at **ultra-high efficiency**, (50%-70% less losses than traditional equipment). In comparison, the traditional approach loses substantial efficiency when computers and other high tech electrical equipment are connected. That lower efficiency costs hundreds of thousands of dollars more over the life of a typical building.

The Loss Comparison Graph below shows the considerable difference between the losses in a non Powersmiths equipped building on the left, and one with Powersmiths equipment on the right. The graph on the left demonstrates lower Power Quality and a higher operating cost.



LEED is more than achieving points.

It's about doing the right thing. Few if any products will remain functional longer than the transformer you select. It's not uncommon to find 50 or 60 year old transformers still in service. While no one can predict what an electrical system will look like 50 years from now, it's a pretty safe bet that our dependency on clean power will not decrease.

"Explaining the need for LEED™

Questions are often asked as the value of obtaining LEED™ certification for a project and why LEED certification is important. After all, the argument goes, if a building is "green," isn't that its own reward? To some extent, this is true, but in many ways it is not.

Green buildings produce many returns to the building owner and/or occupants that do not depend upon the perception of the outside world. Such returns can include **improved indoor environmental quality, reduced energy usage, increased productivity, reduce absenteeism and reduced impact on the building's external environment.** These translate into improved performance of the building and its occupants, and benefit the building owners or occupants directly. However, there are also a number of aspects of green buildings that depend upon the perceptions of the market place. These can only be realized if the building can be demonstrated to have been designed and constructed to meet certain green building standards, and certification under the LEED rating systems in the one way to ensure this.

There are several classes of benefits that you get with LEED that you don't get without it:

- Third party validation of green features.
- Enforcement of complete implementation of designed green features
- Third-part rating of degree of sustainability.
- Benefit of LEED "brand" association.
- Incentives from Public Agencies

Some of these benefits are important to some building owners, and some to others."

Description	LEED Section	Powersmiths Contribution
<p>PREREQUISITE 1 <i>Fundamental Building Commissioning</i></p> <p>CREDIT 5 <i>Measurement & Verification (1 Point)</i></p>	<p><i>Verify and ensure that fundamental building elements and systems are designed, installed and calibrated to operate as intended</i></p> <p><i>Provide for the ongoing accountability and optimization of building energy and water consumption performance over time.</i></p>	<p><i>Powersmiths SMART1 metering port provides quick, easy access to transformer energy efficiency and power quality data.</i></p> <p><i>CYBERHAWK, Powersmiths' innovative metering system captures important energy and power quality data utilized by Energy Managers and facility maintenance staff for accountability and preventative maintenance. The captured data maybe reported in hard copy or presented electronically via a web-enabled reporting system.</i></p>
<p>PREREQUISITE 2 <i>Minimum Energy Performance</i></p> <p>CREDIT 1 <i>Optimize Energy Performance (2-10 Points)</i></p>	<p><i>Establish the minimum level of energy efficiency for the base building and systems – meet ASHRAE 90.1 or local code, whichever is more stringent.</i></p> <p><i>Achieve increasing levels of energy performance above the prerequisite ASHRAE 90.1 standard to reduce environmental impacts associated with excessive energy use, as demonstrated by whole building simulation using the Energy Cost Budget Method.</i></p>	<p><i>Powersmiths transformers reduce losses by as much as 50%, surpassing ASHRAE 90.1 section 5.4.2 by a large margin.</i></p> <p><i>Powersmiths' Energy Savings & Payback (ESP) calculator makes it easy to document energy savings associated with different approaches and show comparative results.</i></p>
<p>CREDIT 5: <i>Materials and Resources (1 Point)</i></p>	<p><i>Increase demand for building products that are manufactured locally, reducing the environmental impacts resulting from transportation, and supporting the local economy.</i></p>	<p><i>Powersmiths products qualify for projects that are within the 500 mile radius of Powersmiths ISO 9001 AND 14001 certified Facility located in Brampton Ontario.</i></p>
<p>Innovation & Design Process (1 Point)</p>	<p><i>To provide building project and facility improvement teams the opportunity to be awarded points for exceptional performance above requirements set by LEED and/or innovative performance in green building categories not specifically addressed by LEED.</i></p>	<p><i>Based on research within the USGBC web site and discussions with the people from USGBC Powersmiths feels that the Smart One option could qualify under this section.</i></p>