PERMANENT LINK TESTING
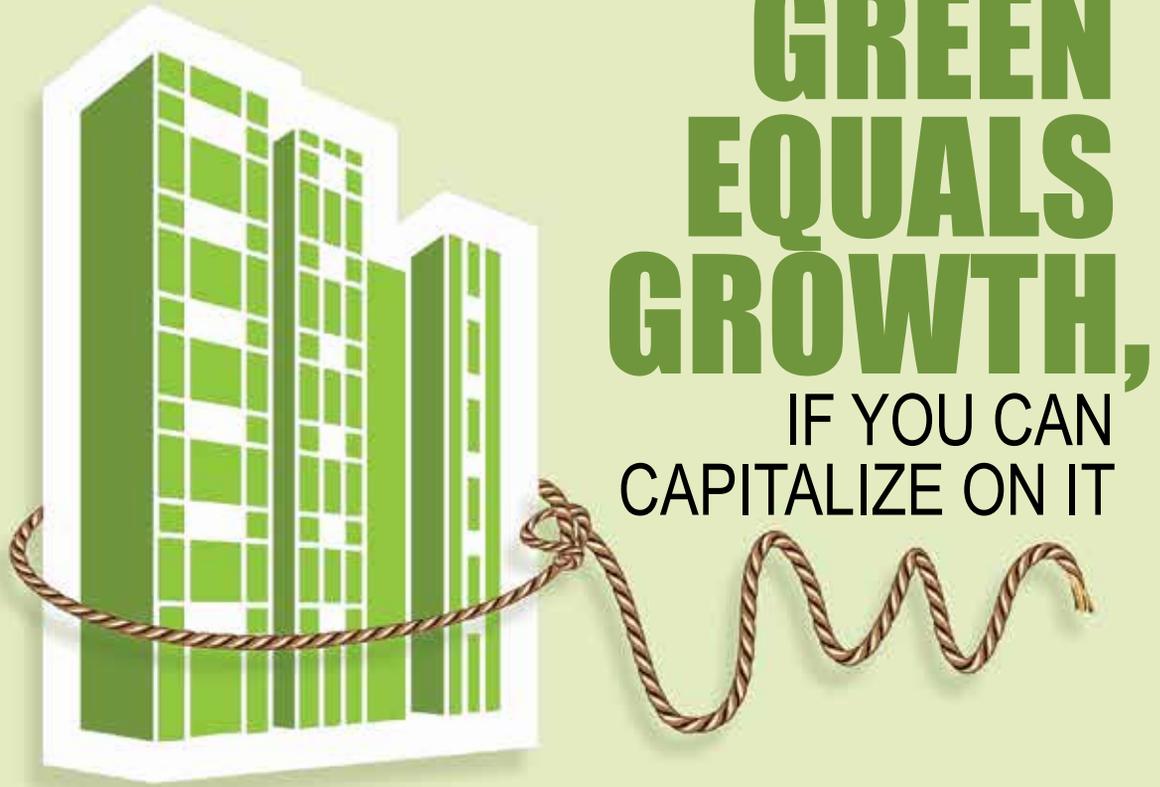
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By Peter Bordonaro

For RCDDs, understanding green concepts and how the RCDD designation can assist companies in meeting their sustainability goals is becoming a key to business success.

GREEN EQUALS GROWTH,
IF YOU CAN CAPITALIZE ON IT

While concepts like *sustainability*, *Leadership in Energy and Environmental Design (LEED)* and *green* continue to grab customers' attention, some believe that these are merely buzzwords that do little more than generate positive public relations. However, perceptions are shifting, and enterprises and installers are realizing that the value of sustainability to the environment and the bottom line can be measured in quantifiable terms.

Consider these trends:

- According to the U.S. Green Building Council (USGBC), the number of commercial projects in the LEED program, launched in 2000, has grown to nearly 60,000 globally. More than 2.8 billion square feet of building space were LEED-certified as of Jan. 1, 2014.
- More professionals are adding LEED Accredited Professional (AP) after their names in addition to professional affiliations such as RCDD, AIA, CSI, or PE. A LEED AP, of which there are now more than 50,000, has passed a test that covers green building knowledge in general and LEED specifically.
- Power usage effectiveness (PUE) has become a business driver for information technology (IT) executives looking for ways to lower operating expenses and contribute to corporate sustainability directives.
- In an Ernst & Young/GreenBiz Group survey, respondents cited cost reductions (74 percent) and managing risks (61 percent) as two of the key drivers of their company's sustainability agenda. The CFOs of 65 percent of respondents have become involved in sustainability.
- By 2016, an estimated 48 percent of new nonresidential construction by value will be green, equating to a $120-$145 billion opportunity (see Figure 1) *(Source: McGraw-Hill's 2013 Green Outlook Report).*

▸ More enterprises have established sustainability policies and request for proposals (RFPs) that are being created by LEED APs and require bidders to address how they can assist customers in meeting sustainability requirements.

What This Means to Telecommunications Infrastructure Professionals

As these trends indicate, there is a great deal of momentum behind and focus on sustainability. Explaining and citing examples of how IT can assist its organization in meeting sustainability compliance goals can provide a competitive advantage that enables a professional to secure more business. For RCDDs, understanding green concepts and how the RCDD designation can assist companies in meeting their sustainability goals is becoming a key to business success.

Knowing the answers to the following questions may help to leverage knowledge of green concepts to assist organizations or customers.

STEP 1
Does the company or project have a sustainability initiative?

To find out, check the RFQ, which might state this as goal, or visit the company's website. Many publically traded companies in key industries like education and health care highlight their sustainability initiative and goals. In today's competitive environment, this knowledge could be a trump card.
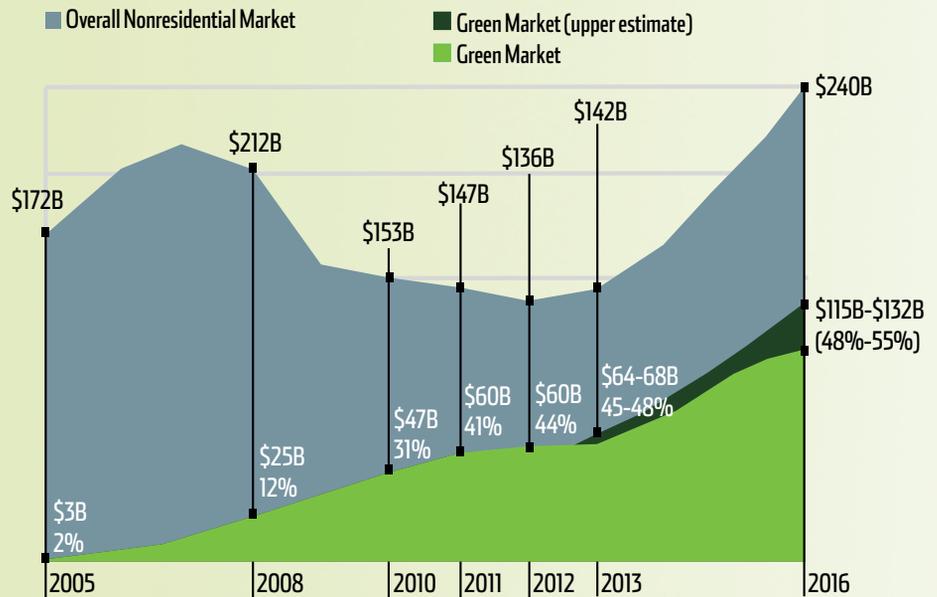
NONRESIDENTIAL
Green Building Market (2005-2016)

- ■ Overall Nonresidential Market
- ■ Green Market (upper estimate)
- ■ Green Market

FIGURE 1: By 2016, an estimated 48 percent of new nonresidential construction by value will be green.

STEP 2
How can a professional assist the organization in accomplishing its sustainability goals?

Customers' sustainability goals can range from recycling toner cartridges to determining how close a new building is to a commuter rail station, which can earn points under the LEED New Construction point system. Although many of the categories are not addressable by IT professionals, a few key aspects could enable someone to contribute.

For example, diverting construction site waste from a landfill and recycling it is one way to earn up to a point in the LEED Materials and Resources section. On a recent data center project, for example, 12,857 pounds of

cardboard and 23,073 pounds of wood products were diverted from the work site and recycled. In another project, installers and IT professionals minimized the cardboard and electrostatic discharge entering data centers by kitting and assembly off-site. The customer earned LEED points from the recycling statistics, while the installer significantly reduced installation time with the preassembled racks and slashed nonproductive labor that would have been spent removing packing waste from the work site.

The LEED Point System

The USGBC's LEED system is a green building rating program, with 1.5 million square feet of building space certified to LEED

PUE: Power Usage Effectiveness

Building Load/Demand from grid

TOTAL FACILITY ENERGY

POWER
- Switchgear
- UPS
- Battery Backup
- Etc.

COOLING
- Chillers
- CRACs
- Etc.

IT EQUIPMENT ENERGY

IT LOAD
- Servers
- Storage
- Telco Equipment
- Etc.

$$PUE = \frac{\text{TOTAL FACILITY ENERGY}}{\text{IT EQUIPMENT ENERGY}}$$
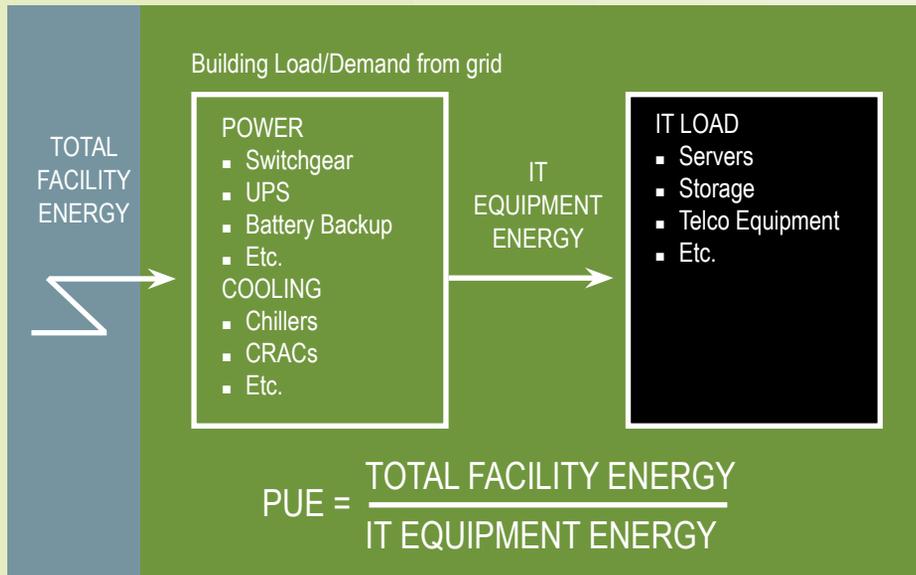
FIGURE 2: PUE is an end-user tool that helps boost energy efficiency in data center operations.

every day. The points system varies by version (LEED version 4 was announced in November 2013), but all include several subcategories. These subcategories have specific criteria and technical requirements to earn points toward certification. One version offers four levels of certification that are determined by the number of credit points achieved in defined categories. (LEED Certified is 26–32 points; LEED Silver is 33–38 points; LEED Gold is 39–51 points; and LEED Platinum is 52–69 points.)

The categories and available points are as follows:

- Sustainable Sites: 14 possible points.
- Water Efficiency: 5 possible points.
- Energy & Atmosphere: 17 possible points.
- Materials & Resources: 13 possible points.
- Indoor Environmental Quality: 15 possible points.
- Innovation & Design Process: 5 possible points.

Managing Energy Usage through PUE

Another area that impacts green in both an environmental and monetary sense is energy management. PUE is the industry-preferred metric for measuring infrastructure energy efficiency for data centers (see Figure 2). Developed by The Green Grid Association, a nonprofit, open industry consortium, the PUE metric is an end-user tool that helps boost energy efficiency in data center operations.

PUE can be used to illustrate a data center's energy allocation. For example, a PUE of 3.0 indicates that the total energy usage of a data center is three times greater than the energy usage of the IT equipment alone. The physical layer products, while accounting for roughly five percent of the total data center investment, can have a surprising impact on PUE. Pathways, cabling layout, containment and airflow can be maximized using a variety of best practices and products designed to optimize energy usage. ISO/IEC 30134-2 is an international standard under development that will describe how to measure and interpret PUE.

The physical infrastructure products can have an impact on PUE. A number of companies offer solutions that enable companies to become greener—for example, advisory services or health checks to address the goal of lowering operational expenses and PUE.

Conclusion

The greening of IT is more than a public relations movement. For physical infrastructure professionals, the sustainability conversation will become more prominent in customer discussions. Being conversant on the subject will enable many to help their customers or organizations realize their green goals. ◄

AUTHOR'S BIOGRAPHY
Peter Bordonaro is the vice president of Supply Chain Solutions at Anixter. He brings with him over 21 years of marketing, IT, sales and sales management experience and leverages it to develop new solutions that assist customers. He has been involved with the development of eAnixter, Supply Chain Solutions and currently leads efforts to create value based offerings that differentiate Anixter. He can be reached at Peter.Bordonaro@anixter.com.