Cx monitor
Achieve Your Building's Optimal Efficiency
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CONTINUOUS COMMISSIONING

GENERATES ADDITIONAL SAVINGS FOR THE CATERPILLAR FINANCIAL CENTER'S LEED-EB GOLD BUILDING

CONTINUOUS COMMISSIONING® can generate additional energy savings for a building, even after a full Retro-commissioning process.

The LEED-EB Gold certified Caterpillar Financial Center in Nashville, Tenn. underwent both the Retro-commissioning and Continuous Commissioning® processes, and is now on track for a payback of less than two years for cost versus savings.

The 320,000-square-foot office building includes open and enclosed office space, a cafeteria, fitness center, auditorium, video studio, data center and an underground, seven-story parking garage.

SSRCx provided the retro-commissioning for the LEED-EB Gold certification process and was engaged to conduct continuous commissioning to ensure the building systems were performing according to the design intent and the owner's operational needs.

During the systematic and documented existing building commissioning process, low-cost operational and maintenance issues were identified with mechanical, lighting and related controls, which the owner subsequently fixed.

The Continuous Commissioning process identified that air terminal boxes, air handling units and thermostats needed modifications.

Together, the existing building commissioning and the Continuous Commissioning processes have put the Caterpillar Financial Center on a path for exceptional energy performance.

- **12% immediate reduction in electricity**
- **18% energy savings Month over Month (average Apr 11 – May 11 for last 3 years)**
- **Reduced water consumption by 22%**
- **Reduced solid waste generation by 49%**

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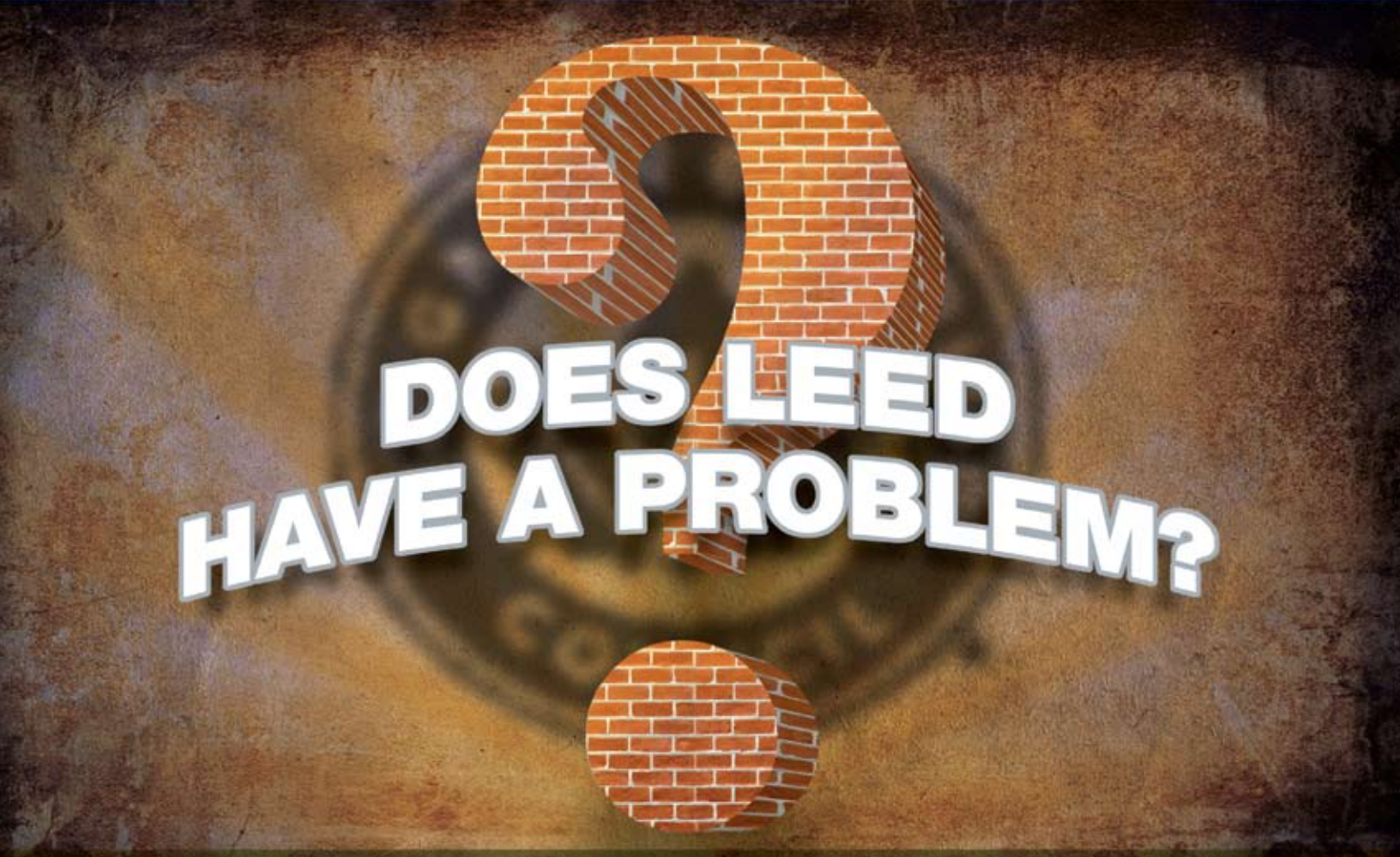
For project details, read the white paper Paul McCown, senior mechanical engineer with SSRCx, presented during the International Conference for Enhanced Building Operations.



The launch of LEED v3—an improved rating system portfolio including LEED 2009—made 2009 a big year for the USGBC.

HOWEVER, 2009 ALSO BECOME THE YEAR where those opposed to LEED found voice in two specific arenas: the criticism that "new construction" LEED buildings are not performing any better than their traditionally constructed peers once in operation and the worry that LEED might add risk to a project's liability.

In working to address the first concern, it's important to keep in mind that the use of LEED is relatively limited as compared to the aggregate construction market. Project teams are still learning how to integrate these industry best practices into their design and construction strategies.

One area that needs improvement is the proper use of an energy model. Most are only interested in using the energy model to demonstrate compliance and improvement over ASHRAE 90.1 requirements, which doesn't leverage its full potential as a design assist tool. When applied early in the process, an energy model is the best way to make good choices related to design efforts that improve energy efficiency.

Like any piece of equipment, many also overlook the fact that a building's energy consuming systems are in a continuing state of decline. In working to address this issue, existing buildings will begin to consider retro-commissioning and Continuous Commissioning® in the coming years.

Legally Speaking...

Much of the risk associated with LEED–whether perceived or real–stems from a lack of project experience and understanding of the process.

The ultimate question of who is to blame for failing to achieve LEED certification or an energy performance benchmark is now being asked. Can any individual consultant or firm bear full responsibility for falling short of expectations?

Agreeing to any guarantee or warranty in a contract isn't wise. Risks associated with a LEED project are no different than any other building effort, except that some members of the design and construction team may still lack experience. Additionally, the pursuit of LEED is a team effort that includes the owner.

Can any individual consultant or firm bear full responsibility for falling short of expectations?

While it's important to write proper contracts, we also need to inform our clients of the role they must play in this process and what to expect in return. While a holistic and integrated design approach will help, it also takes efficient communications and a combined effort between all stakeholders to manage expectations and mitigate liability.

SSRCx's Jacob Halcomb Reports in from Lund University in Sweden

Jacob began the two-year graduate program for Sustainability Science and Environmental Studies (LUMES) at Lund University in the fall of 2009. The LUMES program is part of the University's Center for Sustainability Studies and for the past ten years their interdisciplinary masters program has educated 317 students from 75 nations across our globe.

MY ADVENTURE BEGAN at the tail end of August when I joined 41 other graduate students at Lund University located in Lund, Sweden (about 16 miles east of Copenhagen, Denmark) to start a two-year journey that culminates in a master's in sustainability science.

Sustainability science is an emerging academic discipline that S. W. Kieffer defines as, "the cultivation, integration and application of knowledge about Earth systems gained especially from the holistic and historical sciences (such as geology, ecology, climatology, oceanography) coordinated with knowledge about human interrelationships gained from the social sciences and humanities, in order to evaluate, mitigate, and minimize the consequences regionally and worldwide, of human impacts on planetary systems and on societies across the globe and into the future..."

Over the last 12 years, 317 students from 75 countries have participated in this program to learn of the challenges facing our planet and societies and their potential solutions, and perhaps more importantly, this program also facilitates peer learning as it requires teams with members from all over the globe to work together to solve problems (or, in our case, course assignments). Within my first few weeks here, I gave a presentation on the potable water shortages facing Atlanta, Ga. And the various attempts governments have made to tackle the issue.

Enjoy that sunlight back home… it's sorely missed here!

After my presentation, a student from the former Soviet bloc gave a presentation on her home country's challenge in providing citizens with water, which wasn't quite potable, for more than two or three hours a day. While we're just getting started, I've already discovered that I'll have as much to learn from the professors as from my classmates…the electrical engineer from Columbia, civil engineer from China, nurse from Australia, lawyer from Ukraine, and the list goes on. Thank you for reading and supporting me through this journey. Enjoy that sunlight back home…it's sorely missed here!

SPOTLIGHT *on our* PEOPLE

JAMIE QUALK and other SSRCx team members recently earned LEED-AP BD+C and LEED-AP O&M credentials form the Green Building Certification Institute (GBCI www.gbci.org) For more info about how this new credential affects you, click here.

HEATHER LANGFORD was recently named president of the board of directors for the Tennessee Urban Forestry Council (TUFC), a non-profit organization dedicated to enriching urban forests.

SSR and SSRCx now have more than 100 LEED Accredited Professionals (APs) on staff and more than 100 LEED projects involving new construction commissioning, LEED facilitation, energy modeling and other related services.

Project HIGHLIGHTS

THE US AIRWAYS HEADQUARTER building located in Tempe, Ariz. recently received LEED- EB O&M Gold certification, with SSRCx serving as the project's LEED facilitator. This is the first LEED-EB O&M Certified building in the state of Arizona.

SSRCX HAS BEEN SELECTED to provide Continuous Commissioning® services for Veteran's Administration facilities in thirteen states across the United States.

CRESCENT RESOURCES LLC, recently tapped SSRCx to provide LEED-EB O&M facilitation for 7 office buildings at Cool Springs in Franklin Tenn.

keep up!

BE SURE TO CHECK THESE RECENT ARTICLES AND DISCUSSIONS BY JAMIE QUALK

The February issue of *Environmental Design & Construction* features the article, "Renewable Energy Perspective," addressing the question, "Is 2010 the year when renewable energy gains the momentum necessary to become a dominant fuel source? "

Visit the *BuildIntel* blog to find out more about "Green Building: Where Are We Going and How Will We Get There?"

According to a recent report, not only are green buildings a large portion of the design and construction industry, but green buildings are becoming a part of every project discussion. Jamie discusses the next step in his February ED&C blog, "Net Zero Energy Buildings."

Click the link below to learn more about regulatory compliance & facilities management by reading SSR'S COMPLIANCE NEWS newsletter.

In keeping with our corporate philosophy to minimize negative impact on the environment, the Cx Monitor's *primary form of distribution is email. If you would like to be added to this email list please click here to sign up online at www.ssrcx.com.*

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The Tennessean Green Voices Blog