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LEED CONTRACTOR TOOLKIT

The LEED Contractor Toolkit, designed for contractors working on LEED projects, is now available for purchase.

This product was developed for contractors based on a need in the marketplace for training of field engineers and project managers who recognize the complexity of the various LEED project tasks during construction or who need additional training on the current LEED version.

[More](#)



[Toolkit Video](#)

California Governor Brown Establishes Most Ambitious Greenhouse Gas Reduction Target In North America

From the office of Governor Edmund G. Brown- April, 29 2015

SACRAMENTO - Governor Edmund G. Brown Jr. issued an executive order to establish a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 - the most aggressive benchmark enacted by any government in North America to reduce dangerous carbon emissions over the next decade and a half.

"With this order, California sets a very high bar for itself and other states and nations, but it's one that must be reached - for this generation and generations to come," said Governor Brown. This executive action sets the stage for the important work being done on climate change by the Legislature.

[Click here for the full article.](#)

New LEED Documentation Path for California Projects

Courtney Yan, USGBC - April 23, 2015

Starting in July of 2015, projects in California subject to the mandatory 2013 CALGreen requirements will be able to use an alternative documentation path for LEED. Approved by the LEED Steering Committee, this streamlined path will be available for use on select credits for projects registered under the 2009 or v4 versions of LEED BD+C or LEED ID+C.

An alternative documentation path outlines a set of documents that projects may provide in lieu of standard LEED documentation in order to demonstrate LEED compliance. Unlike an Alternative Compliance Path (ACP), all rating system intents and requirements remain unchanged.

[Click here for the full article.](#)

Existing Building Commissioning

The Solution to No/Low-Cost Savings

Christopher Morales, PE, CEM, LEED AP O+M - Commissioning Engineer

The times are changing. Even a couple of years ago, the economy was recessed. Investor confidence was shaky at best. Developers were putting up new buildings sparsely. Vertical construction was limited to cities that were not struggling as much. During these times, the reasons for performing energy-savings services in existing buildings were to reduce energy costs, and/or retain building tenants by improving indoor environmental quality. Nowadays, the economy is different. Investor confidence is firm. Developers in a number of cities, such as San Francisco, are putting up buildings like they're going out of style. Vertical construction and renovations are happening in most cities. There also is not as much focus on building owners trimming the fat in their portfolios. Ironically, though, the reasons for performing energy-savings services on their buildings haven't changed. There is still a need to reduce energy maintenance costs, and improve indoor environmental quality to retain tenants. The only difference is instead of having these services performed to reduce costs during economically troubling times, these services should be performed to improve resiliency to better prepare for the next economic recession. Although there are a number of different energy-savings services in the market, including energy audits and deep-retrofits through an energy service performance contract (ESPC), in my opinion Existing Building Commissioning is the best process for realizing cost-effective energy and cost savings in many existing buildings.

What is EBCx?

Existing Building Commissioning (EBCx) is a process for improving the controllability and performance of building systems. Though there are many different philosophies

on how EBCx should be performed, here at Ambient Energy we believe that the process should focus on improving the way the building systems perform without the owner having to spend money on equipment upgrades or replacements. In short, we focus on making the existing systems work properly, and then improving how they perform.

EBCx is also a very cost-effective method for reducing energy costs in existing buildings. In a meta-analysis of building commissioning results led by Dr. Evan Mills with the Lawrence Berkeley National Laboratory, EBCx has been shown to result in 16% whole building energy savings with a simple payback period of 1.1 years, and 91% cash-on-cash returns on average. That's a simple return on investment of 67%! These statistics don't exist for energy audits and ESPC services.

What is EBCx About?

I have heard many variations of this question, but essentially they're all asking "What is EBCx about?" The analogy I like to use for explaining what EBCx is about is car maintenance. EBCx isn't about taking a 1990 Honda Civic and trying to turn it into a brand new BMW or Mercedes, it's about taking that 1990 Honda Civic, restoring it back to its prime, and then tuning the engine for performance. EBCx is not about requiring the owner to spend money on upgrading their systems/equipment to improve their building's performance. EBCx is about having the existing systems undergo maintenance first to make sure the equipment are working properly, then adjusting how they are controlled to improve their performance. Here at Ambient Energy we take it a couple of steps further to add that EBCx also includes monitoring and tracking of the building's performance after improvements have been made to see if these improvements are persisting, and the working with the building owner to further improve the building systems on an ongoing basis.

What is the First Step in the Process?

For building owners, the first step in the process is to establish the reasons for having EBCx performed on the building. Have the building operators received numerous thermal comfort complaints from the tenants? Are there concerns with ever increasing energy bills for the building? Are there concerns about the state of the HVAC systems? Whatever the reasons for wanting to perform an engineering study in the building, they should be identified so that the correct process can also be identified. Without an idea of what the problems and desired outcomes are, it's very difficult to choose the right process.

I also suggest getting your utility account representative involved in this process. They may be able to help identify a process that will help identify solutions to identified problems. They also may have a variety of incentive or rebate programs that help buy down or pay off the cost to perform EBCx projects. They may also have a list of Qualified Service Providers (QSPs) or Trade Allies that have been screened through a rigorous application process to check that the QSP or Trade Ally is qualified to perform EBCx services. Although we can become qualified under mostly utility programs, Ambient Energy is an approved provider for the following utility EBCx programs:

- * Xcel Energy ReCx Program
- * Platte River Power Authority Building Tune-up (BTU) Program
- * Salt River Project Powerwise Retrocommissioning (RCx) Program

How Can EBCx Be Planned For Success?

Here at Ambient Energy we advise building owners to perform a detailed study of their building first, then we can talk about the next steps in the process. I advise

building owners to be weary of proposals for EBCx services from a provider that includes Implementation Assistance prior to them performing a detailed study or assessment of the building. The reason I advise this is because, without having performed a detailed study to identify and analyze the problems and improvements, how can a provider know what level of implementation assistance the owner will need to make the project successful? Proposing Implementation Assistance before performing a detailed study or assessment is like committing to paint a wall in a study green without knowing if the house even has a study in it. Kind of like putting the cart before the horse. It inevitably results in loss of intended performance and energy cost savings, and can result in increased project costs. According to Mills¹, comprehensive EBCx projects achieved twice the overall median level of energy savings, and up to five times the savings as projects with constrained services. For these reasons. A detailed study or assessment should be performed first, then talk about the next steps based on the detailed study results.

Why Should You Consider Ambient Energy for EBCx?

Here at Ambient Energy we believe in providing comprehensive EBCx services that are tailored to the owner's needs. We don't try to push a "one size fits all" approach on building owners. We understand that each building and owner is unique, with unique challenges and goals. As such, we factor in these challenges and goals into the EBCx service we propose. We recommend that a detailed EBCx Study of the building be performed as the first step to better understand the challenges of the building, goals of the owner, improvements that can be made, and quantify the potential cost effectiveness for going through a tailored EBCx Program. We also work with the owner to fine tune improvements made to the commissioned system on an ongoing basis to help maintain the persistence of savings. For more information, please email christopher@ambient-e.com.

The WELL Building Standard and The Energy Impact

Renée Azerbegi, CEM, LEED-AP BD+C, GGP, Provisional WELL-AP, LBC Ambassador - Principal

With the price of energy declining, and the increased frequency and severity of illnesses, allergies, and chronic diseases, the focus on health and wellbeing of building occupants is becoming more mainstream. Dr. Michael Roizen, Chief Wellness Officer of the Wellness Institute of the Cleveland Clinic, stated that of all US spending, healthcare spending as a percentage of GDP is increasing significantly, while all other spending is going down. The growth rate of chronic diseases is likewise trending upwards. Four factors cause 75% of chronic diseases - stress, physical inactivity, food choices and portion size, and tobacco. Chronic disease management represents 67% of health care costs for individuals under 65 years of age.



The WELL Building Standard represents a new building standard available in the US to address indoor environmental conditions within buildings that the typical American spends 90% of their time. Officially released in October 2014 prior to Greenbuild, the WELL Building Standard is the first of its kind with this focus on human health and wellbeing.

Ambient Energy is providing energy, commissioning, and/or sustainability consulting on several projects utilizing the WELL Building Standard. In an effort to learn more about WELL, Renee Azerbegi attended the inaugural WELL kickoff in New Orleans in October 2014. She was so excited about the content that in February of 2015, she attended the first WELL Building training for future WELL Accredited Professionals at the Cleveland Clinic in Ohio with only 100 attendees nationwide. As an energy consultant for over 18 years, my first impressions were that the WELL Building Standard sounded like a comprehensive and vigorous rating system, but caused me to ask the question "what is the true impact on energy and the environment?" See an upcoming white paper on this subject on our website in June 2015, www.ambient-e.com.

Staff Profile: Clayton Bartczak, 5 Years and Counting!

April Luxner - Director of Marketing & Business Development

This quarter we decided to highlight a special member of our team, Clayton Bartczak. Clayton joined Ambient Energy five years ago and is part of the Sustainability Team. This article is written to provide a glimpse into the life of the humanitarian, music enthusiast and dedicated employee we know as Clayton Bartczak.



After earning his bachelor's degree from Colorado State University, he traveled through South America, spending time as volunteer building homes for low income families in rural Chile. This was a defining moment for Clayton and he decided he needed a career where he could make a positive social impact. He then joined AmeriCorps, a U.S. federal government program whose goal is "helping others and meeting critical needs in the community" where he served two years of service with Habitat for Humanity of Metro Denver. Clayton helped build many homes and knew that the physical toll of hands-on construction would not be a sustainable long-term career. He was also sensitive to the fact that people were affected around the world because of climate change. In 2007 Clayton began graduate school at Colorado State University for Construction Management with a focus on sustainable design and construction. In the weeks between completing his service with AmeriCorps and starting grad school, Clayton married Kim Hellmuth. As a man with little time to spare, he found himself on a journey where both his personal and professional life were taking off.

When asked how the industry has changed over the past five years, Clayton commented, "Many of our clients have come a long way. It is my goal to continue to learn and teach others the techniques and principles to improve sustainability in the built environment. I quote USGBC CEO Rick Fedrizzi by saying, 'I dare you to put us out of business.' There is still a demand for professionals to improve the design, construction and maintenance of buildings; however, I am all for moving towards another profession if the design and construction industry reaches a point where it no longer needs me." For Clayton, some of the recent changes in the industry include the proliferation of Sustainable Management Plans, C-suite level sustainability professionals as well as the growing commissioning industry. Clayton's work at Ambient Energy is diverse including things such as sustainability consulting

for new construction projects, charrette facilitation, infrared camera and energy audits, and LEED for Existing Buildings projects. Clayton says, "I like working at Ambient Energy because there's always something new to learn, our goal is to always make a positive impact, and I get to work with fun people!"



You may have seen Clayton on a job site, met him at an industry function like USGBC or IFMA, or giving a lunch and learn but here a few facts that you might not know. Many years ago Clayton's father founded Eric Bartczak Architects and his mother founded Pamela Bartczak Interior Design. Both still active in the Denver design industry, Clayton's parents are a great source of inspiration and have always been very supportive of both of their sons. Clayton's brother Adam is an accomplished Denver trombonist and composer, leading the band the Adam Bartczak Republic, constantly performing as a member of various other jazz, rock, blues, and salsa bands, and teaching as an adjunct faculty member at Metro State University. Although Clayton enjoys playing the guitar, he'll need many more years of practice

before he can join any of Adam's bands. Clayton's wife Kim is the Merchandise Manager for Intrawest, a Denver based company that owns ski resorts worldwide, and in this role gets to show off her talents for both shopping and snowboarding. As the father of two young children, three year old son Miles and 4 month old daughter Maya, Clayton is always on his toes!

On behalf of Ambient Energy, I would like to thank Clayton for all he has done in impacting our world and sustainable community. His work ethic and humanitarian efforts are commendable, and we are honored to have Clayton as a contributing member of the firm's sustainability team.

Sustainability Tour of the Denver Zoo

Clayton Bartczak, LEED-AP BD+C, O&M - Sustainable Design Specialist

Recently Ambient Energy was fortunate to have a behind the scenes sustainability tour of the Denver Zoo, hosted by our friend and colleague George Pond, Vice President for Design and Campus Management. George explained the zoo's incredible grassroots sustainability journey over his 14 year tenure at the zoo and



described their efforts to become a near zero waste campus. Achieving that goal has as much to do with what the zoo buys as what they throw away, in part due to the zoo's pioneering efforts to design, build, and install a waste to energy gasification plant. When fully operational, the zoo's one of a kind gasification plant will take the zoo's waste and make pellets which are then get turned into a gas to burn for space and water heating (it is important to note that the zoo does not burn or incinerate trash!). The gasification plant will utilize animal waste, food waste, as well as most items typically sent to the landfill and will help the zoo greatly decrease the waste that must be hauled off-site to the recycling plant or landfill. Because the gasification plant can only accept

certain materials, the zoo has examined every aspect of its procurement to ensure almost everything purchased and used by the zoo can later become energy. We were all impressed by the zoo's efforts and are excited to take their lessons learned and great sustainability stories into the work we do. Thanks for the tour George!

Habitat for Humanity Sponsorship

Clayton Bartczak, LEED-AP BD+C, O&M - Sustainable Design Specialist

Ambient Energy recently had the pleasure of sponsoring a day for Habitat for Humanity of Metro Denver. This allowed us to show our commitment to the community through both a financial donation that ensures Habitat can continue its work and through our work on the construction site. We spent a beautiful sunny day installing deck sheathing on the second story of a townhome complex in Denver's Montbello neighborhood where we got to work alongside future homeowners, Habitat and AmeriCorps staff, and other like-minded volunteers who were out to have some fun and make a difference. Although we are involved in so many other aspects of design and construction projects, it is always fun to get out and get our hands dirty too! We even had a few friends and family members join us. Let us know if you're interested in joining next time!



ON THE BOARDS

Ambient Energy's three offices provide consulting services on a wide range of project types across the United States. Several recently awarded projects include:

- Block 6 High Rise Apartments, Denver, Sustainability, energy consulting and commissioning for Shears Adkins Rockmore Architects
- Liberty Mutual, Dallas, energy consulting for Telios Engineering
- 150 4th Street Hotel, San Francisco, sustainability consulting for Paradigm Hotels Group
- Ski Condos, Taos, energy modeling for BCER Engineers
- Art Museum Expansion, Fort Collins, commissioning for Colorado State University

We're Hiring & Looking For Referrals

Are you ready to work where you can have real IMPACT?

Ambient Energy is looking to hire Commissioning Agents, Building Performance Engineers and a Sustainability Consultant to round out our team this year. Please see more details including a description of our benefits here: [Career Page](#)

Ambient Energy provides sustainability, energy, and commissioning consulting on new and existing buildings. We work with government agencies, building owners, architects and contractors. Our clients plan, design, maintain, construct and operate highly efficient and sustainable buildings. I appreciate your business and look forward to speaking with you soon.

"Celebrating 10 Years of Improving the Built World"

Sincerely,

Renee Azerbegi, President
renee@ambient-e.com

[Denver](#) | [San Francisco](#) | [Los Angeles](#)

Ambient Energy is a women-owned small business and often qualifies as a disadvantaged business enterprise. Current certifications include:

- Federal Government: WOSB
- Women's Business Enterprise Council: WBENC
- California Unified Certification Program: DBE, WBE
- San Francisco Office of Community Investment and Infrastructure: SBE
- County of Los Angeles Community Business Enterprise Program: DBE, WBE
- State of Colorado: DBE, M/WBE, SBE

NAICS Codes: 236220, 541310, 541330, 541350, 541380, 541490, 541618, 541620, 541690, 541990, 543950, 561210, 561990, 611430

