

Two Cities, One Plan: Anaheim and Austin Convention Centers Go Green

BILL CONLEY, CFM, CFMJ, LEED AP, IFMA FELLOW,
AND LAURIE GILMER, P.E., CFM, LEED AP, CXA

In two cities, half a continent away, the path of taking a convention center through the LEED® (Leadership in Energy and Environmental Design) for Existing Building certification process was attempted at almost the same time for the same reasons.

Facility professionals at the Anaheim Convention Center in California and the Austin Convention Center in Texas decided to improve their operations through sustainability and report their success and high standards through LEED EB Operations and Maintenance (O&M) certification.

Recalled to life

At the Anaheim Convention Center, the team found that going through the analyses, checklists and achieving LEED standards helped make them more in tune with the needs and operations of the facility. It was a complete learning experience that helped them become more qualified to make facility maintenance decisions.

Not only were they able to get fully immersed in the more technical side of the facility, but they were also better able to understand other aspects of the convention center and its capabilities while achieving a more holistic view of business operations.

For instance, they have always referred to their building size as 1.6 million square feet. However, for the LEED project, an approximate measure wasn't specific enough. They were forced to measure the convention center inside and out and found that it actually covered 1,602,263 square feet—a minimal difference, to be sure, but critical in better understanding the composition of the facility.

Other discoveries during the process also would prove to be of great importance. One instance was water usage—a measure that often is overlooked. Water can be viewed as the fundamental symbol of all those aspects of life that are taken for granted—an aspect that can be dangerous when it overflows its proper limits but can prove to be of incalculable value when it no longer is easily accessible.

The Anaheim Convention Center has more than 1,200 flush and flow fixtures, added at various times during the history of the facility. An inventory of fixture by type was necessitated to determine capacity and flow of all the different devices.

It was found that many of the flush and flow fixtures were still original and many of the toilets were still outfitted with

3.5 gallon per flush (gpf) valves. 1.6 gpf mechanisms—which were the recommended standard—would not work in these toilets and it would have been cost prohibitive to change out all of the china to accept new flush valves. After doing some research, they found out that 2.4 gpf units were available in the market and would serve to reduce water usage without having to change out complete units, as these could be used in the older toilets. By implementing this change, they were able to decrease water use to acceptable levels in a cost-efficient manner.

Measuring this usage was also revelatory for both facilities. Even though water meters were checked weekly, most of the water consumed in the facility is by visitors and customers, and volume per capita needed to be reported. Thus usage was calculated by taking the total number of visitors that came into the facility over a one-year period and dividing that number by 365 to determine number of visitors per day. This number led to a determination of average water usage in the restrooms.

Another interesting discovery was delivered through an occupant survey. The Anaheim team originally assumed this survey was only aimed at the employees who worked in the offices and conditioned spaces. When they



learned that it was to include all workers, they became concerned, as the exhibit halls only are air conditioned when events are taking place. At all other times, lighting and climate controls are turned off. They weren't sure how those personnel working in un-air conditioned areas would respond to questions on working conditions. They were pleasantly surprised at both the response rate of the survey (more than 30 percent) but also the positive feedback received overall.

In the Austin facility, retro-commissioning was by far the most difficult credit to achieve. Commissioning—the process of ensuring that facilities operate as designed—can be a challenge for existing facilities. The process, after all, is taking place after years of wear and tear on the facility in addition to changes that have occurred since the building was first constructed. The Austin team had very limited background data as well as some internal barriers needed to be overcome before the contract was able to be executed in a timely manner.

The golden thread

One of the major facets of facility management as well as LEED certification revolves around energy. It is the common denomina-

tor for so many building operations. It is also an area where facility managers can assume some control. In fact, energy efficiency and the resultant cost savings attributed to it became of prime importance during the process.

The first thing that needed to be done at the Anaheim Convention Center was the calibration of all their electrical meters. This was a time-consuming effort, but it needed to be done to truly measure energy consumption and it will be of value in the future as they continue to track and measure energy utilization in the facility. Again, the emphasis became to perform tasks that needed to be accomplished but had been missed due to the focus on day-to-day activities.

The convention center energy use was entered into the U.S. Environmental Protection Agency's (EPA) ENERGY STAR® Portfolio Manager. However convention centers are not ratable facilities. For non-ratable facilities, LEED provides an alternate method to compare energy consumption using weather normalization based on the location of the property. The energy performance rating that satisfies this pre-requisite is not complete until weather impacts are included in the equation. Their

base energy rating did decrease after regional aspects were included in the mix.

The Austin team took a different route¹ in establishing comparison for their energy consumption. In partnership with the Oregon and Virginia Beach Convention Centers, they worked to build a peer group within ENERGY STAR Portfolio Manager that consists of convention centers sharing their energy consumption information. However as these facilities are striving for excellence through sustainability, this was, in a sense, comparing convention centers with the cream of the crop. Yet the process helped establish strong comparisons to how the convention center performed in relationship to comparable building types.

This effort shows the benefit of contacts and collaboration within the facility management community and is another reason to participate in the IFMA Energy Challenge. The more facilities that share data with IFMA's master account, the easier it will become to benchmark energy consumption and minimize such challenges.

The track of a storm

Weather normalization was part of the LEED template for energy efficiency and

this portion of the calculations affected the Anaheim Convention Center. They felt that once they normalized the energy data, it cost them enough points to preclude any further credits beyond the pre-requisite. They contacted both the Green Building Certification Institute and the EPA on this issue.

The Austin team felt that they, too, missed out on potential points, but for other reasons. It was determined that by comparing themselves against other high achievers and not having a cross-section of high performing and low performing facilities upon which to rate the facility, they were not rewarded as much as could have been possible if they had been able to measure their performance against average buildings.

Regardless of the challenges, both facilities' teams had enough credits to qualify, and they were able to establish and benchmark their energy consumption. Both facilities understood that the intent of this process was to gain understanding of their performance and to improve energy efficiency, not necessarily to achieve a high score in LEED.

Of course, there was nothing wrong in pursuing as many points as possible. The Anaheim Convention Center team found a fringe benefit through their association with their city, which owns the center. The City of Anaheim also owns many off-site parks that are maintained in the natural state. LEED allows off-site preserves to be used as an offset as long as it is maintained by the property owner. They were able to use the city's Old Canyon Nature Center to achieve an exemplary practice in the sustainable sites category.

Other benefits that were derived from the process were the performances eligible for extra credits that were revealed. Those working at the Anaheim Convention Center found that their use of green cleaning products and materials exceeded the norm, earning them an exemplary performance, as did the APPA cleaning performance assessment. At the Austin Convention Center, it was found that the majority of the procedures and products concerning materials and resources in their facility surpassed common practices, as well as credits for exceeding requirements in waste diversion and office supplies. In both cases,

the teams were energized by the knowledge that operations that seemed normal to them were actually extraordinary.

Going against conventional wisdom does not always seem to be the best course. However, both convention centers saw the light regarding the benefit of sustainable actions in their facilities. They were pursuing certification with indications pointing direct the other way but, they persevered.

Education was a common theme in both efforts. Not only on the public side through placards, kiosks and other centers of information but also among their peer group of facility professionals. The project manager in Anaheim stated that he felt that sustainable operations were the best way to run a building. He was willing and able to share his successes with other facility managers. This sentiment was echoed in Austin, where the project manager said that he values the opportunities he has had to educate his peers in the area of sustainable operations and that he will look forward to passing along relevant information, especially to future facility managers.

Redemption

Although the value of qualitative benefits may be diminished by the focus on the bottom line, it was edifying for both convention center teams to realize positive results achieved through their efforts.

The Austin team truly "...expects to have a building that operates in a fashion that can be verified as utilizing best practices in sustainable operations. No business is immune to economic challenges whether it be from the global economy or from changes in the needs of its customers."

They further anticipate that "...the facilities group to be able to produce a quality facility at the lowest possible cost."

They believe that LEED certification is part of the puzzle that will allow the convention center to stay relevant in the marketplace and add credibility to the assertion that Austin is a city intent on promoting and carrying out sustainable practices.

In Anaheim, it was noticed that due to their environmentally preferred purchasing program, they influenced the market in the city for the demand and availability of sustainable products. They heard from vendors and staff that this impact has been pronounced and the availability and demand of sustainable products demonstrably increased since they started their project due their sizable purchasing power. Over the course of the project, not only did they find new vendors that met environmentally safe criteria at good price points but—understanding the drive for sustainable products—their long-time vendors began to carry lines of similarly priced products that also met the criteria. As the market catches up with the demand for more sustainable goods, this phenomenon will become even more prevalent.

Going against conventional wisdom does not always seem to be the best course. However, both convention centers saw the light regarding the benefit of sustainable actions in their facilities. They were pursuing certification with indications pointing direct the other way but, they persevered. **FMJ**

A special thanks goes to Brian Daniels, LEED AP O&M, at the Anaheim Convention Center and David Thomas, CFM, LEED AP, at the Austin Convention Center for their input to this article.

References

1. The convention centers were working with different versions of the LEED for Existing Buildings rating system, causing slight changes in approach to prerequisites and credits.



Bill Conley, CFM, CFMJ, LEED AP, IFMA Fellow, is owner/CSO of CFM2, a facility management and sustainability consulting company based in Orange County, Calif.

Conley has more than 35 years of experience in the facility management profession and has been a proponent of sustainable operations for more than 17 years.

He has worked on LEED® (Leadership in Energy and Environmental Design) projects as well as assisted companies in implementing and benefitting from sustainable practices. Conley received his Certified Facility Manager® designation from IFMA in 1992 and achieved LEED professional accreditation through the U.S. Green Building Council in 2002.

In addition to his induction as an IFMA Fellow, Conley is currently a member of the IFMA board of directors, a recipient of IFMA's distinguished member of the year award and has twice received the association's distinguished author award. Additionally, Conley helped develop the Orange County Chapter of the USGBC.



Laurie Gilmer, P.E., CFM, LEED AP, CxA, is an associate at FEA and leads FEA's building energy management services. Her experience includes sustainability/LEED, systems analysis, energy audits, commissioning,

building systems planning and controls review. Gilmer currently serves as a member of IFMA's sustainability committee and is a board member of the Redwood Empire Chapter.



IFMA's WORLD WORKPLACE 2011
The Facility Conference & Expo
Phoenix Convention Center | Phoenix, Ariz., USA

» IFMA's Fall Symposium 2011



Register for IFMA's 2011 Fall Symposium when you register for World Workplace.

Attend continuing education courses led by highly qualified instructors—move a step closer to earning one of the finest credentials available for your profession.



Learn while you earn with the enhanced FMP Credential Program™.

- Operations and Maintenance | Oct. 22-23
- Leadership and Strategy Essentials | Oct. 22-23
- Project Management | Oct. 24-25
- Finance and Business Essentials | Oct. 24-25

FMP® Course Pricing: US\$700/course;
Nonmember: US\$900/course



Earn the SFP™ credential in just six days! This credential is being offered as a complete series*.

Part 1 – Focus Areas 1 & 2 | Oct. 23-25
Strategy and Alignment for Sustainable Facility Management
Managing Sustainable Facilities

Part 2 – Focus Area 3 | Oct. 26-28
Operating Sustainable Facilities

SFP Program Pricing: US\$1,995; Nonmember: US\$2,295
(Early-adopter pricing for the complete instructor-led SFP Credential Program includes the self-study e-version and hard-copy kit)

*SFP Course Options: If you are unable to attend all six days, you may complete one of the parts at Fall Symposium and the remaining part via self-study. Price will be as noted above.



Prepare for the most respected certification in facility management.

- CFM Exam Review | Oct. 24-25

CFM Exam Review Pricing: US\$495; Nonmember: US\$695

Not sure which IFMA credentials are right for you?

Visit www.ifmacredentials.org.