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ENERGY STAR Success Story: The Virginia Beach Convention Center

Located in Virginia's most populous city, the Virginia Beach Convention Center (VBCC) comprises more than 516,000 square feet and typically hosts 400 events a year. Fully opened in 2007, the VBCC has served as the anchor for the successful revitalization of Virginia Beach's old beach district. With historical references and maritime themes integrated into the structure's modern design, the Center features many technological advances that make it a prime location for meetings, conferences, and trade shows. However, even with a newly constructed building, the VBCC has demonstrated an important energy management principle: **all** buildings, regardless of their age and building systems they employ, can reduce energy consumption, save money, and offset greenhouse gas emissions by implementing low-cost, high-return energy management strategies.



Energy Management with ENERGY STAR

The Virginia Beach Convention Center joined the U.S. Environmental Protection Agency's (EPA) ENERGY STAR program for Commercial Buildings in 2007, becoming one of the first convention centers to partner with the program. Adhering to the ENERGY STAR [Guidelines for Energy Management](#), VBCC staff uses free on-line ENERGY STAR trainings and resources, and is benchmarking the building's energy consumption on a monthly basis using [Portfolio Manager](#) to measure and compare the building's energy use.

The Virginia Beach Convention Center uses low-cost and no-cost strategies to achieve energy savings including:

- Programming lighting and HVAC systems to minimize non-peak hour usage
- Switching off building lights when events are over
- Discontinuing the use of gallery lights outside meeting suites unless specifically requested
- Managing and controlling exterior lighting using the computerized Lutron lighting system
- Reducing lighting levels and ventilation use during vendor load-in and set-up
- Educating staff on proper air curtain use
- Activating air curtains during extreme temperatures or large events
- Utilizing only ENERGY STAR qualified copiers and printers

By implementing relatively simple changes to the way the building's lighting and HVAC systems operate, during the first year alone, the VBCC reduced electricity and natural gas consumption by more than 2.5 million kWh and 140,000 CCF respectively. This 22 percent reduction in electricity and 40 percent reduction in natural gas translated into a total savings of more than \$204,000 and 2,500 tons of CO₂ equivalent.



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Utility Savings From the ENERGY STAR Plan			
Utility	Previous 12 Months (before ENERGY STAR)	First 12 Months of ENERGY STAR	Saved
Electric	\$866,065	\$773,874	\$92,191
Gas (Heat)	\$371,897	\$259,854	\$112,043
Water	\$65,221	\$56,869	\$8,352
TOTAL DOLLARS SAVED FROM PREVIOUS YEAR:			\$212,586
Time Periods First Twelve Months: February 2008 to January 2009 Previous Twelve Months: February 2007 to January 2008			

Virginia Beach Convention Center Summary of Reduction in Energy & CO2			
Utility	Previous 12 Months (before ENERGY STAR)	First 12 Months of ENERGY STAR	Saved
Electric	11,526,196 kVh	8,945,626 kVh	2,580,570 kVh
Gas (Heat)	347,419 CCFs	207,091 CCFs	140,328 CCFs
Water	15,596,000 Gallons	13,938,000 Gallons	1,658,000 Gallons
TOTAL CO2 SAVED:			5,039,256 lbs
Time Periods First Twelve Months: February 2008 to January 2009 Previous Twelve Months: February 2007 to January 2008 <small>NOTE: CO2 calculated at 1.297 per kWh, 12.0593 per CCF</small>			

Represents total dollars, electricity, gas, and CO₂ emissions saved from February 2008 to January 2009 when compared to the previous twelve months as a result of the Virginia Beach Convention Center's energy management efforts.

The VBCC has not limited energy management efforts to its own complex, but is also showing leadership by spearheading a national data collection effort to recruit other like-minded convention centers to benchmark their buildings using Portfolio Manager, and to share their successes with one another.

Employee and Contractor Engagement

One of the keys to the Virginia Beach Convention Center's continuous improvement has been the engagement and buy-in of staff and contractors. The VBCC's management team provides ample energy management training, tools, and resources for staff and contractors who also are encouraged to look for additional, creative ways to save energy. Often times, these turn out to be simple, low-cost approaches that lead to big savings. For example, the maintenance staff noticed that energy was wasted because the entire convention center was lit and air conditioned during cleaning hours. In response, the cleaning crew reorganized itself into teams working together in one area at a time, rather than individually throughout the building, allowing lighting and HVAC to be turned off in all areas except those where the crew is working.

Communicating Energy Management Messages

The Virginia Beach Convention Center uses a tiered communications and marketing strategy designed to engage both staff and visitors.

- Signs throughout the facility display sustainability tips for employees and visitors. Through a partnership with OneEarth.org, the VBCC has developed an educational video that incorporates sustainability practices and successes with OneEarth.org public service announcements. The video is shown to venue visitors on a 360-foot video wall to highlight the VBCC's achievements in saving energy and reducing greenhouse gas emissions, while inspiring viewers to reduce their own environmental footprint during their visit and in their everyday lives.
- The Virginia Beach Convention Center Web site (www.vbconventioncenter.com) features information on green initiatives and green meeting topics.
- The Center's management sponsors seminars and trainings on green topics, and raises awareness through a bi-monthly employee newsletter.
- The Virginia Convention & Visitors Bureau (which operates the VBCC) distributes a quarterly newsletter to visitors, business leaders, area restaurants, hotels, and retailers, and uses Facebook and Twitter to promote energy and environmental awareness.

Other Green Initiatives and Accomplishments

As the first convention center in the state to be certified through the Virginia Green program¹, the VBCC is also pursuing the U.S. Green Building Council's LEED certification. At the city's annual National Tourism Week Hospitality & Tourism Recognition event, the VBCC's Assistant General Manager, Lori Herrick, a LEED Accredited Professional, received the inaugural Green Award. As a recognized leader in the VBCC's sustainability efforts, and the catalyst for the ENERGY STAR convention center data collection initiative, Lori has one message she hopes to share:

"You don't have to spend money to save energy!"

¹ *Virginia Green* is a voluntary program sponsored by the Virginia Department of Environmental Quality, which encourages all aspects of Virginia tourism to be aware of their impact on the environment and to take steps to reduce these impacts.