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ASHRAE's Advanced Energy Design Guide series of publications is available as free electronic download products. The newest guide features small warehouses and self−storage buildings. Other publications cover small retail buildings, small office buildings and K−12 school buildings.

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These free electronic books are being made available in partnership with the U.S. Department of Energy, the Illuminating Engineering Society of North America, the American Institute of Architects and the U.S. Green Building Council. ASHRAE also has sent free print copies of the Advanced Energy Design Guide for K−12 Schools to more than 14,000 school systems in the United States as part of the Society's effort to advance energy efficiency in schools.

SMACNA's *HVAC Contractors Guide to Bidding Green Building Projects* is available free to members only. The purpose of this guide is to introduce HVAC contracting firm personnel to green building construction and provide information that will help the HVAC contracting firm successfully bid green building construction projects. Click on this link (http://www.smacna.org/members/pdf/management/SMACNA_Bidding_Green_08OCT07.pdf) to download a free copy.

Are You Prepared for a Flu Pandemic?

Government, business and industry leaders talk a lot about contingency planning in the event of a catastrophe. What do they mean by that and what kind of threats are they talking about?

Save Money On Damper Installations

The Great River Energy corporate headquarters in Minnesota was completed in April 2008 and is the first building in the state to seek LEED Platinum certification. There was a tight construction deadline for the contractor and selecting HVAC products that would save installation time helped meet the deadline. The 22 Greenheck fire smoke dampers with factory–mounted quick connect breakaway connectors selected for this project saved the contractor 52 minutes of installation time for each damper.

Local Leaders In Sustainability – Green Incentives Report Available From AIA

State and local governments are using a variety of incentive–based techniques to encourage green building practices. These efforts have encountered challenges including the cost of new incentive programs, resource shortcomings and implementation difficulties. In order to help communities overcome these obstacles, the American Institute of Architects (AIA) commissioned a report, Local Leaders in Sustainability – Green Incentives, that defines and examines many types of incentive programs, details the inherent barriers to success and highlights best practice examples from around the country.

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Ascent Media Saves Energy; Goes Green With Help From McQuay Factory Service & Frictionless Chiller

Keeping the building's broadcast and production equipment cool is critical to that business. So the company turned to McQuay for its reliable frictionless chiller technology yielding significant energy savings and an attractive utility rebate to boot.

"The key thing about our operations is we're more than just office space," says Kurt Liddi, vice president of engineering for Ascent Media Network Services in Stamford, Connecticut. "We're a 24/7 high−energy operation that produces a great amount of heat for its size. We produce 24 hours a day and needed highly reliable, efficient cooling to manage that operation on a year−round basis."

The power consumption at Ascent Media Network Services' 150,000 sq ft Harbor Plaza building in Stamford is considerable, Liddi says. The building is a mix of administrative and technical space including some for major cable networks that produce content in the building. About 25 percent of the 1980s−era four−story building is composed of technical facilities: heating−generating production and transmission equipment as well as computers in control rooms, edit bays and studios. "The technical load alone consumes about 250,000 kilowatt hours per month," Liddi says.

The building's existing four chillers, housed in pairs in back−to−back machine rooms in the basement of the building, were well maintained through more than 25 years of operation. "The equipment performed remarkably well considering its age, but at some point we were approaching the end of the operating lifespan of the system," Liddi says. "Plus today's chillers are so much more efficient than the chillers of 25 years ago. So when the local utility, Connecticut Power & Light, offered a chiller replacement incentive program, Liddi had even more reason to replace the old chillers. For a recommendation on what type of modern chiller would best fit the Ascent Media system requirements, he turned to McQuay Factory Service who has maintained the original chillers since they were installed.

Ascent Media, production and distribution facility for national network television, reduced its energy consumption by 40% at its Stamford Connecticut, building after working with McQuay Factory Service to replace its old chillers with new, high efficiency frictionless chillers.

In response, McQuay Factory Service conducted a site survey and showed Liddi the McQuay frictionless chiller technology in action at another installation in upstate New York. Liddi was sold. "This particular chiller by McQuay was the most efficient and best for our operation," Liddi says. The load capacity and efficiencies of the McQuay frictionless magnetic−bearing chillers at 200−tons of capacity each meant that only three chillers were

required to replace the four existing chillers. Liddi says: “Our operation configuration is lead, lag and standby and we rotate the standby role. Our system isn’t capable of operating all three at the same time. We have one in reserve and run a maximum of two at any time.”

Phased approach

To provide the necessary uninterrupted cooling at the Ascent Media facility, installation of the new McQuay frictionless chillers was completed in two phases. “Our biggest challenge was to make sure the customer always had cooling,” explains the McQuay Factory Service representative in Danbury, Connecticut. “Ascent Media could loose their cooling within 15 minutes if those machines lost power. We made sure that didn’t happen.”

Turnkey project

Liddi credits the McQuay team for their exceptional turnkey service on the project, including linking the chiller controls to peripherals, thereby offering one−touch controls to open the system valves and turn on the pumps in place of external controls. Liddi appreciates the advanced controls on the chillers. “The touch−screen graphical user interface is easy to use and quite informative. Each machine has its own interface and essentially operates itself once configured,” he says.

In addition, McQuay installed a new ventilation system in the chiller plant room to comply with the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 15 titled Safety Standard for Refrigeration Systems.
Liddi notes that the refrigerant used by the new McQuay frictionless chillers, HFC−134a, is rated A1 (best) by ASHRAE Standard 34 (lower toxicity, no flame propagation). HFC−134a has additional benefits of no ozone depletion potential and no phase−out schedule.

The McQuay team also modified the machine room to accept a new building automation system (BAS), which Liddi expects to have in place by summer 2008. “Another benefit of the McQuay chillers is the BACnet® open standard protocol communications that allows easy integration with a BAS. The allowed us to select a best−of−class BAS system,” Liddi says, noting the BAS system by Automated Logic Corporation is provided and installed by RCMS Controls, Inc. “In addition to having the new chillers control the peripherals like pumps, we’re going to tie the chillers to control the operation of the two cooling towers.”

To help ensure that Ascent Media clients have continuous programming, the McQuay team connected the chillers to a backup power generator. “The ability of the new chillers to automatically restart following a power failure is another big plus. Our old units required a manual restart following a delay, which resulted in a temperature increase,” Liddi says, adding the startup of the chillers under emergency power requires very little inrush current.

Incentive to go green

The incentive program run by Connecticut Light & Power on behalf of the customer−funded Connecticut Energy Efficiency Fund allowed Ascent Media to greatly reduce its investment costs in the new McQuay equipment. In May 2008, Ascent Media executives proudly received a $260,000 incentive check from Connecticut Light & Power at Harbor Plaza, with the McQuay representative in attendance.

Larry Winchell, energy engineer with Connecticut Light & Power explains the program was designed to incentify owners to replace chillers 25 years and older due to their inefficiencies. “Southwest Connecticut is considered a load pocket because there is such a high usage of electrical power here. Eliminating and reducing kilowatt demand in the region is quite important due to congested transmission and dense population in the area.”

Winchell says Connecticut Light & Power promotes the use of energy−efficient equipment and the compressor technology of the McQuay frictionless chillers is an excellent example of new technology that reduces energy consumption. “Reducing a lot of demand, especially on those hot August days when demand peaks, is quite significant,” Winchell says.

Adding up the savings

Liddi reports the Mcquay equipment allows Ascent Media to save 40 percent on an annual basis in consumption costs at Harbor Plaza. “It was preventive to some degree, but it also helped us take advantage of two financial benefits: the incentive from Connecticut Light & Power and the operating cost savings of the energy−efficient McQuay equipment,” he says.

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