



# The HVAC&R Industry

A weekly eNewsletter from ASHRAE



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Advancing HVAC&R to Serve Humanity  
And Promote a Sustainable World

*The HVAC&R Industry*, ASHRAE's free weekly eNewsletter for HVAC&R professionals, provides relevant, timely information about industry and technology for people who create healthy, comfortable indoor environments.

## Industry News

### Study Links Health, Building Temperatures

BERKELEY, Calif.—Research by the U.S. Department of Energy's (DOE) Lawrence Berkeley National Laboratory suggests that operating buildings more efficiently could benefit the health of occupants. The study of 95 buildings showed that occupants had significantly more health complaints when the building was overheated or overcooled. In summer, building-related health symptoms increased by more than 50% in the buildings kept below 73.4°F (23°C). In winter, buildings heated above that temperature were associated with approximately 30% to 80% more building-related symptoms. The study has been published online in the journal *Indoor Air*.

### Stimulus Law to Benefit Energy Projects

LOS ANGELES—The newly signed economic stimulus package will invest nearly \$79 billion in renewable energy, energy efficiency and "green" transportation. Provisions include \$4.5 billion for energy upgrades to federal buildings, \$4.5 billion in federal matching funds to upgrade the U.S. energy grid and \$5 billion to weatherize residences.

### Plan Would Create 'Solar Energy Colony' in Arizona

NEW YORK—A group of western states' governors and the federal government are studying a plan to make Arizona a solar-energy "colony" for 11 other states, two Canadian provinces and Baja California. Under the plan, large-scale solar-power plants would be built across the Sonoran Desert, with power lines up to 300 ft (91 m) high. A square mile of desert covered with solar panels could furnish about 100 MW of power, says the Western Governors Association, whose \$1 million study is funded by the U.S. Department of Energy.

### U.S. Tops in World for Wind Power Installation Capacity

BRUSSELS, Belgium—The United States has passed Germany to become the country with the most wind power capacity, according to the Global Wind Energy Council (GWEC). New U.S. wind energy installations in 2008 were more than 8,000 MW combined, for a total installed capacity of more than 25,000 MW. China remains the fastest-growing location for wind power. Its total capacity doubled for the fourth year in a row. The global market for wind turbine installations in 2008 was about \$47.5 billion.

## ASHRAE News

### ASHRAE Updates Guide for Buildings in Hot and Humid Climates

*The ASHRAE Guide for Buildings in Hot and Humid Climates* has been expanded and revised for its second edition. It includes four new chapters providing guidance on reducing energy consumption and mold risk, and lowering the cost of mechanical

systems. Other new chapters cover quantifying and reducing cooling and dehumidification loads, and designing more economical ventilation systems. In all, the guide was expanded from 124 to 316 pages.

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#### Feature of the Week

##### **Efficiency Plus Reliability**

**By Christopher Kurkjian, P.E.**, Member ASHRAE; **Jack Glass, P.E.**, Member ASHRAE; and **Geoffrey Routsen, P.E.**

According to the authors, although reliability is still the driver for the majority of enterprise data centers, significant reductions in energy can be attained without reducing system reliability through the incorporation of free cooling, variable speed drives, condenser water reset, operation of the chilled water system at temperatures greater than the standard and the application of heat recovery systems whenever possible. This article reviews the major actions taken to reduce energy consumption in a recently constructed enterprise data center in the northeastern U.S.

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#### Product News

##### **Laboratory Exhaust System From Greenheck**

SCHOFIELD, Wis.—Greenheck offers the Vektor-MD mixed-flow blower for hospital, pharmaceutical, university, biotech and other laboratory applications. It features a high-plume dilution nozzle and windband that entrain additional ambient air to mix with the potentially hazardous exhaust fumes. The additional air dilutes the lab effluent and increases the discharge flow and velocity.

##### **Boiler Chimney Systems From The Schebler Company**

BETTENDORF, Iowa—Schebler introduces the eVent™ series of prefabricated chimney systems for high-efficiency, condensing boilers. The systems are designed to extend equipment life, reduce material, space and installation time. The structural integrity of the systems requires fewer hangers and support plates than traditional systems. Versions include additional insulation to diminish condensation and protect from freezing. It also enables tight installations by reducing clearance to combustibles.

##### **Flow Meters From Sierra Instruments**

MONTEREY, Calif.—Sierra Instruments announces the Max-Trak® Model 180 industrial mass flow meters and controllers with 316 stainless steel flange mounting. The devices communicate to user workstations via RS-232, RS-485 or one of four analog signals.

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