



*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

#### 'Chameleon' Tiles Change Color Based on Temperature

CAMBRIDGE, Mass.—A team of recent MIT graduates has developed roof tiles that change color based on temperature. The tiles become white when it is hot, allowing them to reflect away most of the sun's heat. When it is cold they turn black and absorb more heat. The team's measurements show that the white tiles reflect about 80% of sunlight, while black tiles reflect only about 30%.

#### George Lof Dies, Solar Energy Pioneer

ENGLEWOOD, Colo.—George O.G. Lof, Ph.D., a pioneer in the solar power industry, died this month at 95. He created one of the earliest known solar power installations, at his own home, in 1945. Lof, an ASHRAE Fellow, was active in the Society for decades. In 1988 he received the F. Paul Anderson award, ASHRAE's highest honor for living members. He founded the Solar Energy Application Laboratory at Colorado State University and was a lifelong advocate for solar power. He resided in a solar home he built in 1956. The system was still operational, largely without maintenance, at the time of his death.

#### U.S. EPA Ranks Schools for Renewable Energy Use

WASHINGTON—The U.S. Environmental Protection Agency's Green Power Partnership has ranked the 20 K–12 schools in the U.S. that use the most power from renewable energy sources. The 20 schools receive from 6% to 100% of their electricity from renewable sources. Eleven of the 20 schools are in Maryland, New York or Texas.

#### Oversight of ENERGY STAR Weak, Says DOE Audit

WASHINGTON—The U.S. Department of Energy (DOE) does not properly track whether manufacturers that give their appliances an ENERGY STAR label have met the required specifications for energy efficiency, according to an internal audit. Some manufacturers could be putting ENERGY STAR labels on unqualified products, according to the audit by DOE's inspector general.

#### \$3.4 Billion Earmarked for Smart Grid Development

WASHINGTON—U.S. President Barack Obama has announced \$3.4 billion in funding for projects to support smart grid development. Much of the funding will support upgrades to utility power grids, including the installation of more than 200,000 smart transformers, which will enable utilities to replace units before they fail. Utilities will install sensors that will cover the entire electric grid in the contiguous United States to better monitor grid conditions. The grants also will pay for more than 2.5 million smart meters, which allow customers to regulate their electricity use.

**Stop  
overpaying  
to overheat  
your boiler  
water!**

**SmartPlate  
Water Heaters  
work with  
condensing  
boilers in  
low-temp  
systems.**



**AERCO  
SmartPlate™**

**AHR EXPO**  
ORLANDO, FL  
January 25-27  
**2010**

[www.ahrexpo.com](http://www.ahrexpo.com)

## ASHRAE News

### Winter Conference Technical Program to Focus on Humid Environments

The 2010 ASHRAE Winter Conference will focus on making indoor environments sustainable in humid climates. "The technical program features a mix of presentations and papers concentrated in 11 tracks, including the impact of ASHRAE Standards 90.1 and 62.1, sustainability, and a combined *Energy Conservation and Alternative Energy Solutions* track, the largest track," said Dennis Wessel, chair of the Orlando Conference. The Conference will be held Jan. 23–27 in Orlando, Fla.

## Feature of the Week

### Mixed Mode Ventilation: Finding the Right Mix By Erin McConahey, P.E., Member ASHRAE

This article presents an overview of ASHRAE guidance applicable to spaces using natural ventilation, suggests an early-phase decision-making methodology for designs, and compares a collection of mixed mode projects in the San Francisco Bay area that have applied natural ventilation.

## Product News

### Heat Pump From Mitsubishi Electric

SUWANEE, Ga.—The CITY MULTI Y-Series heat pump from Mitsubishi Electric HVAC distributes capacity from one zone of a building to another to use only as much energy as needed for each zone. Ten outdoor models are available; each can control from 13–32 indoor units.

### Circulator From Grundfos

OLATHE, Kan.—The SuperBruteXL circulator from Grundfos features a three-speed, wet-rotor design for application flexibility. Models feature threaded flange ports to make it easy to install the machine and to add accessories such as sensors and gages.

### Tankless Water Heaters From Keltech

DELTON, Mich.—CN and SN Series ASME- and NB-certified tankless water heaters from Keltech are available in a variety of kW capacities and flow rates. They are designed to be an energy-efficient alternative to boilers in commercial and industrial installations.

## Subscription Management

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is an international membership organization founded to advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related issues.

[Privacy Policy and Terms of Use](#) • [Disclaimer](#)

All contents copyright © 2009

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

1791 Tullie Circle, NE, Atlanta, GA 30329-2305.

The Only Specialty  
Jobs Board for  
HVACR Engineers

