

# Utah ASHRAE April 6<sup>th</sup> Tech Session/Lunch Meeting

**Date:** Friday, April 6<sup>th</sup>, 2012

**Presenter:** William P. Bahnfleth, PhD, PE, Department of Architectural Engineering, Pennsylvania State University, University Park, PA and ASHRAE Distinguished Lecturer

## Technical Session

### THERMAL ENERGY STORAGE IN THE ERA OF SUSTAINABILITY

During the 1980s and 1990s, cool thermal energy storage (TES) was a key technology in US utility demand-side management (DSM) programs. Interest in TES declined steeply as incentives disappeared during utility deregulation. Today, the focus of design has shifted from energy cost savings toward sustainability and it is reasonable to ask whether TES has anything to offer in this environment. This presentation will review the essentials of cool thermal energy storage and examine its relevance to sustainable design. Specific issues examined will include the impact of TES on site and source energy consumption, the economic case for TES without the incentives of the DSM era and the role of TES in achieving net zero energy buildings and communities.

## Lunch & Presentation

### THE ASHRAE BUILDING ENERGY LABELING PROGRAM

Whether voluntary or mandatory, the rating of the energy use and indoor environmental quality of buildings is a growing trend worldwide. In 2009, ASHRAE introduced its own "Building Energy Quotient" (bEQ) labeling program for new and existing buildings and is now in the process of piloting it in a number of locations around the U.S. It is an ambitious program comprising not only the development of an energy use performance scale, but also tools and procedures for performing ratings and certification of the qualified energy modelers and building assessors needed to implement it. This presentation will provide an overview of the bEQ program, describe its relationship to other building certification programs in the US and elsewhere, identify the potential benefits of certification, and summarize the current state of implementation of the program and plans for the future.