

ENVIRONMENT®

Chelsea Group's Newsletter of Building Science Applications
For Owners, Asset Managers, and Property Managers of Real Property

Fourth Quarter, 2009

HIGHLIGHTS

Breaking Story:

Climate Change and Carbon Tax

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Cold Weather Warning:

Moisture Management

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Learning Opportunities:

"ASHRAE Winter Meeting"

Orlando, FL, January 25-27

"Hawaii Real Estate Forecast"

Honolulu, January 22

"FMA Congress on Energy"

Weston, FL, February 1-3

"GLOBE 2010"

Vancouver, BC, March 24- 26

"IFMA Facility Fusion"

Philadelphia, April 13- 15

Available on the Web:

www.chelsea-grp.com

"Sustainability in Real Estate
Asset Management: A Case
Study"

"Chelsea Group Property
Assessments"

"Chelsea Group Sustainability
Dashboard"

"In the LEED at World Trade
Center 7"

"Managing Water Damage in a
Dorm"

CLIMATE CHANGE AND CARBON TAX: WHAT HAPPENS NOW?

With slim progress at Copenhagen in climate talks and a Congress distracted still by a monumental health bill, climate change and carbon tax issues seem to be smoldering in the wings. How far will this go and what will be the impact on US commercial and institutional property owners? It's tempting to simply say, "Who knows?" But the situation appears a little more defined than that.



Photo: Scott Johnson, Solar Dock

The message points look something like this:

- The Copenhagen agreements showed some signs of directional agreement among the US, China, and India in what might become support for a global carbon trading arrangement
- With the Kerry-Graham-Lieberman Senate initiative and the House efforts by Waxman, it appears that something is likely to be hammered out in 2010
- US EPA regulatory initiatives on carbon hang over heavy industry as a motivation to support better legislative solutions

Chelsea CEO, George Benda, commented: "Prognostication is always risky; reducing carbon emissions at each property through energy conservation really is not." He added that present schemes make it likely that property owners would see secondary impacts of carbon taxation or trading in higher energy costs. "Right now it looks unlikely that there will be immediate regulatory or tax impacts for non-industrial sites," he added.

Benda explained that if just the 108 properties that have completed Chelsea Group's detailed analysis implemented their energy conservation programs, carbon emissions in the US could be reduced by an estimated 60,000 tons per year. At present utility rates, that produced an estimated Internal Rate of Return (IRR) on the projects of about 40%. "In my mind, the smart money is on reducing consumption of fossil fuels because the IRR will only improve as the impacts of any carbon tax or trading scheme come into play," Benda concluded.

EVENTS

MUNN RECOGNIZED AS ENERGY ENGINEER OF THE YEAR FOR 2009



Chelsea Group's Chief Technical Officer, Dave Munn, PE and LEED AP, received recognition in December as Energy Engineer of the Year for Region V by the Association of Energy Engineers. Munn also was recognized as a Legend in Energy at the same meeting in Washington, DC.

BENDA ADDRESSES USGBC

Chelsea Group's CEO, George Benda, presented the financial case for sustainability management to the Chicago Chapter of USGBC on December 9, accompanied by the first blizzard of the season.

APS RECOGNIZES CHELSEA AS A TRADE ALLY IN ARIZONA

Phoenix-based electrical utility, APS, boasted the success of its Solutions for Business program by saluting its trade ally, Chelsea Group. The APS program announced rebates totaling \$17 million producing energy savings valued at \$312 million since 2006.

CHOCK PRESENTS THE CASE FOR HAZARD VULNERABILITY ASSESSMENTS

Chelsea Group's Regional Technical Manager, Kevin Chock, presented the case study of a Hawaii small shopping center and its HVA during BOMA Hawaii's Disaster Preparedness Week in November.

MOISTURE MANAGEMENT ISSUES CONTINUE TO DRIVE UP CAPITAL AND OPERATING COSTS

'Tis the season for cold climate moisture problems. Often thought of as a problem only for hot and humid climates, moisture really assaults cold climate buildings during the winter. A roof that melts snow faster than surrounding areas can be a good hint. And don't fool yourself thinking that mold doesn't grow in cold climate conditions, either. Chelsea Group continues to help its Northern climate clients through these challenges.



No one, of course, wants to be recognized for their moisture problems. So the case discussed here will remain blinded. An undisclosed property in the Northern Midwest had a series of unexplained fire alarms. Inspection to resolve this troublesome problem revealed that the sensors for the alarms were heavily corroded. This was the result of moisture building up in the interstitial space between the upper floor and the roof. When the building engineer climbed into the space, it was one of those "uh-oh" moments.

Chelsea Group provided an on-site assessment of the impacted building.



The assessment addressed both the condition and likely causes of the problem. The oriented strand board (OSB) sheathing of the roof and some of the structural elements were heavily moisture damaged, clearly from repeated exposures. Some sections of the OSB were sagging from the moisture damage. Heavy biological growth was also found.

"The worst damage was above an indoor swimming pool, where moisture accumulated on the cold roof surface over the past several years," explained Ian Cull, PE, a building scientist with Chelsea Group. "It appeared that the dehumidifier was not working and the attic area had very limited ventilation," he added.

Chelsea Group provided the outline of a solution in the report from the first visit and projected repairs to the roof, ventilation design, and HVAC systems to correct the problem. Despite the lump of coal in their Christmas stocking, the property is on the path to better quality and lower cost operations as a result of the recommendations.

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