

Getting Your Books in Order with Energy and Carbon Accounting

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I look at humans as a wholly owned subsidiary of the planet and to date, insofar as our contribution to the bottom line of the planet as a whole, I'd say the ink is all red.

We're doing OK for ourselves in the short run, while almost guaranteeing a 22nd century that will make people long for the Dark Ages. But there are signs that we're getting our act together and developing the tools to help us live within the zone of life that is about a quarter of the thickness of an eggshell if the Earth were the size of an egg.

As we move into the 21st century, we are increasingly realizing what a poor job ego-nomics does in reflecting our true wealth as a species. Enter accounting for environmental liabilities from toxics to carbon and, soon, to water.

Consolidated energy reporting and carbon accounting is one of the principal reasons Safeway -- in addition to many of its impressive corporate sustainability initiatives -- has implemented the Hara EEM system to support its Greenhouse Gas and Sustainability Initiative.

About a year ago, I wrote about water being the 800-pound gorilla hiding in the bush waiting to ambush unwary developers, and now Ceres raises new alarms about the vulnerability of large water users to potentially catastrophic changes in water distribution as the symptoms of global weirding become more apparent.

Building developers, owners and managers ought to go through a risk assessment exercise to evaluate how they might respond to increasing water scarcity and to create a water efficiency "cost curve" showing the most cost-effective measures to save water, such as the new plug and play irrigation water conservation technology from ET water systems.

Our good friends at the Rocky Mountain Institute, as part of their drive to Reinvent Fire, have teamed up with Ford to roll out a greener dealership. (Please hold the carping about the oxymoron -- it will be a long time before cars go away, and if the alternative is a "regular" dealership, I'll go with a more resource-efficient facility any day.) Light-colored paving can reduce by up to 25 percent the number of fixtures needed to produce a given outdoor illuminance. Capital cost savings on poles could be used to purchase high-efficiency light sources such as LED area lights, which would shoot the energy savings for lighting dealer lots up into the 70-75 percent range.

As I've noted earlier, lighting efficiency is one of those lunches you are paid to eat and Honeywell is really taking advantage of this fact, guaranteeing energy savings for the city of Antioch, Calif., on Phase II of its \$4.65 million building and street light energy efficient retrofit project.

It's a truism in business that failure to innovate is to guarantee mediocrity. Although American industry in general has been one of the world's most prolific investors in research, the construction industry has been a conspicuous exception.

One abject failure of the U.S. with regards to buildings is its lack of knowledge about building science. Historically, our annual government budget for building research would be an embarrassment for just about any European country except Luxembourg. Which is why I'm thrilled that the Obama administration's sponsorship of the Energy Regional Innovation Cluster (E-

RIC) with funds principally from the Department of Energy, with additional support from the Commerce Department, the Department of Education and the National Science Foundation. All told, about \$130 million will be invested in E-RIC over the next five years which, given the importance of the building sector to economic productivity and America's gross ecological footprint, would more appropriately be a one- to two-year budget, but it's way better than nothing.

Finally, we are about to see a brave new world in the green product market with the Green Products Association. Whether the GPA can overcome all of the noise in the sector remains to be seen, but I'm always a fan of "better late than never."

The latest Look-Grandpa-I-picked-up-the-\$20-bill-you-said-was-fake-but-it's-real! award goes to the EPA Energy Star Leaders for saving energy worth nearly \$50 million in 2009. The 58 organizations are too numerous to name here, but together they reduced emissions by a cumulative 220,000 metric tons, an amount equivalent to that used by 39,000 homes. Now that's leadership.

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