

The Green Energy Newsletter,

Written by Architects and Engineers - for Architects, Builders, Developers & Real Estate Professionals.

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GREEN FUZZIES: *Happy Saint Pattie's Day ... "Erin Gah Braugh" and all that... Many celebrators will see it through a fuzzy green haze. And that is our subject today FUZZY GREEN. Two issues back, the newsletter exposed Green Washing and Laughable LEED. And today in honor of the Green, here are two articles about fuzzy headed green thinking. Or as my sainted Irish Grandmother used to say, "Haste makes Waste".*

WEARING OUT THE GREEN: Top o' the marning te ye... Hev ye heard the Blarney about the wonderful energy savings everyone thinks they're havin'... wid de compact fluorescent light bulbs (CFL's)... Weel, there might be a wee bit o' truth there, aye... but it's mostly blarney!

Indeed, the savings may not be all that great, according the Canadian company B.C. Hydro. This is because those old so-called "energy-wasting" incandescent bulbs actually "wasted" much of their energy producing ... heat... That's right, they helped heat the house, whereas CFL's do not.

Think about it. In the wintertime, if you are using those CFL's, you'll have to replace the missing heat not being generated by those incandescent bulbs you got rid of, and you'll most likely do that by turning up your furnace... Did they forget to mention that in all the advertising hype about the CFL's? And you didn't find it mentioned anywhere on the CFL package either? Imagine that.

This holds true whether the power you would have "wasted" in that incandescent light comes from hydro-electric, which the majority of our power on the West Coast does, or whether it comes from wind, photovoltaic, or other sources of "clean" energy. On the other hand, because all the Green Energy Codes discourage using electric resistance heating, your furnace probably burns gas, oil or coal, which of course, will generate a great deal more CO2 than your CFL light bulb saved.

Restated: "CFL's produce less heat than incandescent bulbs, but because the loss has to be made up by using fossil-fuel burning heaters, they increase green house gases". That's right, B.C. Hydro, the third-largest utility in Canada says that the CFL's required by the tighter lighting efficiency regulations "will increase Green House Gas emissions in their service territory by 45,000 tons due to cross effects" – the cross effects of this switch to CFL bulbs.

Oh, and did I mention how easy those CFL bulbs are to dispose of? Not! No trash company wants them... They have to be returned to the store where you bought them to dispose of them.

Who knew? It always pays to think a thing through before passing legislation mandating its use. Isn't that why we have engineers? But, what legislature asked them?

THE GREEN POINT RATINGS TRAP: Nearly every municipal jurisdiction in the Bay area rushed to make their new Green Building Codes agree with GreenPoint Ratings' excellent suggestion that new construction residential properties should be 15% more efficient than Title 24. Of course, GreenPoint was talking about being 15% more efficient than the existing 2005 Title 24.

This idea worked really well with the 2005 standard model for Title 24, but Title 24 is a moving target. In fact, California has tightened up its energy code quite a bit between 2005 and 2009. So much so that the new 2009 standard model for Title 24 is itself actually 15% more efficient than the old 2005 standard model was.

Let's calculate the compound interest. If the local building code says your residence has to be 15% more efficient than Title 24 (and believe me, it does not define that as meaning 15% more efficient than the old Title 24!) then what these two 15% improvements do is compound the efficiency requirements at 32.25%.

So, after August 1, your new construction house will now have to be 32.25% more efficient than the 2005 Title 24. Frankly, as an energy modeler, I don't think it can, except very expensively, and with very small windows.

Maybe we need to take the 15%-under requirement out of GreenPoint Rating? Who knew?

I plan to interview a Building Inspector who is also an engineer and who also knows about this problem in the next few days... Stay tuned.

GREENISH BROWN GUEST COLUMNIST: Despite my own rhetoric and beliefs, I'm not very green in my lifestyle. Everything I eat or use comes out of a package - burritos, milk, laundry soap. The effort it would take to not participate in our throwaway culture would be enormous - kind of like being a raw foodie and having to spend hours each day purchasing fresh ingredients and preparing them to be palatable.

I think that the reason humans were able to evolve to sustain these big, glucose-hogging brains that we have, is that agriculture gave us increased access to carbohydrates such as roots and grains, and cooking enabled us to digest and assimilate more nutrition with less digestive effort. Raw food may be healthier now that we have access to a widely varied diet, but following such a time-consuming regimen is a luxury.

"Green" seems to emphasize personal sacrifice for collective gain, but personal gain might be a better motivator.

People aren't lazy, they're just efficient. Daily life routines should be a no-brainer. Once we go through the effort of establishing new patterns of living, and accept perhaps a greater level of inconvenience in one area in trade for benefits in another, we can then follow the new procedure without thinking about it. There might be some bonuses, such as not having to take out the trash as often, improved health, and a more personalized, small-town shopping experience.

Apparently the hardest part about building green is not the design, it's whom you hire as a builder, and whether THEY know green practices and sources. Even so, building green seems to cost more, because it adds yet another set of constraints on top of the ones already there (design, budget, codes, community input, etc.), and doesn't necessarily add immediate and tangible benefits for "the user experience". The developers may gain general PR points: feeling good, looking good, maybe some savings in fuel costs (but maybe not!), and tax credits. People who actually work in those buildings don't always like it any better.

Green shouldn't be only about work. It should be fun, and it should have an immediate payoff in terms of better, not just greener, environments.

GREENISH BROWN is written by RED REE, Certified Evil Twin (CET) and cynical humorist. Stay tuned for more!
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REMEMBER WE DO TITLE 24 - If you have questions on any aspect of Green Energy, Sustainability, LEED, Green Point Ratings or Title 24, simply give Alan or Mark a call at (415 391-0186) to discuss your Title 24 documentation needs or any Green Energy Subject. **We provide the best Title 24 service in California**, through the synergism of an Architect and an Energy Engineer working together to enhance your project.