

Taking the LEED in energy efficiency

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There is a push on to make buildings more energy efficient. This is in part being accomplished by making them meet [LEED Standards](#) [1]. What does LEED stand for? Leadership in Energy and Environmental Design. LEED promises to "Reduce harmful greenhouse gas emissions". But the leading greenhouse gas in the public imagination is CO₂, and plants love the stuff. In fact indoor growers often enhance CO₂ concentrations to many times the atmospheric levels in order to make their plants grow faster and produce more. When did CO₂ become harmful when it is so helpful to plants?

How about some other LEEDing ideas? What do they accomplish? Let me quote:

Participation in the voluntary LEED process demonstrates leadership, innovation, environmental stewardship and social responsibility.

Note that LEED is not a standard for accomplishment. It is a "demonstration" or signaling method. You don't have to be good. Just look good by meeting the standards. You then get certified and you can tell all your friends about how socially responsible you are.

Take the school building [documented here](#) [2]. Lots of bicycle racks for a building that is practically inaccessible by bicycle. I suppose you have to carry your bicycle to the campus on an automobile bike rack that adds weight and aerodynamic resistance to your car. The net energy savings from that are probably negative. But there is a nice sign in place near the bicycle racks explaining how having on campus bicycle racks is environmentally friendly.

Or take the person who wanted a solar powered building documented in [this video](#) [3]. To get that solar power he needed to cut down 100 year old trees that gave more energy savings from shade in the summer than the solar cells could have possibly provided. And the trees did it at no further costs. The architect was depressed.

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Here is a group that is [suing the LEEDers](#) [4]. They state in part:

The class action lawsuit also seeks to bring claims on behalf of trades, taxpayers and persons who design energy efficient buildings and who suffer injury by L.E.E.D.'s "monopolization" of the market through its fraudulent and intentionally misleading representations.

The allegations are sweeping. Plaintiffs allege that L.E.E.D.'s "rating system is not based on objective scientific criteria," and that the "rating system is not based on actual measurements but rather computer modeling of anticipated energy use levels of a building's performance." Plaintiffs contend that the USGBC used a "skewed" sample in forming its determination of L.E.E.D.'s claims. The Complaint further argues that the USGBC's decision to use "mean energy use" as opposed to "median energy use" misrepresents the truth, which Plaintiffs say "would show a mean average energy use value of 105, which is 29% higher than the mean average energy use" of the United States Energy Consumption Survey's catalog of 5,215 buildings constructed as early as 1920. The bottom line is that the Complaint alleges that L.E.E.D. buildings perform worse than conventionally built structures.

If proven true, the whole L.E.E.D. certification movement may drop dead in its tracks. Of course, it is too early to form any judgments. Scientists and judges will need to sift through the data to find the objective truth.

The electronic industry is not immune to the green religion. Microprocessors are touted that save milliwatts. Excellent. Except that if they control kilowatts it would be better to focus the design effort on reducing the overall energy use by .1% rather than cutting microprocessor power use in half. This is especially so if the new micro requires a new design, different components in inventory, and a whole host of things that make the energy savings inconsequential in the larger scheme of things. The trouble is we can measure the energy the micro uses. But there is no measure for energy tied up in inventory. All we have to go on there is dollars. And usually only direct dollars at that. The energy costs of storing parts in inventory are not part of the data.

M. Simon's e-mail can be found on the sidebar at [Space-Time Productions](#) [5].

Engineering is the art of making what you want from what you can get at a profit.

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<http://www.ecnmag.com/blogs/2013/04/taking-leed-energy-efficiency>

Links:

[1] <http://www.usgbc.org/leed>

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[2] <http://archive.mises.org/13812/compliance-models-equals-nonsense/>

[3] <http://youtu.be/JJ9-jYfpwfw>

[4] <http://www.dblaw.com/2011/01/is-l-e-e-d-%C2%AE-green-building-certification-a-scam/>

[5] <http://spacetimepro.blogspot.com/>