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Grandeur of Delusions

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Misperceptions about energy complicate efforts to save.



A recent study—[Public perceptions of energy consumption and savings](#)—conducted by researchers at Columbia University, Ohio State University and Carnegie Mellon University found two broad categories of energy saving actions people could take, curtailment actions and efficiency actions. Curtailment actions—turning the heat off or down—were seen as saving the most energy, while efficiency actions—installing insulation or a new boiler—were seen as saving less energy. It's actually the other way around.

The problem is that the actions people intuitively perceived as having the biggest value actually had the smallest savings. Making retrofits, for example, saves far more energy than turning down the heat a few degrees. [This confusion](#) throws a serious kink into efforts to make policy changes that promote energy efficiencies—and might speak to the need for more gradual mandates to promote efficiencies in the residential sector.

The trend in the energy efficiency field has been to address financing. I [write about it constantly](#). How can we make it cheap and easy for homeowners to make capital intensive energy retrofits to their houses? The idea of Property Assessed Clean Energy (PACE) financing [is one](#), for example, I touted as an important tool for making this happen.

Now I am leaning for even bigger changes like a [constitutional amendment](#) to allow state and local government to make loans. I am still a fan of the [energy concierge](#) idea, especially if it can use public and private resources the way [Clean Energy Works](#) has in Portland or [Sustainable Connections](#) is starting to in Bellingham.

But this study points out a significant problem when trying to make big economic and social change. People don't behave like machines, calculating every possible financial and energy implication. It feels important to turn off a light when leaving a room, but changing out the light bulb to a compact florescent light has some short term costs that are discouraging.

And the fact is that the former doesn't save as much energy—or money—as the later. By way of analogy, the light bulb is really a micro example of what is happening in the residential sector economy wide: people won't or can't spend some money now to save a lot more in the future. The study suggests better education which would certainly help. But it points out something that I have long believed which is that

Increasing fossil fuel prices to reflect the true environmental costs of CO2 emissions would also provide strong incentives for learning and behavior change.

I'll say it if nobody else will. Duh! To be fair, increasing energy prices alone might not help right away and there is the obvious problem that such increases would disproportionately affect the poor, who [actually pay more](#) for energy than rich people. But in terms of interventions that make a difference I can't help but resort to another analogy from my days as [Tobacco Tsar](#). Of all the different interventions intended to persuade people not to start smoking and to quit once they did, price was the single most effective intervention. The [higher the price](#) of cigarettes climbed the lower the prevalence rate.

I still think we need to work on financing, education, on-bill payments, and especially a concierge function that coordinates the various project management functions needed for large-scale residential retrofits. But the study points out [yet again](#) that when it comes to change, a nudge is often needed. Mandates that improve standards in the [building code](#) and appliances, for example, are probably going to have to be part of the mix. Requiring that energy efficiency be part of building inspections when homes are [bought and sold](#) is another example of pushing efficiencies along.

Thinking that we can incite massive retrofitting in the residential sector with financing fixes all alone is perhaps the biggest delusion of them all.

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