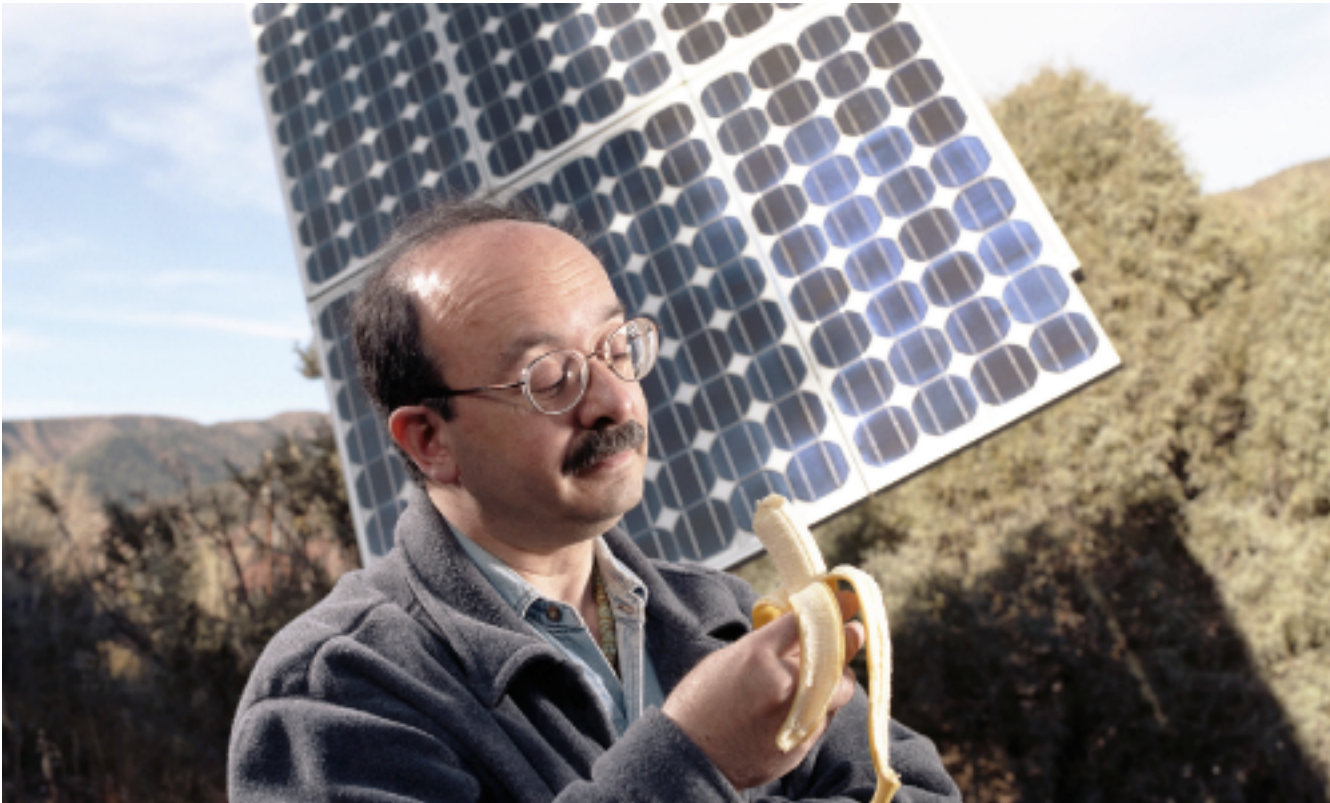


Labor of Lovins

The cofounder of the Rocky Mountain Institute talks about America's path to becoming more energy efficient

By Tracie Mcmillan



Lovins savors the fruits of his labor: a banana grown inside his energy-efficient home. (Photo by Ben Stechschulte/Redux)

Amory Lovins might not be a household name, but the ideas he's put forth for the past 30 years have affected virtually every household in America. Increasing energy efficiency, supporting small and local power generation from renewable sources, and building smart rather than big are just a few of the concepts he's promoted. Lovins started when he was 29, using the energy crisis of the late '70s to reach President Carter's ear. This year, the Rocky Mountain Institute, the nonprofit organization devoted to energy research he founded with his wife, celebrated its 25th anniversary with a forum attended by luminaries such as

Thomas Friedman of *The New York Times* and Majora Carter of the nonprofit Sustainable South Bronx. *Plenty* stole a few minutes of Lovins's time to discuss ultralight cars, an indoor banana garden, and why efficiency is the best alternative fuel we've got.

What are the easiest ways for Americans to do what you propose: boost energy and financial efficiency?

The best known one is to unscrew an incandescent bulb and put in a compact fluorescent—you get the same light, it uses five times less electricity, and it lasts about ten times longer. And next time you're going to buy a household appliance, get the American Council for an Energy Efficient Economy's guide to the most energy-efficient appliances (aceee.org); you can get them two or three times more efficient than normal, and typically they don't cost more.

Those are pretty common tips. Are there bigger changes to make?

Actually, it's easy to build a very efficient house. But you have to optimize the whole system for multiple benefits, and that's a way of thinking many people aren't used to. A super-insulated window, for example, isn't just insulated—it actually has ten different benefits.

If green building is so easy, why aren't more people doing it?

The information on how to do it is not very widespread. Some of the big merchant builders are picking up on it, but they have a long way to go. Most people don't understand they can do it, or contractors say it will cost you more or you won't like it.

In the late 1990s, you talked about selling Hypercars—ultralight vehicles made out of carbon fiber. Are you driving one yet?

I've been driving the same car since 2000 or so—a Honda Insight, which is a two-seat, aluminum hybrid that gets 64 miles per gallon. We could actually do about 67 miles per gallon with a carbon-fiber midsize SUV; that's how light carbon fiber is.

A lot of traditional environmental work has focused on pushing for greater government regulation, but you argued early on that it's more effective to show businesses that they could save money by going green.

I think most of the changes we need in the world will come from innovative technology and design rather than regulations. There are three main loci of power and influence in our society: business, civil leadership, and government—generally in decreasing order of effectiveness. Because we at the Rocky Mountain Institute want to get things done, we work almost entirely with the private sector and very little with government.

You like to make the point that living efficiently doesn't have to take sacrifice, that we can keep our creature comforts. But don't we need to use fewer resources?

Efficiency is already our biggest energy resource by far—and we have barely scratched the surface of how much it's worth. With today's better technologies, if we fully applied them, we could save over half our oil at a fifth of its price, three-quarters of our natural gas at an eighth of its price, and three-quarters of our electricity at an eighth of its price. That is enormously bigger than what we've done so far.

Say we solved efficiency. What's next?

The shift from big power plants to small ones in making our electricity. In 2005, micropower—cogeneration of electricity and useful heat in factories and buildings, or decentralized renewable sources of electricity other than hydropower—provided one-sixth of the world's total electricity and one-third of the world's new electricity. In fact, if you add up micropower and “negawatts” (electrical savings), they now provide more than half the world's electricity. And centralized power stations, for which we were told there was no substitute, provide less than half. Why? Because they cost too much and there's too much financial risk involved.

Your home in Colorado is such a showpiece for eco design that you offer regular tours. What's your favorite part of the house?

Coming in out of a midwinter snowstorm at 7,100 feet in the Rockies, where it can get as cold as minus 47 degrees, and there you are in the banana jungle, where I've harvested 28 crops so far. And then you realize there's no heating system—I didn't need it. We have airtight construction with lots of ventilation through air-to-air heat exchangers that recover most of the heat you would otherwise lose. So the building uses one percent the normal amount of energy for heating space and water. And the bananas are really tasty.
