

High Country News

FOR PEOPLE WHO CARE ABOUT THE WEST

High Noon for solar

Randy Udall | OPINION | Jul 5, 2012 | *Web Exclusive*

You know what fries my bacon? In 2011, Germany installed more solar power in one year than Americans have in 50. If it were just the industrious Germans, I could probably handle it. But the laid-back, Fiat-driving Italians did the same thing. The Italians!

The technology was invented at Bell Labs back in the 50s, when Eisenhower was president. Solar photovoltaics is as American as the hot dog is, but our country has never mounted a sustained effort to commercialize it. It's as if Steve Jobs invented a cool phone some years ago, then put it on a dusty shelf to be ignored for a handful of decades.

Thanks to NASA, we know that solar is the best way to power a satellite. It's also great for ocean buoys and highway signs and off-grid cabins. But unlike wind energy, which meets 10 percent of Wyoming and Colorado electricity demand, solar has yet to achieve 1 percent in any state.

So here's the question: Is solar just a cute diversion, like having a llama carry your backpack, or does it have the oomph to make a serious dent in the energy appetite of a populous country?

Is solar a toy or a tool? A llama or a mule?

The world may have learned the answer on a sunny weekend this May, when tens of thousands of solar installations on rooftops, factories, churches and farm fields in Germany produced 22 gigawatts of electricity. That's a stunning amount of

power, equal to that provided by 20 large nuclear or coal plants, as much power as takes to run the Rocky Mountain states.

The solar storm sweeping Europe has been driven by innovative policies that guarantee solar owners 20 years of lucrative payments. In America, we've always been told, "Keep your hands off that power line." In Europe, governments encouraged their citizens to "withdraw your money from the bank and redeploy it on your roof." And so they did, to the tune of \$150 billion.

Last year, Italy installed more solar every few months than California has in 50 years. Homeowners, church congregations, retirees, businessmen ... anyone can play, and many have. Farmers have been particularly keen. Why grow hay, when solar is 10 or 20 times more lucrative?

This boom has been all the more remarkable because suntans are rare and clouds are common in northern Europe. In contrast, a typical roof in the Rockies receives a deluge of sunlight, often exceeding 100 horsepower at high noon. Until recently little was captured for good use. We've dammed all our rivers, but never considered our roofs.

It's not that Americans don't like solar. On the contrary, it appeals to veterans, vegans, rednecks, techno-geeks, enviros, survivalists and hedge fund managers. But until recently, most of us haven't had much use for it, because it was too pricey.

But costs have plunged. A system that once was \$20,000 now sells for \$8,000, thanks in part to China. Numerous companies will lease such a system to you, no money down, guaranteeing you lower bills from day one. Unlike cars, which always need attention, solar has no moving parts. This is smokeless fire, as free of trouble as of carbon. It's a sexy technology, well worth marrying.

And it's getting a new look. Kit Carson Electric recently dedicated a 1.5 Megawatt system near Taos that will help power 30,000 homes. San Miguel Power Association in western Colorado is building a \$4 million system of similar size to serve the resort town of Telluride. In the last decade, Holy Cross Energy customers have installed \$30 million worth in the Roaring Fork and Eagle River valleys of Colorado.

Here in the Rockies, solar remains twice the price of wholesale power, but for retail customers generating your own is both a profitable and thought-provoking proposition. Someone once said that energy is the original currency. If so, what is money? The dollar is supposed to be a store of value, but as Yogi Berra once said, "A nickel ain't worth a dime anymore."

Experts keep telling me inflation is low. But why is gold \$1,600 an ounce, and a loaf of bread as expensive as a gallon of gas? Could it have anything to do with the way politicians are printing money -- \$5 trillion worth of new debt since 2008?

I'm not sure. But I've run the numbers, and they suggest that a solar electric system could pay me 5 percent for decades to come. No, the sun doesn't shine at night, but it comes up fairly reliably every morning. Maybe this could be a good partnership, the sun and me.

Randy Udall is a contributor to Writers on the Range (<http://www.hcn.org/wotr/high-noon-for-solar/>), a service of High Country News ([hcn.org](http://www.hcn.org) (<http://www.hcn.org/wotr/>)). He writes and consults about energy in the Roaring Fork Valley of western Colorado.

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