Feeling smug about your solar rooftop? Not so fast

January 26 2016, by Severin Borenstein, University Of California - Berkeley

Credit: Wikimedia Commons

If you installed solar panels on your roof and feel aglow with environmental virtue, you may be in for a rude awakening. There's a good chance someone else has purchased your halo and is wearing it right now.

In most states (including California) power generated by rooftop solar panels earns Renewable Energy Certificates, which quantify how much clean electricity they produce. But if panels are leased or installed under a power purchase agreement, it's the "third-party owner"—not the homeowner—who gets those certificates. Most then turn around and sell the RECs, which magically turns some other brown electrons green.

Here's how it works: Joe's Solar puts panels on your roof that produce 7,500 kilowatt-hours a year, and Joe sells you the electricity under a power purchase agreement. Because Joe still owns the panels, he gets credit—in the form of RECs—for that renewable electricity. Meanwhile, Bob's all-fossil utility wants to "green up" so it buys the RECs from Joe. That allows Bob to relabel 7,500 kilowatt-hours of its coal or gas-fired power generation as "renewable energy."

It may sound strange, but a market to sell or trade RECs can be extremely useful. California, for instance, has a mandate for its utilities to use 33% renewable power by 2020, but some parts of the state have little sun or wind resources. Still, utilities in the best locations for renewables, can produce more than their requirement and then sell the extra RECs to areas where it would much more costly, or impossible, to hit the target. Thus, the RECs market allows a utility in one area to finance additional green energy production in another area where it is cheaper, supporting more carbon reduction at a lower cost to consumers.

That seems sensible enough. But something's wrong if the buying and selling utility companies both claim that green power as their own. That, however, is essentially what's been going on with solar rooftops.

Today about 70% of new solar systems are owned by third parties that typically resell the associated RECs to a company with a well-publicized goal of being "carbon neutral" or to a power company that wants to claim it's delivering a high percentage of green energy. (Homeowners are notified of this in the fine print of their contracts, which they probably never read.)

One might see this as a creative way to make both the solar homeowner and the REC buyers feel good about saving the planet. But the Federal Trade Commission is a real killjoy when it comes to such double counting of virtue.

The FTC recently issued legal guidance that says if a solar company sells certificates, it is deceptive to tell homeowners they are getting "clean," "renewable," or maybe even "solar" electricity with their lease or power purchase agreement. The FTC guidance uses this illustration:

A toy manufacturer places solar panels on the roof of its plant to generate power, and advertises that its plant is "100% solar-powered." The manufacturer, however, sells renewable energy certificates based on the renewable attributes of all the power it generates. Even if the manufacturer uses the electricity generated by the solar panels, it has, by selling renewable energy certificates, transferred the right to characterize that electricity as renewable. The manufacturer's claim is therefore deceptive.

To be clear, there is nothing necessarily wrong with installing solar panels in one location and letting someone in another location claim credit, as long as everyone understands that is what's happening. But many individuals who signed up for a rooftop solar system might be unhappy to learn that they were enabling some fossil-powered company to claim it has gone green.

The lesson here is that if you choose to go solar, find out what will happen to the RECs. If they are sold to someone else, you still get to use the electricity, but you have to give back the halo.

More information: *Severin Borenstein is the E.T. Grether Professor of Business and Public Policy at U.C. Berkeley's Haas School of Business and a Research Associate of the Energy Institute at Haas.*

Provided by University of California - Berkeley