

# THE NORTHWEST CURRENT

HOME & GARDEN

## Friendship Heights homeowner saves green with installation of solar panels

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From the front of David Frankel's house in Friendship Heights, you'd never know that he's an energy baron. Sometimes, he's actually selling electricity to Pepco.

Frankel's new solar energy installation, which runs off panels on the back of his roof, doesn't just save him money on the electricity he used to buy from the utility. He also automatically sells power back when he's making more than he needs.

The panels connect to a device called an inverter in the basement, which converts the DC power that they reduce to the AC power used by the house. The system also has an additional option that might interest anyone who has lived in

Washington through a summer storm season: a battery backup — similar to a backup generator. If the power fails and the sun's not out, he still has about 48 hours of electricity for key appliances like his refrigerators, microwave, sump pump and some lights. It will last even longer if there's sun to keep recharging the batteries.

Often, it's not cheap being green, but with current D.C. and federal incentives, Frankel's system, installed by GreenBrilliance of Herndon, Va., will end up costing him half its actual price.

"I've always wanted to be green," says Frankel, "but I would not have done this without the government incentives. It would not have been financially feasible."

To start, the federal government offers a

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tax incentive of 30 percent. Then, D.C. offers what Sumit Bhatnagar of GreenBrilliance calls "an extremely attractive program." For the first three kilowatts of capacity installed, he explains, the homeowner receives \$3,000 per kilowatt. The reimbursement steps down from there, with \$2,000 each for the next seven kilowatts, and so on. In Frankel's case, the result is that his nearly \$40,000 installation will end up costing him less than \$19,000.

With the system up and running only since July, it's too soon to judge how much Frankel will save on his electricity bills, although he says of his most recent bill, "I was very pleasantly surprised."

And you might be disappointed to know that he cannot watch the meter dial spin backward when he's making extra power to sell back, because the new style of meters has a digital display. (The totals there don't change fast enough to watch — he tried it.) But on the equipment in his basement, he can see it happening: Another digital display is constantly calculating a number that changes twice a second. "The higher the number is, the more that I am selling to Pepco," he says.

Another perhaps surprising aspect of the project is that Frankel can also sell renewable energy credits, and the payback from these is substantial. In some localities, including D.C., utilities pay a penalty per megawatt if they don't derive a certain amount of their electricity from renewable sources. To offset this, they can buy credits from others who produce renewable power. The utilities won't deal directly with people like him who are "small potatoes," Frankel says, but there are brokers who will buy credits from him and sell them to Pepco. The exact amount of the deal is

confidential, but, says Frankel, "this is actually probably the biggest savings."

Frankel estimates that it will take about eight years for his system to pay for itself.

Bhatnagar says that for most homeowners, payback can come in about half as long, and for most D.C. homes, a suitable system of three kilowatts, without a battery backup, is usually around \$24,000, about half of which may be paid for by the incentives.

Bhatnagar says those interested have several factors to consider, with the very first being whether their roof is suitable for solar panels. You need enough roof space for large, flat panels — if you have many obstructions, like different roof elevations or windows you may be out of luck. It's also critical that the roof be exposed to the sun from the south, southwest or west, without shading from surrounding trees and structures. If you're not sure, give his company a call and they can determine your roof's orientation without even visiting your house — they'll look up the aerial view on Google Earth and take it from there.

Frankel is enthusiastic about all aspects of the project: the savings in the long run, what he feels it adds to the value of his house, the process and, most of all, the environmental effects. He has nothing but praise for GreenBrilliance, which he says was professional, neat and great to work with. He says even Pepco was helpful and responsive.

And as someone who has always thought about being green — Frankel talks about the old car he drives rarely and his support for a failed bottle-deposit bill in D.C. in the 1980s — he's pleased that the electricity he generates means that much less coal burned and less foreign oil bought.

Grants for the new fiscal year will be available in October. Details on the program are available at [green.dc.gov/green/cwp/view,a,1244,q,461562.asp](http://green.dc.gov/green/cwp/view,a,1244,q,461562.asp). GreenBrilliance's Web site is [greenbrilliance.com](http://greenbrilliance.com).



Matt Petros/The Current  
**David Frankel installed solar panels atop the roof of his Northwest home.**

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