



## Home Improvement

### The Blackout-Proof Home

Betsy Schiffman

For **Steven J. Strong**, founder and president of Harvard, Mass.-based **Solar Design Associates**, a solar building design firm, this summer's massive blackout is the best sales pitch he's ever had.

Strong was on the 11th floor of a mid-rise building in New York City when the lights went out. As it happened, he was meeting with an architect about building a solar-powered electric system in a new residential high-rise in Lower Manhattan's Battery Park.

"The blackout certainly demonstrated the fragility and the vulnerabilities of an overused [electric] system," Not surprisingly, Strong says, "the meeting went well."

Last week's blackout was a costly wakeup call to 50 million North Americans who, in a matter of nine seconds, lost electricity in the Midwest, Northeast and parts of Canada. The economic costs of the blackout--including tax revenue, city services, and so on--are expected to climb to the \$5 billion mark. Economic toll aside, it was psychologically jarring to the many people who were caught at home in the dark without flashlights, candles, canned food, water, gasoline or cash.

As many people discovered last week, in an emergency situation, many things--such as the local radio station's ability to transmit news, or a wireless provider's capacity to connect phone calls--may be out of the individual's control. The good news is that, with proper planning, you don't have to be left in the dark the next time the lights go out.

Today there are a number of different products and practices that can partially or entirely eliminate people's dependence on energy from the grid. Many of the devices in question have the further advantage of being environmentally responsible. But for many, ecological concerns are secondary to the desire to prevent milk from spoiling or air conditioners from shutting off.

When Strong founded Solar Design Associates in 1974, his clients were mainly high-net-worth individuals looking for independent power sources for their private islands or remote country homes.

"In the 1970s and 1980s, there were a lot of West Coast Hollywood types and a lot of New York financial types interested in solar power, but they mainly fell into two categories of people," Strong says. "There were the committed environmentalists and the technology adapters that are keen on having whatever's hot."

Strong's recent projects--including work at the White House--may be indicative of how much more seriously solar power is being treated in the 21st century, versus the faddish fascination it held for some people in previous decades.

These are busy days for alternative-energy providers and advocates. In fact, **Oscar Belfiore**, president of **OKSolar.com**, a solar equipment manufacturer based in Miramar, Fla., typically sells four solar generators per month. During the past week alone, Belfiore has sold five generators, which cost about \$10,000 apiece.

The advantages to solar energy are obvious: Any home or building running on an independent power source isn't subject to wildly vacillating energy prices, much less emergency outages or shutdowns. Many buildings in New York with privately operated generators (including the majority of the hospitals) didn't lose electricity during the blackout.

However, in large cities like Chicago or New York, not everyone has a roof or backyard where you can install eight to ten solar panels (which may be about two feet by five feet in size). **Generac Power Systems**, based in Waukesha, Wis., sells standby electric generators that cost between \$2,000 and \$13,000, and provide between 7,000 watts and 45,000 watts of electricity, which is fueled by natural gas or liquid propane vapor. The generators can run for an undetermined period of time, so long as there is a large fuel supply, but if a generator is frequently used for long periods, it could shorten its lifespan. And to put those numbers in perspective, a refrigerator may require between 500 and 1,000 watts, while a lightbulb may use 60 watts.



The fee for installing generators usually starts at \$1,000. Although some models are smaller in size, the highest-end generator is not a dainty little thing that can be hidden in the closet. In fact, the largest Guardian standby generator is about eight feet long, three feet wide and four feet tall, so in large cities like Chicago or Manhattan where space is scarce, the rooftop of a building is probably an apartment dweller's only option.

Assuming that for whatever reason power is lost, there are a wide variety of solar-powered and battery-powered products to provide backup for appliances. There are, for example, solar-powered cell phone chargers, batteries, as well as solar-powered laptop batteries, solar-powered house lights, garden lights and even solar-powered pool heaters.

Also, for home offices, companies such as **American Power Conversion** sell a backup UPS (uninterruptible power supply) system, which costs \$299 and gives the end user about three additional hours after a blackout begins to close out of any applications or work on the computer before data get lost. A less expensive model costs \$40 and buys "just enough time to complete your transaction or save your work, and then gracefully shut down your system," according to **Ron Catanzaro**, the product manager of consumer networks solutions there.

[Click here to take a closer look at products that can keep you well-lit during future blackouts.](#)