

# OPINION

TODAY'S DEBATE **REBUILDING AFTER SANDY, PART I**

## Our view

### USA's 20th century power grid fails its 21st century economy

At least two things are predictable whenever a big storm hits the heavily populated and heavily treed Northeast these days:

► Vast numbers of trees and power lines will go down, leaving millions of people without electricity, not just for a few days but for a week or more. As of Monday, two weeks after Superstorm Sandy struck, more than 120,000 customers were still without power in New York and New Jersey. Much the same happened last summer after an abrupt and powerful "derecho" storm struck the mid-Atlantic, and long outages are routine after winter snow and ice storms.

#### Bury electric lines, harden substations and improve utility management

► Once the storm passes, utility officials and politicians will say there's little to be done but to string up new lines in the same old places and brace for the next disaster.

This cycle can't continue.

Thanks to computers and smartphones, Americans are more dependent than ever on electricity. But the nation's 20th century power grid is incompatible with its 21st century economy and increasingly extreme weather.

Not every country's power grid is as easy to bring to its knees. A 2006 study by professors at Carnegie Mellon University found that Americans lose electricity for an average of 214

minutes a year, compared with 70 minutes for the British and 53 minutes for the French.

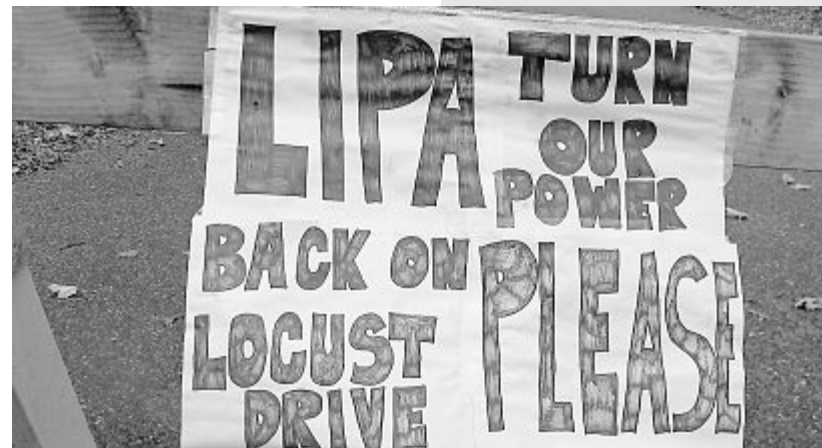
How can European power grids be three or four times more reliable than ours? One significant factor is that more of their power lines are buried, which makes them all but impervious to wind and falling branches.

"Undergrounding" power lines is more expensive than stringing them overhead, but utilities and regulators often present only the cost of burying all lines. A much smarter, cost-effective strategy is to bury the most important and trouble-prone lines.

The widespread flooding from Sandy compromised some underground lines, just as it destroyed electrical substations and the electrical panels in countless flooded homes. That's a separate problem, with separate and equally important answers. Those include hardening infrastructure to make it less vulnerable to floods, especially in coastal areas.

Another big part of the solution is raising the competence of utility management, which varies widely. In the Washington area, sustained public pressure is starting to improve the reliability and communication skills of Pepco, a company that until Sandy consistently underperformed neighboring utilities. In New York, the Long Island Power Authority, which saw 1 million of its 1.1 million customers lose power from Sandy, has come in for scathing criticism from Gov. Andrew Cuomo and local leaders for its slowness in getting the lights back on.

Power industry executives note that Sandy and the powerful nor'eas-



FRANK ELTMAN, AP

A plea to the Long Island Power Authority for electricity to be restored is posted on a barrier Oct. 31 in Mastic Beach, N.Y.

ter that followed were extraordinarily destructive, and that utility crews brought in from around the nation have struggled valiantly to restore power, often working 16-hour shifts for days on end.

The crews deserve plaudits, and yes, Sandy was extreme. But the utilities are not powerless. They can bury more key lines, harden substations and protect cellular communications, a vital link when disaster strikes. But that will happen only when pressure from the public, the news media and ultimately the regulators who approve rate increases makes it happen.

It won't be cheap. But the cost of recent power outages, in everything from lost productivity to spoiled food, ought to change the equation.

This is the first of two editorials on rebuilding after Superstorm Sandy. Next: Federal flood insurance.

## Opposing view

### Massive damage, heroic response

government, worked to restore power as safely and quickly as possible. The president played a pivotal role by ordering federal agencies to remove barriers and provide assistance.

A major component of this effort is the utility industry's voluntary mutual assistance program, which dispatches crews and equipment from unaffected regions. More than 67,000 workers, representing 80 companies from almost every state and Canada, responded to this crisis. In the aftermath of both storms, power is now restored to 99.7% of those who lost it. The efforts of these utility workers, along with the first responders and aid workers, have been heroic.

Storms like these inevitably raise questions about undergrounding power lines. The reality is no amount of infrastructure spending could have inoculated us from Sandy and its massive storm surge. Undergrounding protects systems from falling trees but cannot protect them from flooding. Drying, repairing and testing the system to ensure safety is complex and time-consuming.

This year, utilities are projected to spend nearly \$35 billion updating and reinforcing distribution and transmission systems. It is an essential investment. Americans deserve nothing less, and the utility industry's unwavering commitment is to deliver on this mission.

Tom Kuhn is president of the Edison Electric Institute, the association of U.S. shareholder-owned electric companies.

#### Tom Kuhn

As the electric utility industry has been working to restore power to 10 million customers who lost it in Superstorm Sandy and Nor'easter Athena, we are reminded how much the American way of life depends on electricity. We regret that anybody experienced outages, but nature can wreak havoc on an unprecedented scale. Sandy caused more outages than hurricanes Katrina, Andrew and Isaac, more than any storm in our nation's history. Our thoughts go out to all affected by the storm damage.

The lessons from these catastrophic events will help us anticipate future issues. For instance, public-private partnerships were essential: The utility industry, supported by federal, state and local