

Opinion: The New Orleans power outage shows how urgently a climate-resilient power grid is needed

Opinion by Rob Verchick

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Ask just about any New Orleanian to name the most exasperating thing about the aftermath of Hurricane Ida, and you’ll get the same answer. It isn’t the floodwater. Or the roof damage. It’s something more familiar but equally as threatening to life, health and property: power failure.

This week, Entergy, Louisiana’s largest power company, warned customers to brace for several days or even weeks without power. That means no light, no microwave oven, no refrigerator — and getting by on candles and canned food. It means no air conditioning amid an often-triple-digit heat index, no computer and no Internet, unless you can get online with a smartphone — which you don’t have power to charge. Gas stations are closed because electric pumps can’t pump. In some neighborhoods, toilets don’t flush because sewage plants have conked out.

The problem started soon after Ida made landfall, when all eight of our region’s high-voltage transmission lines failed. In one instance, a 400-foot-tall transmission tower supporting power lines spanning the length of more than 10 football fields across the Mississippi River crumpled like a foil candy wrapper.

When Hurricane Katrina drowned the city and killed power across the southern parishes 16 years ago, we learned only half the lesson. The federal government invested nearly \$15 billion to build a formidable flood-protection system.

This system defended the city admirably against Ida’s immediate danger. But the government did not pay similar attention to the power grid, and we’re feeling the pain now.

The nation’s aging electricity network is startlingly susceptible to disaster nearly everywhere. Climate change, which intensifies floods, storms and wildfires, multiplies the risk. Ida is only the most recent siren to blow.

In the past five years in the United States, storms have smashed or drowned parts of the grid in Texas (Hurricane Harvey in 2017; the winter freeze this year); the Southeast (Hurricane Irma in 2017); and, most tragically, in Puerto Rico, where Hurricane Maria knocked out 80 percent of the island’s electricity network in 2017, and 11 months passed before power was fully restored.

Making “the grid” more resilient is challenging because it is not a single entity but rather a conglomeration of thousands of power plants, millions of miles of cable and tens of millions of consumers. Some failures, as with Ida, relate to high-voltage transmission. Others, as in Texas this winter, involve fuel production and power generation, mainly with natural gas.

That said, the resilience recipe is simple.

First, harden the grid by armoring equipment against weather-related damage. Next, smarten the grid by updating technology to increase the network’s flexibility and responsiveness. Finally, green the grid by integrating renewable sources into new and existing networks.

Many wind and solar facilities survive storm conditions more successfully than their carbon-burning cousins. And obviously they don’t emit greenhouse gases that contribute to the storm-worsening climate change.

Grid modernization by the federal government is essential. The American Society of Civil Engineers estimates that, given current trends, the electricity network will need about \$500 billion in additional upgrades by 2040 to keep the U.S. economy sound. The current bipartisan infrastructure bill in Congress, backed by President Biden, provides a necessary first step, with a \$65 billion investment in power infrastructure that includes resilient transmission lines to support renewable energy.

State governments can help, too, by revising the revenue models that they impose on electric utilities. Current models, inherited from the early 20th century, reward investments in network expansion over modernization. Few directly encourage utilities to take into account future climate-based threats, such as rising seas or stronger storms. Instead, most utilities prepare their towers and substations for the weather trends of the past, then hope for the best. If states linked utility rate increases to preparing for climate change and greening the grid, utilities would follow along.

State residents, who understandably pay close attention to their power bills, should pay equal attention to infrastructure their utility is building with their money. If that infrastructure doesn’t follow the resilience recipe, they should object at public hearings and push regulators and lawmakers to take climate disaster more seriously.

I’m lucky to have what few members of my community do: a home generator. Its furious thrumming keeps the lights on and draws a stream of neighbors stopping by to cool off, recharge batteries or refrigerate bottles of medicine.

But that shouldn’t be necessary. A resilient power grid would keep the power and lights on even during a natural disaster. We all can have it if we pull together as a society and plan ahead.

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