

POWER STRUGGLE

America’s Backup Plan

Wary of being left in the dark, homeowners and businesses are increasingly producing their own power—if they can afford to

By JENNIFER HELLER

As the American electric grid becomes less dependable, a growing number of businesses and homeowners are buying their own power systems to protect themselves from being left in the dark.

Twenty years ago, only 0.57% of U.S. homes worth \$150,000 or more had installed backup generators, mainly along hurricane-prone coastlines, according to backup-power provider Generac Holdings Inc. Now the number is 5.75%, a 10-fold increase.

Manufacturers delivered more than 143,000 generators last year in North America, up from 138,778 in 2015, despite pandemic-related supply-chain logjams, said Lucrecia Gomez, a research director at consulting firm Frost & Sullivan. Microgrids, which can create islands of power for campuses, businesses or neighborhoods amid a blackout, grew more than sevenfold between 2010 and 2019, according to the industry group Edison Electric Institute.

Many entrepreneurs now consider secondary power systems to be a necessary cost of doing business. Steve Peterson, who owns Hungry Howie’s Pizza franchises in Michigan, learned their value in 2003, when a massive blackout knocked out power to much of the Midwest and Northeast. Mr. Peterson had invested in backup generation—and said he had lines of people who wanted a hot meal stretching 200 to 300 feet out the door.

“It was like people were waiting in line for concert tickets,” Mr. Peterson said, adding that the generators paid for themselves in a few days. Since then he has grown

The backup power system at a Hungry Howie’s franchise paid for itself within days.

from about four locations to 15 in Michigan, all with backup power.

New systems cost around \$25,000 per location, he said, but help avoid the seven to eight power outages each year that would otherwise cause him to throw out food. “You can sleep at night,” he said.

Reliability isn’t the only driver of the power-independence trend. The cost of renewables have fallen enough that some companies are adding on-site renewable energy to reduce their use of power from the electric grid or to meet corporate sustainability goals.

Whirlpool Corp. installed wind turbines near a dishwasher factory in Findlay, Ohio, where a large share of electricity generation comes from coal, after it started tracking its greenhouse gas emissions. The turbines don’t supply all of the factory’s power, but provide electricity at a locked-in price for 20 years.

“It’s not just green,” said Ron Voglewede, global sustainability lead at Whirlpool. “It’s also just cheaper.”

The ability to add battery systems to homes to store large amounts of power is a relatively new market, tied to the rise in solar-panel installation. While battery costs have plummeted, adding them often extends the time it takes for home solar to pay off, said Chloe Holden, an analyst with Wood Mackenzie. People are installing them nonetheless.

After a winter storm knocked out power to most of Texas last February, home solar company Sunrun Inc. said traffic to its website spiked 350%. In California, the company said orders for solar paired with battery storage rose following devastating wildfires and policies by utilities such as PG&E



The backup system at the Holly Hall Retirement Community, above, has become a selling point for residents, right. Pastor Gregory Manning and Broderick Bagert, below, want to bring solar power to 85 New Orleans spots, like the Broadmoor Community Church, bottom.



Corp. to shut off electricity in certain areas during high winds to reduce the risk that downed power lines could spark fires.

Microgrids such as those sold by Enchanted Rock Holdings LLC provide backup power for customers such as grocers, data centers and water plants that never want to go dark. The natural gas-powered systems can operate independent of the grid or sell power into the grid when electricity prices are high. New customers have included pharmaceuticals manufacturers and senior-living centers—

the kind of businesses that used to consider outages “a one-off and nothing really to protect against,” said the company’s chief executive, Thomas McAndrew.

Houston’s Holly Hall Retirement Community experienced about four eight-hour outages each year before installing one of the microgrids. Now, “the lights don’t even flicker” during storms, said Amy S. Ward, a senior director at Holly Hall.

The nonprofit previously depended on diesel generators, but running out of fuel would have re-

quired an evacuation—and potentially imperiled the health of residents, many of whom rely on medical devices that need power to operate. During last year’s winter storm, with the power out across much of Texas, residents stayed warm and the microgrid fed power into the state grid. Holly Hall touts the consistent power supply on its website: “Take a deep breath, and relax,” it reads.

After losing power and discovering that his fireplace was “more for decoration” than warmth during the Texas freeze, Tyler Troutman invested about \$10,000 in a generator that will keep the power on the next time the grid fails. “Both my wife and I work from home, so we have Zoom meetings,” Mr. Troutman said.

Not everyone can invest in backup power, though. When Hurricane Ida knocked out the eight transmission lines carrying electricity into New Orleans in September, many people spent days in the dark.

Brenda Lomax-Brown, president of the city’s Hollygrove-Dixon Neighborhood Association, said median incomes of around \$30,000 made it difficult for many in the area to evacuate or afford generators. Challenges included spoiled food, the inability to refrigerate medicine, and the difficulty for the elderly to find a place to stay cool.

Cell phones died and cut off communications.

“People were desperate,” said Ms. Lomax-Brown.

New Orleans nonprofits are now stepping in to try to provide emergency power. Together New Orleans, a coalition of religious and civic groups, is raising money to add rooftop solar with batteries to 85 congregations and community centers. Their goal is for everyone in New Orleans to be a mile or less away from what they are calling “community light-houses,” said Gregory Manning, pastor at Broadmoor Community Church.

“You get the ordinary benefits of solar, but if and when the grid goes out, you’ve got a real network that can respond,” said Together New Orleans organizer Broderick Bagert.

Another nonprofit, Feed the Second Line, has launched a “Get Lit, Stay Lit” effort to add similar systems to neighborhood restaurants.

“After a major hurricane, there’s no gasoline, there’s no driving around the city. The logistics are impossible,” said Feed the Second Line board member Devin De Wulf. “What we need is to go block by block, neighborhood by neighborhood and make sure that there’s little hubs of resiliency that are already built in.”

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