

Summer Outages Are Coming

Is Your Facility Prepared?

On-site microgrids provide facilities with reliable energy during extreme weather that threatens utility blackouts and price increases.

Bloomberg News, the Wall Street Journal — almost every week we see news articles warning of more summer outages than ever before. The U.S. is experiencing [more outages](#) than other industrialized nations. Meanwhile, heatwaves, droughts, and wildfires are only becoming more common. The [energy transition](#) is here, and it's going to be a bumpy ride for the next 10-20 years.

At the same time, the grid is shifting towards more intermittent renewables and shutting down existing power plants, leaving utilities with a thin reserve margin. This leaves large power users exposed to the risk of extended brownouts or outages.

On-site microgrids ensure facilities have reliable, affordable power during peak events, regardless of the state of the grid.

Extreme Weather Increases the Risk of Utility Blackouts

Early May should be too early for a heatwave, even in Texas. But already this year, grid operators expecting 105° temperatures across the state were forced to [issue a grid outage warning](#) and take action to stave off rolling blackouts. Nonetheless, some outages occurred as warned. Texas reached an almost record high in energy demand while generators and transmission operators scrambled to complete repairs and weatherization of a rapidly decaying grid.

The state avoided most blackouts during the grid usage spike, but not all. For instance, the utility shut off some [Austin area customers](#) due to the high demand, which exceeded [71 GW](#) ahead of the summer peak season (75 GW is the record summer demand). At the same time, electricity prices rose sharply, reaching [triple](#) the average near Houston.

Across the U.S., many states are seeing the impact of extreme weather, both during specific events or over time due to changing climate conditions. California officials have warned their state will experience an [energy shortfall](#), as extreme heat, wildfires, and regulatory issues put additional strains on the grid.



The Midcontinent Independent Systems Operator (MISO), responsible for operating the grid through most of the Midwest, recently [warned](#) of summer outages as well: “Under typical demand and generation outages, MISO is projecting insufficient firm resources to cover summer peak forecasts.”

Retiring Power Plants Leaves the Grid With Fewer Reserves

Retiring natural gas and coal plants means shifting loads to intermittent energy sources like wind and solar. But this leaves the grid more vulnerable to outages during extreme weather events, as there is less idle capacity to make up for the shortfall. This is true across the country. In the Midwest, MISO is retiring [~27 out of ~101 GW](#) of power, or about a quarter of the load, which will lead to tighter reserve margins even as load forecasts rise. Meanwhile, New York has retired the [nuclear plant](#) that provided 25% of New York City’s power.

This reduction of capacity isn’t always intentional. From 19.2% of California’s generation in [2019](#), hydroelectric generation in the state dropped to 11% in [2020](#) then fell 48% below the 10-year average in [2021](#). The loss of this historically reliable power source poses a problem for a state that depends heavily on renewable power, placing even more stress on small amounts of dispatchable capacity.

Public policy doesn’t always get the outcomes right. Texas is a notable example. After the [winter storms](#) of February 2021 left millions without power, policymakers were determined to prevent a repeat of this tragedy. Since then, however, Texas grid capacity has [risen 15%](#), but only in wind and solar, while demand has also risen. This leaves the state vulnerable to intermittency issues, as seen in [April 2021](#) when the state asked customers to conserve energy due to low wind production. Treating wind and solar as reliable dispatchable baseload generation can lead to brownouts and utility outages.

An On-Site Microgrid Offers Facilities Resilient Power and Predictable Energy Costs

The energy transition is here, with all the issues that entails. Facilities can avoid the ups and downs of this transitional period by opting for an on-site microgrid to ensure they have reliable, affordable power during peak events, regardless of the state of the grid. In most cases, microgrids can also support a company’s sustainability goals and reduce carbon footprint by including combined heat and power (CHP), solar, or batteries.

Unison Energy offers turnkey microgrid solutions designed to put the power for facilities back in owners’ control. We design, build, operate, own, and maintain the microgrid, providing the expertise and the financing through an Energy Services Agreement (ESA), allowing your site to save money on electric and thermal, lower carbon footprint, and ensure energy resiliency.