

Energy Resiliency in California

Is Your Facility Ready for Another Season of Shutoffs and Rolling Blackouts?

Facing utility shutoffs and rolling blackouts, facilities in California and other Western states need microgrids if they hope to weather repeated utility outages.

Every summer, extreme weather sparks another season of power outages on the West Coast, with utility shutoffs and rolling blackouts becoming the new normal. Winters bring disruptive weather too, with storms, flooding, and record snow levels adding stress to the grid. Facilities can take back control of their power needs with an on-site microgrid designed for energy resiliency.

Although microgrids typically operate in tandem with the utility, providing as much as 95% of a site's power needs, during an outage they isolate from the utility in island mode and cover 100% of the facility's power. Microgrids that use natural gas engines, frequently in combination with solar, can keep your facility fully operational for days or weeks on end while providing sustainability benefits and cost savings.

With the state facing years of ever-worsening weather, microgrids offer California facilities a long-term energy solution.

California Facilities Face Multiple Energy Threats

California heatwaves are becoming more frequent and intense, leading to record-breaking events on an almost annual basis. Heatwaves cause electricity use and costs to soar, and the grid can't always compensate for the strain. Historically, the 2022 heatwave was one of the worst of the past 40 years, causing record energy demand, and the state only avoided power blackouts by urging customers to cut power usage. In 2020, a heatwave led the California ISO to impose the state's first rolling blackouts since 2001, leaving nearly two million people in the dark for days.

Since 2019, several of the state's utility companies used public safety power shutoff (PSPS) events in advance of high winds and other risky weather, in order to avoid sparking dangerous wildfires. In the first year alone, these shutoffs had an economic cost of \$500 million, impacting 2.5 million people in 30 counties.

For California facilities relying on expensive, temporary backup generators, a better, long-term solution is possible. Sites with high energy needs or a low financial tolerance for outages, like hospitals, manufacturing facilities, and data centers, need to invest in a long-term yet cost-effective solution for energy resiliency: microgrids.



Unison Energy Microgrids Offer Resiliency and Savings

Unison Energy provides clients with a solution to take control of their power. Using a 10 to 20-year [energy services agreement \(ESA\)](#), Unison Energy can design, install, and operate a microgrid for your facility with no upfront capital required. Your facility pays only for the energy you use, while foregoing the risks associated with extreme weather events and aging utility infrastructure.

Our microgrids provide on-site power generation. The system normally operates in parallel with the utility typically covering 95% of energy needs. During utility outages, the microgrid controller opens breakers to isolate itself and operate independently from the electrical grid until service is restored. Microgrids are capable of providing enough energy to match the site demand for single buildings or complex multi-building campuses. Facilities in shutoff zones can use microgrids to potentially save millions of dollars in losses and stay operational to serve their communities during extreme weather events.

Microgrids can also lower your carbon footprint year-round. Cogeneration is based on the highly efficient use of fuel to produce both electricity and thermal energy, saving a California facility 25-30% in carbon emissions (and up to 60% in other states). Our microgrids can incorporate additional technologies to cover peak loads, like solar panels and battery storage, for additional renewable benefits.

In addition, our service operations and remote monitoring teams provide continuous monitoring and preventive maintenance year-round, as well as hands-on 24/7 attention during island mode events. Whether you're facing a heatwave or winter storm, you will have a dedicated team ready to keep your facility operational.