



Drastic Measures

Power Shutoffs an Inflection Point for Power and Water Providers

By John Egan

Millions of California homes and businesses lost power last October and November after the state's three investor-owned utilities implemented public safety power shutoffs.

These shutoffs—which had varying effects on publicly owned electric utilities, water agencies and community choice aggregators—may become a driver in ongoing public policy debates about climate change and the provision of essential water and electric services across the state.

The recent public safety power shutoffs implemented by the state's three investor-owned utilities—Pacific Gas & Electric, Southern California Edison and San Diego Gas & Electric—darkened as many as 2.6

million homes and businesses across at least 40 counties in California, creating an economic loss exceeding \$2 billion, according to an estimate from the Stanford Woods Institute for the Environment.

The shutoffs were intended to reduce the risk that shorting or failing utility equipment would start wildfires during high winds, high temperatures and low humidity. In windy conditions, tree branches and other vegetation can fly into power lines and cause a spark.

The widespread shutoffs proved to be an inconvenient solution to a vexing problem. The Kincade Fire in Northern California and the Saddleridge Fire in Southern California in October 2019 ignited at or near utility equipment, according to fire investigators. The Kincade Fire burned 77,758 acres of land, and the Saddleridge blaze scorched about 8,800 acres of land, according to the California Department of Forestry

and Fire Protection.

Clifford Chan, director of operations and maintenance at the East Bay Municipal Utility District, has trouble reconciling the shutoffs with the longtime utility mandate to provide essential electricity services that are safe, reliable and affordable.

“PG&E instituted rolling blackouts in 2005, but they were able to tell us exactly which circuits would go out when and for how long,” said Chan, who’s been with East Bay MUD for 22 years. “But the PSPS are a whole different animal. I would never have thought that some customers could be turned off preemptively, and with little notice about which circuits could be affected or how long the customers would be out of power.”

Those who California Water & Power spoke with agreed the shutoffs likely will factor into ongoing discussions about utilities, climate change and the wildfire mitigation

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plans that all electric utilities—public and private—were required to file by January 2020.

HOW AGENCIES WERE AFFECTED AND WHAT THEY DID

No publicly owned utility in California implemented similar widespread preemptive power shutoffs last fall. But the IOUs’ power shutdowns affected some of the state’s publicly owned electric utilities, water agencies and community choice aggregators.

Customer call volume surged for many public agencies as anxious customers wanted to know if they would lose power.

Many POU communicators expanded their communications activities before, during and after the shutoffs, using media briefings, social media platforms such as Twitter and Facebook, emails, texts and the neighborhood social networking app Nextdoor to provide customers with information on the shutoffs.

Some agencies communicated with customers in multiple languages, including Spanish and Vietnamese. Community choice aggregators urged their customers to register with their IOU to receive wildfire safety alerts.

MCE (formerly known as Marin Clean Energy), a CCA, made its solar-powered electric vehicle chargers available at no cost for two days during one of the shutoffs. MCE also opened its large conference rooms to the public to provide access to electricity for cellphones and other portable device charging.

Confusion and chaos characterized communications for PG&E’s first PSPS, implemented in early October. PG&E’s website went down several times. When it was up, maps of affected areas were not always accurate.

There were sharp criticisms of



With wind speeds up to 88 mph and an elevated risk for a wildfire, SCE made the difficult decision to turn off power to some customers in Mammoth in mid-September.

Photo courtesy of Southern California Edison

PG&E’s performance during the October shutoffs. Paul Hauser, general manager of Trinity Public Utilities said PG&E’s communications in early October were “completely inadequate.”

“The PSPS turned our first-world electric system into a third-world system, with no certainty about when the power would go out or when it would come back on,” Hauser said. “If that happened on my watch, I wouldn’t be here for long. Californians won’t tolerate that kind of deterioration in an essential service. Remember, Gov. Gray Davis was recalled for less.”

WATER AGENCY PERSPECTIVES

Although both electricity and water are essential to life, water arguably is the more essential service. Most people can live a day or two without electricity. It’s difficult to live a day or two without water.

One water agency, Oakland’s East

Bay Municipal Utility District, began planning for the power shutoffs more than a year before they happened. During the summer of 2018, following the CPUC decision granting IOUs the right to preemptively de-energize their electric distribution systems during red flag warnings, East Bay MUD began to assess how it could respond in the event of a shutoff.

It issued a request for proposals for the rental and predeployment of 29 backup generators—adding them to the 40 portable generators and pumps the district already deployed on its system—to ensure water and wastewater service would not be interrupted if PG&E turned off the power, according to East Bay MUD’s Chan, the district’s director of operations and maintenance.

During a three-day PSPS outage in early October, East Bay MUD lost power at about 140 of its 400 facilities. But the agency’s 1.4 million customers were not affected because

the district had invested more than 4,000 staff hours in preparation and \$750,000 to plan for and respond to the shutoffs.

East Bay MUD developed an operational mitigation plan that included drills in the field as well as back at headquarters, planning exactly how it would respond in the event of a power shutoff. Exercises included sending electricians out to the field to test the generator interconnections with East Bay MUD facilities.

“All the planning really paid off,” Chan said. “Without the preparation, our customers would have felt an impact.”

POWER AGENCY IMPACTS

A number of POUs—including Redding Electric Utility, Burbank Water & Power, Los Angeles Department of Water & Power and Riverside Public Utilities—reported their electric service was unaffected by the October and November shutoffs.

Operationally, the biggest impact most POUs faced was a spike in customer calls asking if they would lose power.

But not all power agencies reported such benign results. Randy Howard, general manager of the Northern California Power Agency, said some of the agency’s geothermal generation at The Geysers was affected by PG&E’s October power shutoffs.

“The distribution system around The Geysers was shut down several times,” he said. “About half of our employees who work there couldn’t get to work if they didn’t refuel their vehicles before the PSPS closed down public gas stations.”

During the late-October PSPS events, Howard said several NCPA members were impacted by PG&E’s transmission-level de-energizations.

One public power community, the city of Healdsburg, was given three hours’ notice before the PSPS event on the transmission line that delivers power to their community. Healdsburg officials and NCPA scrambled to get PG&E to extend the timeline for the shutoff because the entire community was being evacuated to get out of the way of the Kincade Fire.

PG&E Gets Understanding, Some Appreciation

Even those highly critical of PG&E’s performance in the shutoffs recognized that, facing a no-win choice, the utility acted to save lives and property. Losing power may be unpopular, but a temporary loss of electricity would cause far less disruption than a wildfire caused by failing utility equipment that led to the loss of lives, homes and businesses.

No one wanted to see a repeat of the 2018 Camp Fire, which destroyed the town of Paradise and killed 85 people.

Several individuals recognized the magnitude of the challenge facing PG&E. “PG&E faces a huge challenge,” said Catherine Elvert, communications manager for the City of Palo Alto Utilities. “They serve an incredibly large area, a lot of which is heavily forested. They have to contend with a lot of uncertainties, including changes in weather forecasts and wind patterns. Even before the recent wildfires, PG&E was under a lot of scrutiny over safety issues. They invoked the shutoffs out of an abundance of caution.”

Some officials contacted by California Water & Power even thanked PG&E for its efforts to keep critical infrastructure operating during the shutoffs.

Ross Branch, public affairs manager for Placer County Water Agency, expressed appreciation for the embattled utility moving about 10 megawatts of portable generation hundreds of miles from Southern California to Placer County so the agency could continue running its backup water-supply system during the power shutoffs.

Branch said PG&E didn’t charge PCWA for renting, transporting or running the backup generation equipment, but the water agency bore other costs, such as diesel fuel and employees’ overtime labor costs.

“While we experienced some challenges in the beginning, once PG&E understood the critical nature of our backup water supply system, they had a very good emergency response for us,” he added. “Had PG&E not come through with the backup generators, we might have had widespread water outages.”

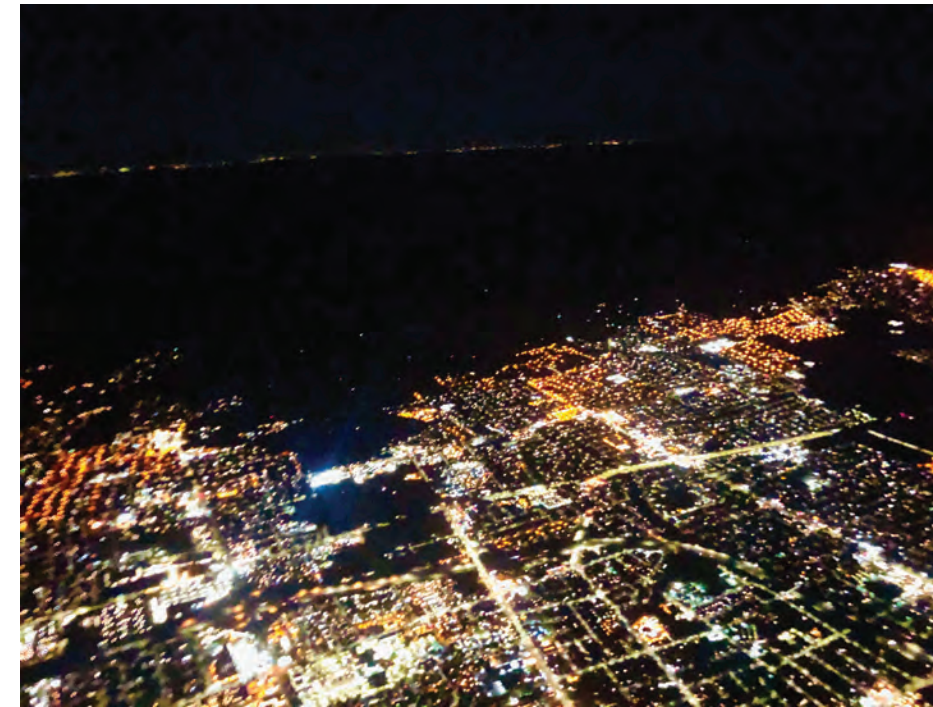


PG&E transported two 1.5-MW backup generators several hundred miles to Placer County, at no charge, enabling the water agency to continue pumping water during a PSPS in October. Photo courtesy of Placer County Water Agency

Howard recalled that people were trying to pack-up their homes and businesses. Power was needed to ensure that the evacuations could proceed safely. PG&E eventually did

agree to delay the PSPS transmission event to support the city’s evacuation efforts.

As well, he noted, PG&E’s transmission-level PSPS resulted in



This aerial image of San Jose was taken during the first PG&E PSPS event on October 10. It shows the patchwork of neighborhoods with power outages.

Photo courtesy of the San José Police Department

another public-power community, the city of Ukiah, being offline for four days. It had to rely on backup generation in the city to support essential services.

Steven Poncelet, assistant general manager for Truckee Donner PUD, said his utility suffered collateral damage from PG&E’s power shutoffs.

“We are not connected to California electrically, so we were not directly impacted by PG&E’s shutoffs,” he said. “But during the early October PSPS, when PG&E’s website was up, it showed they were going to shut off Truckee. This misinformation from PG&E was picked up by our local newspaper, Sierra Sun, creating a lot of local confusion and additional phone calls to us.”

While the City of Palo Alto Utilities did not institute a preemptive power outage, Catherine Elvert, communications manager for the utility, said a small number of residents in the foothills around Palo Alto, who were PG&E customers, lost power on a few occasions.

In far north California, about 500 customers lost power in early October when PG&E shut down four transmission lines that deliver power to Trinity PUD substations. The

majority of Trinity PUD’s customers are served by transmission lines owned and operated by the federal Western Area Power Administration (WAPA). These WAPA-served customers were unaffected by the outages because WAPA kept all its transmission lines energized.

“As a transmission customer of PG&E, we were told we would receive advance notice of any shutoffs,” Hauser said. “We were given about one hour of notice, and no clear idea of when power would be restored. Approximately 6% of our customers were out of power for as long as two days.”

What made matters more confusing to Trinity County residents is that PG&E and Trinity PUD provide electricity to different parts of the same county. That meant less clarity about which neighborhoods would lose power, and which would not.

Hauser said all employees were called in to answer calls from customers.

“No one got a busy signal,” he said. “Managers and meter readers were taking customer calls.”

If the call volume exceeded Trinity PUD’s capacity to answer, calls rolled over to a contracted call center.

COMMUNITY CHOICE AGGREGATORS

During the shutoffs, some community choice aggregators were caught in an uncomfortable position; stuck between their customers and the IOUs responsible for delivering electricity to those customers.

Several years ago, California established CCAs as not-for-profit vehicles to procure cleaner energy—whether renewable, carbon-free or less carbon-intensive—on behalf of the residents and businesses in a specific community that was being served by an IOU. The energy procured by CCAs is delivered via power lines owned and maintained by IOUs.

During four October PSPS events, more than 200,000 MCE customer accounts were affected—some multiple times—according to MCE Director of Public Affairs Heather Shepard. MCE serves 470,000 customer accounts across 34 communities in Marin, Napa, Contra Costa and Solano counties.

“To increase overall community resiliency, MCE has been developing several customer-sited resiliency initiatives, including the creation of a \$3 million resiliency fund,” Shepard said. “In November 2019, we also released an RFP for energy storage providers to help support the adoption of storage for solar customers and especially low-income solar customers.”

San Jose Clean Energy procures renewable and carbon-free energy on behalf of about 328,000 customers in the city of San Jose. PG&E’s October 9 power shutoff affected about 20,000 SJCE customers. The October 26 PSPS affected about 7,500 SJCE customers, according to Kate Ziemba, the CCA’s senior public information representative.

The City of San Jose spent about \$760,000 setting up and staffing an emergency operations center during last fall’s power shutoffs. Roughly two-thirds of those outlays should be reimbursed by the state.

“You can see on social media postings that people are angry at PG&E,” Ziemba said. “People don’t want this to become the ‘new normal.’ But they also seem to understand it was PG&E, not us, that shut off the power.”

WILL THE LIGHTS GO OUT ... FOR PG&E?

As the state's largest utility, it should not be surprising that PG&E was responsible for most of the power shutoffs last October and November. Those outages—particularly the way they were communicated—have stoked long-standing resentment against PG&E.

Resentment became outrage when PG&E CEO Bill Johnson said the shutoffs might have to continue for as long as 10 years to enable the utility to update its equipment and catch up on years of underfunded vegetation management.

PG&E was driven into Chapter 11 bankruptcy in early 2019 and hopes to exit bankruptcy reorganization by mid-2020. But the already complicated bankruptcy proceeding grew even more complex and contentious after multiple competing proposals were advanced during the fall to turn all or part of PG&E into nonprofit, publicly owned entities.

Proponents say public ownership of some or all of PG&E could lower prices and improve service. Prices could be lowered because a publicly owned entity would not be obligated to pay dividends to stockholders and could borrow at lower rates than similarly situated investor-owned utilities. Because cooperatives and public power utilities pay no federal income taxes, they could increase investment in service improvements such as more aggressive vegetation management.

The quality of service would improve because leaders and employees would be focused exclusively on serving customers, without the need to generate dividends that can be paid to investors.

San Jose Mayor Sam Liccardo first proposed turning PG&E into a publicly owned cooperative in late October 2019. Two weeks later, his proposal gained the support of two dozen mayors and leaders across the state in a letter to the California Public



MCE provided free electric vehicle charging to the public at the MCE Solar Charge EV charging stations at its San Rafael office. Device charging was also publicly available inside MCE's office building.

Photo courtesy of Marin Clean Energy

Utilities Commission.

"We need to align the financial interest with the public interest," Liccardo said of the proposal.

Criticizing PG&E's first PSPS, initiated in early October, he told *The Wall Street Journal*, "I've seen better organized riots."

Liccardo said a customer-owned utility structure would "allow PG&E to begin the process of restoring public confidence, in part by allowing the public to have a greater role in determining decisions that increasingly have come to define matters of life and death."

A separate idea, floated in September by the San Francisco Public Utilities Commission, called for paying PG&E about \$2.5 billion for its assets within the city.

PG&E has said it is uninterested in either idea.

In late October, Gov. Newsom suggested the state could take over PG&E.

"The entire system needs to be reimaged," he said. "PG&E may or may not be able to figure this one out. If they cannot, we are not going to sit around and be passive. We are gaming out a backup plan. If PG&E is unable to secure its own future ... then the state will prepare itself as backup for a scenario where we do that job for them."

Following Newsom's late-October announcement for a reimaged

PG&E, Jeff Shields, former general manager of the South San Joaquin Irrigation District in California, sent a letter to the governor advocating turning PG&E into a public power utility.

"Today, when making any decision, PG&E executives ask themselves 'How will this benefit our shareholders?'" he wrote. "Public power utilities ask a different question: 'How will this benefit our customers?'"

Other attempts to municipalize are afoot. Valley Clean Energy, a CCA serving Yolo County, floated a plan to buy PG&E's lines, poles and other assets for \$300 million. Sonoma Clean Power, a CCA for Sonoma and Mendocino counties, has investigated taking over some or all of PG&E's electric assets in those two counties, which were hit hard by the Kincadee Fire in October 2019.

While the federal bankruptcy court in San Francisco is responsible for approving one among several competing reorganization plans, any reorganization that involves increasing PG&E's retail electric prices must be approved by the California Public Utilities Commission. The CPUC can veto a plan it believes is not in the public's best interest. The CPUC commissioners are appointed by Gov. Newsom. **CWP**