DOING BUSINESS IN THE DARK

Texas and the Growth of the Rolling Blackout Debacle

By Alan Lammey

It goes without saying that most businesses cannot operate without electricity, but businesses in the Lone Star State may simply have to grow accustomed to doing business in the literal dark: rolling power blackouts may be more frequent and commonplace for years to come.

Assuming that the population of Texas will continue to expand at the exceedingly rapid pace seen over the last decade, new sources of electricity generation must be developed, and constant, proactive updates to the power grid must occur; otherwise, Texas businesses will more than likely endure rolling blackouts in both summer and winter. This is a big problem, since manufacturers, technology-services providers, restaurants, salons, retailers, office buildings, schools, and countless other businesses lose substantial income when they are without power. For now, no easy solutions exist for this growing problem.

As many Texas business owners and residents witnessed during the arrival of the "arctic vortex" in January 2014, rolling blackouts are not just a summertime headache anymore; they're a very real wintertime possibility as well. Rolling blackouts can shut down businesses without warning, and they're growing in frequency.

JANUARY 2014 POWER EMERGENCY AVERTED

The operators of Texas's main power grid just barely avoided a major, unexpected rolling blackout on the morning of January 6, 2014, when two power plants in the central part of the state went offline. As a result, in some areas of Texas, numerous business establishments and residential areas went without power for hours.

The problem would have been far worse had the Electric Reliability Council of Texas (ERCOT) not sprung into action. Its demand-response resources may have helped prevent a domino-effect power outage from sweeping across Texas during a nearly nationwide period of intense cold. Part of ERCOT's demand response involved calling a "power conservation alert," which is one level below an "emergency alert" on ERCOT's scale.

The very next day, demand for electricity on the morning of January 7

peaked at 55,486 megawatts (MW), according to ERCOT. This triggered another energy emergency alert, during which the operator enacted demand-response programs through entities that contract with ERCOT to reduce electricity use.

Most people associate the potential for rolling power blackouts with summer, but peak cold weather in Texas usually occurs in January and February and can create similar power-outage potentials. Normal peak electricity demand around that time is about 50,000 MW. The all-time highest energy-demand peak for the Texas wintertime was 57,265 MW. That surge occurred in February 2011, coinciding with a winter storm that took more than 150 power plants offline in Texas and triggered outages across the state.

During the January 6 event, temperatures across Texas dropped to near-record lows and power demand spiked as customers woke up, leading ERCOT to issue a level 1 conservation alert. Just minutes later, ERCOT issued a level 2 alert. In the event of a level 3 alert, ERCOT would have ordered its member utilities to rotate scheduled outages across their service territories, sparing only critical facilities such as law enforcement centers, hospitals, and nursing homes.

In 2013, ERCOT recorded three monthly power-demand records. Electric power reserves were also quite tight for ERCOT throughout the summer of 2013, a scenario that ERCOT had predicted in its May summer resource assessment (the assessment predicted that peak demands would reach 68,383 MW, slightly higher than the all-time record set on August 3, 2011).

TEXAS POWER DEMAND RAPIDLY OUTPACING SUPPLY

ERCOT contends that electricity use in Texas is climbing faster than new power plants can be built and brought online to meet the demand. (ERCOT's grid covers about 85 percent of the state's population.)

Texas consumes more electricity than any other state in the United States—and the demand for electricity is slated to continue to rise, straining the Texas power grid. Electricity demand in the state was up 1.7 percent in 2012 and grew approximately another 2.5 percent in 2013. Not enough new power plants are coming on line to keep up. That's why the North American Electric Reliability Corporation (NERC), which monitors the nation's power grids, says that Texas, out of all the states, faces the biggest threat of rolling blackouts during the peak summer air-conditioning season. In light of the January snafu, the state is clearly subject to periods of outages during the winter too.

ERCOT forecasts that its summer reserve margin will be just over 8 percent, while NERC considers a 15 percent cushion to be the bare minimum. The regulators who run ERCOT and the state leaders who ultimately structured the power system know there's a problem—and with demand expected to grow to

76,000 MW by 2023, the problem is only going to worsen. The solution is simple: build more power plants while incentivizing lower consumption.

But how? ERCOT can't simply mandate power companies to build more plants. The restructuring (deregulation) of the Texas power market in 1999 dismantled the oligopoly of big electric utilities and introduced real competition into the power grid. ERCOT is an "energy only" wholesale power market, which means that the only part of the market its regulators really regulate is the "maximum wholesale price" that generators can charge for their kilowatts during peaks.

Any decisions on whether to invest in new power plants are left up to power-generation companies and investors. This limitation is good in that it maximizes free market forces, but it's also bad: if power generators (or their investors) don't see the economic sense in investing hundreds of millions of dollars (billions, in some cases) to build new generation plants, Texas may simply have to adjust to power-grid disruptions for the foreseeable future.

SOLUTIONS ON THE TABLE

To incentivize new power generation in the Lone Star State, ERCOT has raised the cap on wholesale electricity prices; when the sun blazes, power plants will have every incentive to fire up. From $4,500 per MWh last year, the price cap is ratcheting up to $9,000 per MWh in 2015. This rise will, in theory, keep power generation operators interested in building new generation facilities.

But the development of new power generation can't come fast enough. On average, it takes at least four or five years to develop and build a new power plant. If the state waits to put incentives in place until the power is needed, power shortages won't be the only issue; state residents will have to deal with a multi-year power shortage.

Meanwhile, ERCOT is using other tactics to reduce load on peak days. It already offers a program that pays large commercial and industrial electricity users to reduce their usage on a half hour's notice, and last year it launched a pilot project expanding that deal to residential users. Communities can get in on the project if they can round up enough homeowners to reduce power use by 100 kW within 30 minutes. With some 6 million smart meters installed at Texas homes already, the potential for conservation could be huge.

MITIGATING BLACKOUT REVENUE LOSSES

Until new power generation capacity is constructed, businesses across the Lone Star State will be subject to power outages during extreme weather events. About the only way for businesses to mitigate their losses during these times is to consider purchasing business-interruption insurance.

Areas in Texas that are subject to floods, storm damage, or potential severe-weather-related power outages might contemplate purchasing business-interruption insurance in addition to other coverage. Property-loss insurance will not cover loss of income if a business cannot operate normally. However, some business-insurance policies will cover loss of income resulting from a business interruption due to loss of electricity. Not all policies contain the same language, and policies differ when it comes to economic-damage specifics resulting from a loss of service—so it's important that business owners look closely at the fine print of their policies and have this sort of rider put in place if it's not already included.

While the population growth in Texas is great for nearly all niches of business, it does not come without some growing pains. For now, business owners will simply have to cope with and plan for power outages in the months and years ahead, particularly during times of the year when extreme weather events can (and will) occur in the Lone Star State. **N**

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