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How to know the difference between a local power outage and rolling blackouts

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Last week, Texans were asked twice to voluntarily conserve energy at home as record demand put stress on the power grid.

These conservation requests don't mean that power outages are imminent — instead, it's one of the many tools that Texas' Electricity Reliability Council uses to prevent mass power outages. At the same time, some residents across the state lost power in outages that ERCOT says weren't related to the power grid. It's easy for Texans, [still wary after February's 2021 winter outage](#) that caused many Texans to [lose power for days](#), to confuse local outages with statewide issues with the grid.

So how do you know the difference?

When ERCOT calls for a rotating outage, the information will be available through several sources, a spokesperson said. This can include reports in local media, on ERCOT's [Facebook](#) and [Twitter](#), through the [ERCOT app](#) and through emergency email alerts that residents can [sign up for here](#).

Rotating outages also affect [the entire ERCOT region](#), which covers most of Texas. When individual towns are experiencing an outage, the problem is much more likely to be local, according to an ERCOT spokesperson.

The Texas Department of Public Safety also works with ERCOT and other grid operators in Texas to put out power outage alerts when one of the grid operators believes it doesn't have enough power supply to meet demand for the state or a particular region.

The power outage alert program supplies Texas broadcasters with information and updates about outages to distribute to the public.

Texans who are experiencing an outage but don't see any announcements from ERCOT should check with their local utility company instead. Many local utilities offer updates on their website and text alerts for outages, including:

- [CenterPoint Energy](#), which services the greater Houston area
- [Austin Energy](#)
- [Oncor](#), which services North Texas
- [AEP Texas](#), which services dozens of counties including large swaths of south, central and west Texas
- [Texas-New Mexico Power](#), which operates in portions of west, east and north Texas

Outages are also tracked nationwide at [poweroutage.us](#), which offers information on where outages are happening and how many customers are affected.

Local outages are outages that aren't called for by ERCOT. There are a number of things that can cause a local outage — an extreme weather event knocking out power, lightning striking or even a car accidentally driving into an electric pole.

In winter 2022, Texas' power grid [avoided widespread blackouts due to cold weather](#). However, some Texans were still impacted by local outages that were unrelated to ERCOT's direction and the statewide grid system. Texans experiencing local outages should check with their local utility company for an estimate for when power might be restored.

Stress on the grid can be caused by a variety of expected and unexpected factors. ERCOT monitors forecasts for weather and energy demand ahead of time to try to predict when grid stress might call for energy conservation, a spokesperson for the operator said.

Some of the factors that can cause grid stress include higher-than-expected outages at natural gas- and coal-fired power plants, low winds that reduce wind turbine output, increased cloud coverage that hinders solar power generation and extremely high temperatures that increase demand.

Texas' power grid relies on several different forms of electricity

generation: natural gas, coal, nuclear power, wind power and solar energy. In February 2021, [the grid failed](#) when all sources of electricity struggled in the extreme winter weather.

An energy conservation request is one of ERCOT's early tools to reduce stress on the grid long before it results in power outages.

During an energy conservation request, ERCOT asks residents to voluntarily reduce their energy consumption as part of the grid operator's efforts to lower stress on the grid. This can include turning off unnecessary lights, unplugging big appliances and turning up your thermostat. Energy conservation requests apply only to those who can do so safely, so Texans who rely on energy for medical devices should not attempt to conserve energy in a way that endangers their health.

Energy conservation is one of the factors that can help prevent the need for ERCOT to declare an energy emergency. ERCOT has called for voluntary energy conservation over 50 times since 2008, according to the grid operator.

An [energy emergency](#) occurs when the amount of stress on the grid means that ERCOT can't balance electricity supply and demand using normal procedures. Declaring an energy emergency means the grid operator will start using special resources to prevent outages.

There are three levels of energy emergencies, which the grid operator calls EEA1, EEA2 and EEA3.

During EEA1, ERCOT may call on all available power supplies, such as tapping into power from other neighboring grids. Under EEA2, the grid operator can reduce power to large industrial customers, such as manufacturing facilities, refineries and cryptocurrency miners, among others. EEA3, the most critical form of energy emergency, is the only time when residential customers may begin to experience outages.

Energy conservation requests are separate from energy emergencies. If ERCOT has put out an energy conservation alert, it means the operator hasn't yet moved into EEA1 conditions, but may do so in the future. If an energy emergency is called, consumers are asked to continue conserving as much energy as possible if they're able to safely.

The three levels of energy emergencies are meant to help ERCOT prevent an uncontrolled systemwide outage before it occurs, [which](#)

[almost happened in February 2021](#) when extremely cold weather shut down power plants across the state and drove up energy demand as residents turned up the heat.

Rotating outages, also known as rolling blackouts, occur only in ERCOT's most severe level of emergency conditions, what it calls EEA3. The power grid operator considers service interruptions to customers a last-resort option.

During a rotating outage, ERCOT contacts local power utility companies and asks them to reduce their demand on the power grid. Local utility companies decide how to decrease demand and typically implement rotating outages in which different areas experience temporary interruptions. In extreme circumstances, the outages may become longer.

ERCOT has resorted to asking for controlled outages only five times: once in 1989, once in 2006, once in 2011, once in 2014 ([only in the Rio Grande Valley](#)), and once during [the winter storm in February 2021](#). However in February 2021, [ERCOT lost control of the grid](#) as large amounts of power generation went offline even after ERCOT had requested outages. As a result, the rotating outages ERCOT had asked for could not be rotated, and instead many Texans lost power for days.

In May 2022, Brad Jones, ERCOT's interim CEO, said he was [cautious but not concerned](#) about the grid's reliability this summer. Of the five past times that ERCOT has ordered controlled outages, none have occurred during the summer.

If outages do occur, they would likely be much shorter than they were during the winter storm of 2021, an ERCOT spokesperson said.

An outage would likely last only during the afternoon, when energy demand reaches its peak, though the exact duration of any outage depends on what the conditions are at the time.

However, [Jones also told the Houston Chronicle](#) that ERCOT did not forecast this summer being this hot. Since May, 30 peak energy demand records have been broken, including monthly records, weekend records and all-time records, a spokesperson for the grid operator told the Tribune. The record-setting heat has led to high demand for energy, which — combined with other factors — has led ERCOT to request voluntary energy conservation several times this summer. A spokesperson for the grid operator said ERCOT would

continue to call for conservation in the future when it determines the measure is necessary to maintain grid reliability.

Since the 2021 winter storm, [ERCOT has been making changes to prioritize grid reliability](#), Public Utility Commission chair Peter Lake told the Tribune. For example, the grid operator asks power plants to be online and available all the time in case they're needed, instead of going online or offline based on market demand.

The changes, along with other factors, have led to [skyrocketing energy bills for Texans](#). Brad Jones also [told the Houston Chronicle](#) that some machines are older and may suffer reliability issues, though outage rates have been low so far.

[Energy experts told the Tribune](#) that the most glaring issue is weatherizing natural gas production facilities, which fuel [the largest percentage of Texas' power generation](#). During the winter storm, [natural gas production plummeted](#) due to the freezing conditions and power outages.

The Public Utility Commission, which regulates ERCOT, and the Texas Railroad Commission, which regulates the natural gas industry, [have both made efforts](#) to make sure power generators can withstand winter weather though experts said holes in [both agencies' policies leave wiggle room to avoid weatherization](#).

In January 2022, the Railroad Commission said that [98% of the natural gas facilities the commission's inspectors had visited were winterized](#), though the inspectors hadn't visited every facility in the state. The Railroad Commission has still not implemented weatherization standards for natural gas companies.

A spokesperson for ERCOT said the grid operator is working with the Public Utility Commission on expanding the amount of energy available in batteries that ERCOT could call upon when demand requires it.

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