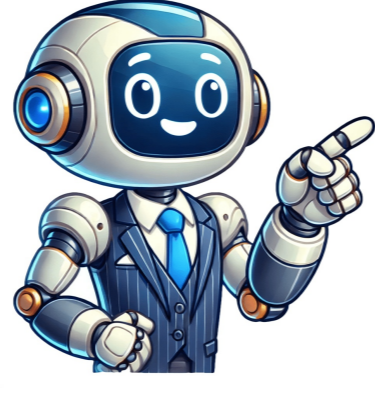


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Crypto miners texas need approval energize

Amid a surge in the price of Bitcoin and associated electricity demand, the Public Utility Commission of Texas on Thursday voted to require cryptocurrency miners to register with regulators. The rules require mining facilities located within the Electric Reliability Council of Texas footprint that consume more than 75 MW to register with the commission and to provide information annually about the facility's location, ownership and electricity demand. Registration is necessary to ensure the electric grid remains reliable, commission Chairman Thomas Gleeson said in a statement. "This is another example of the PUCT and ERCOT adapting to support a rapidly changing industrial landscape," he said. ERCOT anticipates about 152 GW of new load by 2030, driven by data centers and electrification. While crypto is only part of that, observers say miners can help drive increases in reliability risks and electricity prices. Electricity demand from crypto mining in Texas has "grown rapidly over the last several years," the PUCT said. "The rule approved today will give the PUCT and ERCOT better awareness of virtual currency mining operations around the state, which have unique power consumption characteristics," the commission said. "The information provided in the registration will help ERCOT manage the grid reliably as more virtual currency mining facilities connect to the grid." Failure to register can mean penalties of up to \$25,000 penalty per violation, per day, the commission said. Miners had expressed concerns that registration data will include proprietary and commercially sensitive information, and asked the rule to be amended to explicitly identify the information provided as confidential. The commission declined to make the change, noting the information will be collected via an internal-facing online tool that will not be public. "Furthermore, the majority of information being collected is already publicly available in various locations. However, neither the commission nor ERCOT will disclose competitively sensitive or proprietary information unless legally required to do so," the commission said in its order. The Texas Blockchain Council said it is "appreciative of the thoughtful approach" the commission took, and is "encouraged" by the order's statement on proprietary information. "The information that the PUC is requesting is appropriate and far less invasive than what the Federal Government attempted under the Biden Administration earlier this year," TBC President Lee Bratcher said in an email. The U.S. Energy Information Administration had planned to begin collecting data from miners in February under an emergency authorization but was sued by TBC, which alleged the expedited survey approval violated the Paperwork Reduction Act and some of the data requested was proprietary. EIA ultimately withdrew its survey and in July said it would take comments on how to move forward with the data collection. Cryptocurrency mining represents between 0.6% and 2.3% of total U.S. electricity consumption, according to EIA preliminary estimates released in February. In ERCOT, crypto miners are included in a category called "large flexible loads" and EIA in October said their demand in Texas could total 54 billion kWh in 2025, up almost 60% from expected demand this year. "This expected demand from [large flexible load] customers would represent about 10% of total forecast electricity consumption on the ERCOT grid next year," EIA said. Bitcoin prices have surged to an all-time high of almost \$100,000 since the U.S. presidential election. President-elect Donald Trump has floated the idea of a strategic reserve of bitcoin and for more crypto-friendly policies. Sen. Ted Cruz, R-Texas, said he wants his state "to be an oasis for Bitcoin." "We are seeing many companies come to Texas to create new jobs in the cryptocurrency industry," Cruz said in a Saturday post on X, sharing an interview clip with Larry Kudlow on FOX Business. "The single biggest threat to Bitcoin, and cryptocurrency generally, is the federal government." The recent price increases are people "responding to what is going to be a favorable regulatory environment," Cruz said. Texas' utility regulator on Thursday adopted a rule requiring cryptocurrency mining facilities connected to the state's main electric grid to register with the state's grid operator. The rule, which was mandated by lawmakers in a 2023 bill, requires crypto mining facilities that consume more than 75 megawatts of power to tell the Public Utility Commission and the Electric Reliability Council of Texas, which oversees the state's power grid, the facility's location, ownership and electricity demand.Crypto mining, which consumes vast amounts of power to run and cool its computers, has been growing in Texas, contributing to a surge in electricity demand across the state. The rule was designed to help the state see how much electricity crypto facilities will consume and protect the grid's reliability."This is another example of the PUCT and ERCOT adapting to support a rapidly changing industrial landscape," PUC Chairman Thomas Gleeson said in a statement. "Most importantly, we will always take the steps necessary to ensure reliable, affordable power for all Texans."Existing facilities must register by Feb. 1 and renew their registration annually. Companies must also provide each facility's anticipated peak load for the next five years, in addition to the actual power the facility consumed in the prior year.Failure to register could result in up to a \$25,000 penalty per violation per day.Crypto facilities are considered "large flexible loads" by state regulators, meaning they can adjust their power consumption quickly — such as powering off their computers when the grid is strained.As of July, ERCOT estimated that crypto facilities on the main grid could use up to 2,600 megawatts of power — about the same amount of power used by the city of Austin. The state recently approved crypto mining facilities that are expected to use another 2,600 MW of electricity, and more are expected to locate in Texas soon.That growth, in addition to increasing interest in Texas from data centers, hydrogen production facilities and oil and gas companies that are electrifying their drilling operations largely concentrated in the Permian Basin, has driven ERCOT's prediction that electricity demand in Texas could nearly double within six years.Demand on the power grid hit a record of 85 gigawatts last year, which was the hottest ever recorded in the state. ERCOT experts now say demand could reach around 150 gigawatts by 2030.This article originally appeared in The Texas Tribune at Texas Tribune a is a member-supported, nonpartisan newsroom informing and engaging Texans on state politics and policy. Learn more at texastribune.org. In a significant move to regulate the growing cryptocurrency mining industry, the Public Utility Commission of Texas (PUCT) has adopted a new rule requiring large-scale crypto mining facilities to register with state authorities.The decision, adopted on Thursday, aims to ensure the reliability of Texas's power grid amid surging electricity demand driven by the rapid growth of energy-intensive crypto mining operations that include popular cryptocurrencies like Bitcoin, which has been soaring in value of late.This is another example of the PUCT and ERCOT (Electric Reliability Council of Texas) adapting to support a rapidly changing industrial landscape," PUCT chairman Thomas Gleeson said in a statement. "Most importantly, we will always take the steps necessary to ensure reliable, affordable power for all Texans."Effective immediately, cryptocurrency mining facilities connected to the ERCOT grid that consume more than 75 megawatts (MW) of power are required to register with the PUCT and ERCOT.These facilities must disclose critical information, including their location, ownership structure, anticipated peak electricity demand for the next five years, and actual power consumption from the previous year. Existing facilities have until February 1 to comply and must renew their registration annually. Failure to register could result in penalties of up to \$25,000 per violation per day. The rule was mandated by a 2023 bill, Senate Bill 1929, which was passed to address the challenges posed by the crypto mining industry's substantial energy consumption. According to the bill, the registration aims to help ERCOT manage the grid reliably as more virtual currency mining facilities connect to it.Crypto mining operations are classified as "large flexible loads" by state regulators due to their ability to adjust power consumption rapidly. This flexibility allows them to reduce their energy use during peak demand periods, potentially aiding grid stability.However, their overall energy consumption is significant. As of July, ERCOT estimated that crypto mining facilities could use up to 2,600 MW of power—the equivalent of the electricity consumption of the entire city of Austin. Additionally, new facilities expected to consume another 2,600 MW have been approved, with more likely to come.The influx of crypto miners, along with increasing demand from data centers, hydrogen production facilities, and the electrification of oil and gas operations, has led ERCOT to predict that electricity demand in Texas could nearly double within six years. Bitcoin mining machines in a warehouse at the Whinstone US Bitcoin mining facility in Rockdale, Texas, on October 10, 2021. New Texas legislation requires cryptocurrency miners to register with the state. Bitcoin mining machines in a warehouse at the Whinstone US Bitcoin mining facility in Rockdale, Texas, on October 10, 2021. New Texas legislation requires cryptocurrency miners to register with the state. Mark Felix/AFP via Getty ImagesThe grid operator anticipates demand could reach around 150 gigawatts (GW) by 2030, up from a record peak of 85 GW last year during the state's hottest summer on record."To ensure the ERCOT grid is reliable and meets the electricity needs of all Texans, the PUCT and ERCOT need to know the location and power needs of virtual currency miners," Gleeson said.While the new regulations aim to bolster grid reliability, they have raised concerns within the crypto mining community about the confidentiality of proprietary and commercially sensitive information.Miners have requested that the registration data be explicitly identified as confidential to protect their competitive advantage. However, the commission declined to make this change, noting that the information will be collected via an internal-facing online tool that will not be publicly accessible."Furthermore, the majority of information being collected is already publicly available in various locations," the commission stated in its order. "Neither the commission nor ERCOT will disclose competitively sensitive or proprietary information unless legally required to do so."The Texas Blockchain Council expressed appreciation for the commission's approach. "The information that the PUC is requesting is appropriate and far less invasive than what the Federal Government attempted earlier this year," Lee Bratcher, president of the Texas Blockchain Council, said in an email to Utility Dive.Texas's new rule comes amid a broader national conversation about the regulation of cryptocurrency mining.Several states, including Montana, Mississippi, Oklahoma, and Arkansas, have passed "Right-to-Mine" laws aimed at protecting the rights of crypto miners, prohibiting discriminatory regulations and predatory practices like overcharging for electricity. Sign up for The Brief, The Texas Tribune's daily newsletter that keeps readers up to speed on the most essential Texas news. Texas' utility regulator on Thursday adopted a rule requiring cryptocurrency mining facilities connected to the state's main electric grid to register with the state's grid operator. The rule, which was mandated by lawmakers in a 2023 bill, requires crypto mining facilities that consume more than 75 megawatts of power to tell the Public Utility Commission and the Electric Reliability Council of Texas, which oversees the state's power grid, the facility's location, ownership and electricity demand. Crypto mining, which consumes vast amounts of power to run and cool its computers, has been growing in Texas, contributing to a surge in electricity demand across the state. The rule was designed to help the state see how much electricity crypto facilities will consume and protect the grid's reliability. "This is another example of the PUCT and ERCOT adapting to support a rapidly changing industrial landscape," PUC Chairman Thomas Gleeson said in a statement. "Most importantly, we will always take the steps necessary to ensure reliable, affordable power for all Texans."Existing facilities must register by Feb. 1 and renew their registration annually. Companies must also provide each facility's anticipated peak load for the next five years, in addition to the actual power the facility consumed in the prior year. Failure to register could result in up to a \$25,000 penalty per violation per day. Crypto facilities are considered "large flexible loads" by state regulators, meaning they can adjust their power consumption quickly — such as powering off their computers when the grid is strained. As of July, ERCOT estimated that crypto facilities on the main grid could use up to 2,600 megawatts of power — about the same amount of power used by the city of Austin. The state recently approved crypto mining facilities that are expected to use another 2,600 MW of electricity, and more are expected to locate in Texas soon. That growth, in addition to increasing interest in Texas from data centers, hydrogen production facilities and oil and gas companies that are electrifying their drilling operations largely concentrated in the Permian Basin, has driven ERCOT's prediction that electricity demand in Texas could nearly double within six years. Demand on the power grid hit a record of 85 gigawatts last year, which was the hottest ever recorded in the state. ERCOT experts now say demand could reach around 150 gigawatts by 2030. Texas has started requiring new large-scale cryptocurrency miners to seek permission to connect to the state's power grid in anticipation of a flood of requests that are expected to drive up electricity demand.The Electric Reliability Council of Texas is requiring utilities to submit studies on the impact of miners and other large users tapping the grid before they can get "approval to energize," according to a March 25 notice from the state's main grid operator.ERCOT members will vote Wednesday to form a task force that ultimately is meant to protect the grid from being overwhelmed.The move is a reaction to a surge in electricity demand expected from crypto miners this year and next. Texas regulators are grappling to understand how miners will tax a grid that had its vulnerabilities exposed during a deadly winter storm last year.Become a business insider with the latest news.The latest measures are a turnaround from the previous practice, which had utilities perform their own studies to determine whether their transmission and distribution systems need to be upgraded and then inform ERCOT of the changes coming.Crypto miners seek to add several gigawatts of demand this year and next, which poses a challenge for a grid operator that typically gets a heads-up several years in advance from traditional industries that help it to better plan for the added consumption.Related:Texas crypto miners voluntarily shut down to keep electricity flowing to homes during freeze"We are entering into a dialogue with ERCOT now to ensure that this does not cause any delays for the Bitcoin miners," Lee Bratcher, president of the Texas Blockchain Council, said Wednesday in an emailed statement.ERCOT's new requirement will affect every big consumer, from factories to liquefied natural gas export terminals, but it's poised to slam the brakes on the lightning-fast needs of the crypto industry. A miner with servers on hand and an ideal location could be up and running within a couple of months, unlike the years it takes for a company to build a factory or terminal.Any project that will add 20 megawatts of demand on the site of a generator within the next two years will have to undergo this review process. For those that don't have their own power generation on site, the minimum threshold for review is 15 megawatts. The rule applies to both new projects and expansions.The task force being established to hammer out details of this plan is expected to consider almost three dozen priorities, including tracking new large consumers and whether these users should be required to participate in ERCOT-controlled services to help stabilize the grid. The Large Load Task Force, as it's called, will comprise ERCOT members, the independent market monitor and other interested parties.Naureen S. 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Mar 6, 2024 8:44 AMThe energy demands of bitcoin mining have sparked controversy in a state that once welcomed those companies with open arms.A worker installs a new row of bitcoin mining machines at the Whinstone US bitcoin mining facility in Rockdale, Texas, on October 9, 2021.Photo-illustration: WIRED Staff; MARK FELIX/Getty ImagesThree years ago, bitcoin miners flocked to the state of Texas. The Lone Star State offered cheap power, plentiful supplies of renewable energy, and an accommodating regulatory climate. Some mining companies already operated there, but when China banned crypto mining in May 2021, a mass migration began. Texas was fast becoming "a Mecca for bitcoin miners," said Greg Abbott, the state governor. But lately, the mood has shifted.Texas residents have complained that industrial-scale bitcoin mines are driving up energy prices and destroying the quality of life of those living nearby. Meanwhile, politicians are demanding clarity over crypto mining's impact on both the environment and the stability of the ailing Texas energy grid. The industry has been forced onto the defensive.On February 22, the Texas Blockchain Council (TBC), a pro-mining lobbying group, filed a lawsuit against three parts of the federal government: the US Department of Energy, US Energy Information Administration (EIA), and the White House Office of Management and Budget. It objects to an "emergency" data request initiated in January that required mining firms in Texas to disclose details about their energy usage. Riot Platforms, which operates North America's largest bitcoin mining facility in Rockdale, Texas, is a complainant.The complaint alleges that the federal government concocted illegitimate reasons for expediting the survey, forgoing a process that would have allowed mining companies to object. The disclosure of "highly proprietary" information, the suit claims, would "immediately and irreparably harm" the affected businesses. The survey, says TBC president Lee Bratcher, unfairly singled out an "out of favor" industry.On February 23, the judge in the case issued an order preventing the government from collecting further data. Less than a week later, the case was stayed indefinitely. The government had withdrawn its survey and agreed to destroy all data it had gathered. The lawsuit is just the latest flareup of a broader fight over bitcoin mining in Texas. Detractors and government agencies trying to understand the industry's full impact have so far been forced to scrape together only "piecemeal information," says Adrian Shelley, an energy policy expert and branch director of consumer advocacy group Public Citizen.Riot Platforms did not respond to requests for comment.In February 2021, Governor Abbott found himself in a political bind. A powerful winter storm had knocked out some of the state's aging fossil fuel power plants, triggering a blackout that pitched 4.5 million homes into darkness. By the time the storm had abated and power was restored, 246 people had died. Abbott needed a way to shore up the grid. He saw an opportunity in the crypto mining industry.Cryptocurrency mining is a process whereby computers race to solve a mathematical puzzle and the victor is rewarded with a batch of freshly minted crypto tokens. Today, the competition among miners is such that large fleets of specialized, energy-guzzling hardware are necessary to stand a chance of winning.It may seem harbrained to invite industrial-scale consumers of power onto an already-creaking grid, but bitcoin miners, Abbott hoped, could act as a failsafe of sorts. When demand was low they would pull from renewable energy sources—thus improving the profitability of wind and solar plants and incentivizing new development—and in periods of high demand they would switch off in exchange for a fee. This kind of arrangement is known as demand response. Separately, mining companies could further temper shortfalls in supply by selling back to the grid energy that they had pre-purchased in bulk.In June 2021, Abbott signed a new law that established a formal legal definition for virtual currency and set clear rules for businesses handling it, which he described as part of a "master plan" to attract crypto firms to the state. The following November, in an interview with the TBC, Abbott declared his intention to turn Texas into the "centerpiece" of the bitcoin industry.In the period since, some of the world's largest mining firms—among them Riot, Marathon Digital, Galaxy Digital, and Core Scientific—have either expanded existing facilities or opened new ones in Texas. The latest estimates from the Electric Reliability Council of Texas (ERCOT), the grid operator, from November 2022 suggest crypto miners are using around 2 gigawatts (GW) of energy in Texas, which equates to roughly 2.5 percent of the state's peak load. But a long queue of companies, representing around an additional 32 GW of consumption, are either awaiting approval for new mining installations or beginning construction. ERCOT declined to provide up-to-date figures.The prospect of more miners tapping the Texas grid has sparked concern among stakeholders who believe, variously, that the influx of mining activity will lead to blackouts, increase the price of energy for consumers, drive up carbon emissions, and damage Texans' quality of life.Recently, state residents that live near large-scale mining facilities have begun to complain about adverse second-order effects, particularly noise pollution generated by the elaborate cooling systems required to keep mining hardware from overheating. "There is a tremendous amount of vibration that goes through the air. It goes through the walls of people's homes," says Lyndon Laird, a candidate for state representative for Texas' 58th district, home to a mine operated by Marathon. "They can't sleep at night. Some are having adverse health effects."Laird claims the noise generated by the mining facility has "severely disrupted" livestock and other fauna, too. "Many chickens have stopped laying eggs," he claims. "Much of the natural wildlife that used to be in the area has vanished."On March 1, in a letter seen by WIRED, Laird put these complaints to the Texas Commission on Environmental Quality, the Public Utilities Commission of Texas, and other state regulators. An accompanying petition was signed by 88 local residents. Marathon declined a request for an interview, but in an open letter published in a local paper said it had "initiated an independent sound study" in response to complaints.Others argue the state's strategy of paying bitcoin miners not to mine when the grid is under heavy load is nonsensical. "The most important thing a regulator can do is match assets and liabilities—match supply and demand," says Ed Hirs, an energy fellow at the University of Houston. With the deterioration of the state's fleet of fossil fuel plants, he says, allowing large-scale mining facilities to increase demand on the grid can only "exacerbate the situation" and invite further instability.In Texas, claims Hirs, crypto mining is primarily an energy arbitrage business, the profitability of which is dependent on the ability to purchase energy cheaply in bulk and sell it back to the grid at a premium when demand is high. These operations are effectively double-subsidized by residents, says Hirs, whose taxes provide both the funds for buying energy from the miners in periods of peak demand and the fees paid to miners for participating in demand response. Hirs likens miners to parasites, calling them "the tapeworm on the ERCOT grid."Before the recent surge in the price of bitcoin, which has made mining more profitable, news reports noted that some firms made more money by switching off and collecting fees when the grid was under pressure than they were through mining bitcoin. In August 2023, when a Texas heatwave led to a surge in energy demand, Riot said it earned \$31.7 million through its participation in grid stabilization programs and only around \$10 million from mining.Opponents of inviting more mining facilities into Texas have been stymied by the absence of data showing the extent of the additional burden on the grid. Other than the miners themselves, nobody currently knows quite how much energy is devoted to mining in the state or the wider US. The EIA says it has "developed general estimates," but can't piece together an accurate picture due to the "difficulty of identifying cryptocurrency mining activity among millions of US end-use consumers."In March 2023, Texas state senators Lois Kohorst, Donna Campbell, and Robert Nichols, all Republicans, proposed bill SB 1751, which would have limited participation of crypto miners in demand response, withdrawn certain tax rebates, and imposed data reporting requirements. The bill passed the Senate unanimously, but died when the relevant congressional committee failed to hear it before the end of the session.The emergency survey filed by the EIA in January, prompted at least in part by the efforts of US senator Elizabeth Warren, was designed to fill in the gaps and "develop more rigorous estimates of electricity use by US cryptocurrency miners," the EIA said. But in the face of the lawsuit brought by the TBC and Riot, it proved to be short-lived.Critics of the mining industry have interpreted the move to squash the EIA survey as a cynical attempt to preserve a shroud of secrecy. "The last thing a parasite wants you to know is how bad it is going to become," says Hirs. But the mining industry says it had every reason to object, as evinced by the sympathy of the judge, who stated in a ruling that the government's justifications for expediting the survey—that a rise in crypto prices would incentivize more mining activity and, if the weather were to turn, destabilize power grids—"fall far short" of the necessary level of risk.In principle, mining companies are not opposed to providing the government with information about energy consumption, claims Bratcher. Their objection related to the scope of the survey—which included data on the precise location of facilities, types of hardware contained therein, and the firms supplying the energy—and to sensitive information being released publicly.The fear is that politicians with an anti-crypto stance might use that data to "bully commercial partners into not doing business with crypto miners," says Bratcher. "It's not hard to imagine a situation in which a larger energy company gets a threatening letter from Senator Warren."As for concerns about the destabilizing impact of crypto mining, Bratcher claims that "the grid is in a far better place now" than in 2021, when it was devastated by the winter storm. "The miners are filling in the troughs of demand and staving off the peaks," he says.Until the miners volunteer data on their present and projected energy consumption and terms of their power contracts, those who disagree with Bratcher's analysis must build their case on top of projections and anecdotal evidence.The TBC expects the federal government to put forward another survey at some point in the future. Bratcher says miners would not object to providing regionalized data on "aggregate energy usage." In response to a request for data from WIRED, ERCOT said it "does not comment on specific facilities' power usage." In a statement, the EIA said it hoped in the future to "provide the American public with a clear understanding of energy use from cryptocurrency mining."In a pro-business state like Texas, says Shelley, even full access to data is unlikely to help activists campaigning for a blanket ban on mining. "It's a high bar to convince Texas regulators to start restricting an industry," he says. However, it could help them to achieve more "modest" objectives, says Shelley, like limiting miners' participation in demand response.Shelley hopes the bill that promised to cap profits for miners taking part in grid stabilization programs and impose stricter reporting requirements will be revived next year in the state's next legislative session. "The public interest in understanding this industry is just too great," he says.

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