

Crypto miners' electricity use in Texas would equal another Houston

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Credit: Pixabay/CC0 Public Domain

The Texas grid operator expects crypto miners to increase electricity demand by up to 6 gigawatts by mid-2023, more than enough to power every home in Houston.

The [forecast](#) from the Electric Reliability Council of Texas is the first official estimate on how much stress miners are apt to put on the state's electrical system. Officials expect 5 to 6 gigawatts of new demand over the next 12 to 15 months, the equivalent of up to about 1.2 million homes.

It's just the tip of the iceberg. All told, about 17 gigawatts worth of crypto miners have inquired about plugging into Texas's grid, according to Brad Jones, Ercot's interim chief executive officer.

"That's about the equivalent of load of two-and-a-half New York Cities," Jones said in a telephone interview.

Texas has been aggressively courting crypto miners, who are drawn to the state's cheap power and laissez-faire regulation. Critics warn the increased demand could be too much for the grid, which collapsed during a 2021 winter storm, leading to blackouts that left 246 people dead. But miners, along with many Texas politicians, argue crypto will make the grid more resilient because operators can quickly scale back to give the system a break when demand spikes.

Ercot is working with miners to prepare the grid to handle about 25 gigawatts of crypto demand over the next decade, Jones said. When asked if Texas aims to be the world's largest mining center, he replied: "Yeah, that's what we are planning."

'Flexible load'

If all 17 gigawatts started up and operated at full throttle around the year, they would increase peak demand on the grid by more than 20% for next year. However, the new miners are willing to be "flexible load" in which Ercot could give orders to ramp up or down depending on grid conditions, just like [power plants](#), said Jones.

Ercot has a program in which large consumers can tell the grid operator how much they're willing to curtail electricity prices. If crypto miners participate, Ercot could dispatch orders to their facilities to ramp up or ramp down demand, just like how power plants are ordered to dispatch, Jones said. Miners have already started to enroll.

While making demand react to grid conditions can be useful, crypto mining is "adding demand to an already burdened grid and then needing to adjust it going forward," said Cisco DeVries, CEO of OhmConnect Inc., the largest residential energy use manager. "While that can be helpful, it also poses enormous challenges to the transmission and distribution system and to prices."

Ercot is putting a lot of effort into clearing the [grid](#) for the onslaught of new [crypto](#) mining coming online, said Galaxy Digital Holdings Ltd.'s Austin Storms, who attended a Tuesday public meeting held by an Ercot task force to discuss the expected surge.

"My biggest takeaway is that Ercot's really setting the stage for Bitcoin mining in Texas at this point," said Storms, the vice president of Bitcoin mining operations at Galaxy Digital. "The message that Ercot sending is that Texas is open for Bitcoin miners."

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