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Big projects, big energy demand: How Central Ohio is keeping up - Columbus Business First

By Zachary Jarrell – Data Reporter, Columbus Business FirstFeb 17, 2025

8-10 minutes

From Anduril Industries Inc.'s mega defense manufacturing complex to big-tech's <u>insatiable appetite for data centers</u>, Central Ohio continues to land huge projects.

In addition to jobs and investment, though, the developments also bring a great deal of energy demand.

Intel Corp.'s \$28 billion chip manufacturing complex, for example, will need as much as 500 megawatts of electricity to operate, according to a proposed agreement between the chipmaker and AEP Ohio, Central Ohio's main electric utility. (For comparison, 100 megawatts can power 6,000 to 8,000 homes.)

Keeping the steady flow of investment while maintaining a reliable grid has become a real question, one that leaders across the state – and country – are watching.

Power surge

AEP Ohio has signaled it cannot continue to supply power for data centers and other large economic development projects if no action is

taken.

With its current infrastructure, AEP Ohio already has committed to all the projects it can handle, it said last year. The power crunch is so severe that AEP Ohio placed a moratorium on new service agreements in 2023, leaving a growing waiting list.

AEP Ohio said in an email that it is "constantly working on maintaining and improving the grid." The company, for example, has installed "smart-grid technology," which it said reduces or eliminates outages.

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As things stand, AEP Ohio estimates its current peak load in Central Ohio reaches about 4,600 megawatts. The company also has signed agreements to provide about 5,000 additional megawatts to data centers by 2028, more than doubling the region's current figure if fully built out – demand AEP Ohio said it can meet.

Beyond that, "major investments would be required to meet the demand major data centers say they need," the company said.

"A 5,000-megawatt need may be able to be served relatively quickly," AEP Ohio's statement said. "But providing 15,000 megawatts, for example, would likely require multiyear planning and building, along with much more significant financial investments."

The company said data centers alone have tentatively requested more than 30,000 megawatts in Central Ohio.

Overall, experts agree that electricity demand will rise – but how much remains a question.

Plenty of power?

The state has the power it needs today and the ability to add more power

generation, said Matt Englehart, JobsOhio press secretary.

He credited the stability of the grid to "most of our power generation (coming) from natural gas, coal and nuclear energy – all of which are affordable and reliable."

"Renewables have an increasing role," he said in an email, "but they are intermittent."

Englehart also noted the economic development agency's strategic plan will include a focus on energy as it is "critical to continued job and business growth."

"Expanding power generation will continue to be a priority as demand grows," he said.

Meanwhile, according to a recent CBRE report on data center trends, data center developers are now looking south of Columbus and east of Cincinnati – an area that "offers an expedited timeline for more power availability."

Still, Greg Vernon – a senior vice president with CBRE Data Center Solutions – told *Columbus Business First* last year that the region is "clearly on the forefront" of data center interest and demand.

Last year, AEP Ohio went to the Public Utilities Commission of Ohio with a proposal to make large data center customers commit to paying for most of the energy they're requesting, even if they use less.

The company said this tariff is necessary so it doesn't make large infrastructure investments that go unused, a cost that would, in turn, be passed along to customers. For example, AEP Ohio plans to meet Intel's demand for 500 megawatts thanks to a \$95.1 million investment in its distribution system, according to a filing with the PUCO.

The promise-to-pay proposal – among the first of its kind nationwide –

has its critics.

In October, more than a dozen companies including Amazon, Microsoft, Google and Meta <u>filed a settlement agreement with the PUCO that</u> excluded AEP Ohio.

These companies said the proposal is more equitable and eliminates the terms "data center" and "mobile data center" and instead focuses on customers requesting more than 50 megawatts at a single site.

AEP Ohio, in turn, filed its own agreement that it said addresses "the extreme power needs of Ohio's growing data center industry while protecting AEP Ohio's other customers."

PUCO staff, the Ohio Consumers' Counsel, the Ohio Energy Group, Ohio Partners for Affordable Energy and Walmart joined the filing.

The company made tweaks to its original proposal, but still "simply asks data centers to commit to the load they are demanding," AEP Ohio's statement said.

"It is critical that data center owners have enough skin in the game to accurately estimate their energy needs so we right-size those infrastructure investments," the company said.

Opposite sides

Jereme Kent, CEO of One Energy Enterprises Inc. – <u>one of the parties to</u>
<u>the settlement competing with AEP Ohio's</u> – said his side "put a real good legal brief together and have faith and trust that the commission can see through the smoke."

"We have a real solution that works with good rate-making principles that protect the grid and still help AEP out of their dangerous financial condition," he said.

AEP Ohio, however, said its proposal "protects economic development."

"The unprecedented level of data center growth has been accommodated with our robust transmission system in Central Ohio, but has now nearly used up available transmission capacity," the company said.

"New transmission infrastructure to support data center growth is costly and can take a decade to build.

"We need to bring enough energy to our region to keep business running, and we need to do it in a way that is fair to all our customers."

Kent accused AEP Ohio of having "some very obvious holes" in its story.

For example, he said the utility "couldn't even define exactly when the moratorium (on new service agreements) started or who it applied to or exactly what it said."

"The idea that we have a moratorium that affects all potential big loads in the Columbus region – or more – and have nothing in writing is ludicrous in the space," he said.

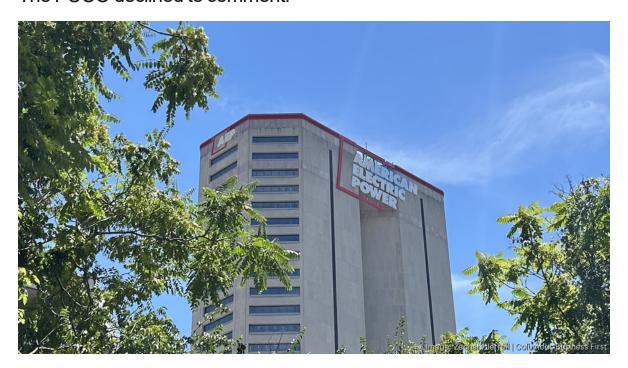
AEP Ohio said the moratorium started in March 2023 and applies to new data center and cryptocurrency mining customers.

"AEP Ohio met with those customers at that time, including any who had already submitted requests for service, and communicated the need for the moratorium," the company said. The PUCO also was made aware of the pause.

Kent also questions why PUCO staff signed onto AEP Ohio's stipulation.

"I have a tremendous amount of respect for staff," he said, but, "I don't know what caused staff to not adhere to the principles and virtues that they've been putting out for the last several years in this case."

The PUCO declined to comment.



The AEP Building at 1 Riverside Plaza in Columbus.

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What's next?

The PUCO is months from deciding on the two competing proposals, officials said.

Evidentiary hearings in the case started Dec. 3 and wrapped up Jan. 17. There is an early April deadline for briefs and replies.

After that, the PUCO will decide what direction to go. But there is no timeline for a decision after the filing deadline.

Then there's <u>Anduril</u>, <u>which plans to grow its northern Pickaway County</u> <u>complex to 5 million square fee</u>t and has pledged 4,000 jobs – the most by a single project in state history.

Of course, that also means a lot of power.

AEP Ohio will not deliver electricity to the plant, which is located within

South Central Power Co.'s service area.

Mark Owen, a spokesperson for South Central Power, said he couldn't release specifics about the project. He did, however, say that the electric cooperative is "well positioned and prepared to serve any new large load at a site such as (this) one."

"Fortunately, we have the generation capacity to serve this load and there are transmission upgrade projects going on around the state that will be ongoing as well to serve the many new energy intense loads we see locating across the state," Owen said in an email.

"In order to ensure reliability and keep energy affordable for everyone, we continue to advocate for an 'all-of-the-above' approach to power generation, leveraging fossil fuel plants as well as nuclear, hydro and intermittent sources like solar and wind," he added.