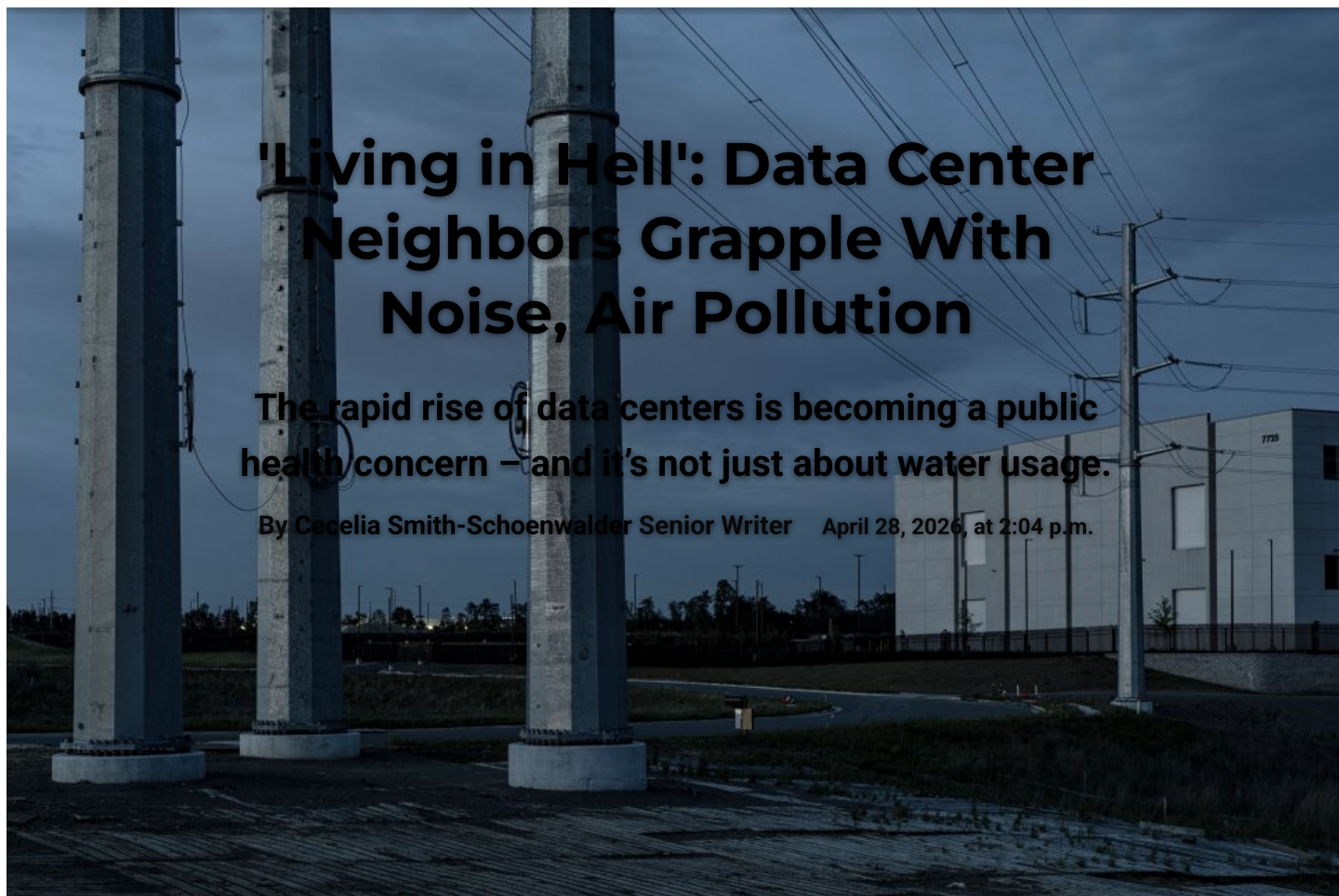




'Living in Hell': Data Center Neighbors Grapple With Noise, Air Pollution

The rapid rise of data centers is becoming a public health concern – and it's not just about water usage.

By Cecelia Smith-Schoenwalder Senior Writer April 28, 2026, at 2:04 p.m.

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A data center is seen at night in Gainesville, Virginia, on April 21, 2026.

Donna Gallant spent a lot of money on the windows in her house in Bristow, Virginia. But the sound from Google's "Mango Farm" data center complex still penetrates her home.

"As somebody who has anxiety, it triggers an anxiety attack in me every time they're doing load testing, to the point where I can't sleep because it literally rocks your core," Gallant says.

Americans who find themselves neighboring data centers have long criticized the accompanying increased energy costs that hurt their wallets. But the expanding presence of these sites may be hurting something else, too – their health.



increased risk of respiratory disease, cardiovascular disease, mental health struggles, stroke, diabetes and adverse reproductive outcomes like miscarriage and stillbirth.

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As the number of data centers surges, residents are worried, politicians are pushing for reform and researchers are scrambling for – ironically – more data.

‘Nobody’ Talking About Health Impacts

The U.S. has more than [4,000 data centers](#), which is nearly eight times the number of any other country. With [thousands more](#) planned or under construction, their energy demand is expected to [more than double](#) by 2030.

Few studies have examined how data centers affect health, but findings so far suggest data centers [warrant closer scrutiny](#) as a potential public health concern.

“Really nobody is talking about the health impacts of data centers,” says Neha Gour, one of the authors of the new study, which was published in the journal *Frontiers in Climate*. “And today, when we talk of digital infrastructure, or even any infrastructure for that matter, not including a health component is a huge gap that we need to address.”

Gour’s study focused on Northern Virginia, an area often referred to as “Data Center Alley” because it is one of the largest concentrations of data centers in the world. It is home to [more than 500 data centers](#) that handle a significant portion of the world’s internet traffic, as high as 70% by some estimates.



“The number of facilities continues to grow, and the proposed data centers are not only going to be more in number, but significantly larger in size,” says Gour, a doctoral candidate and affiliated researcher with George Mason University’s Center for Climate Change Communication.

Like a ‘Health Earthquake’

Air pollution is the most acute health concern for people living around data centers.

The growing demand for artificial intelligence could push the annual public health

Riverside associate professor who has also studied the health impacts of data centers. The air pollution from data centers could contribute to about 600,000 asthma symptom cases and 1,300 premature deaths by the same year.

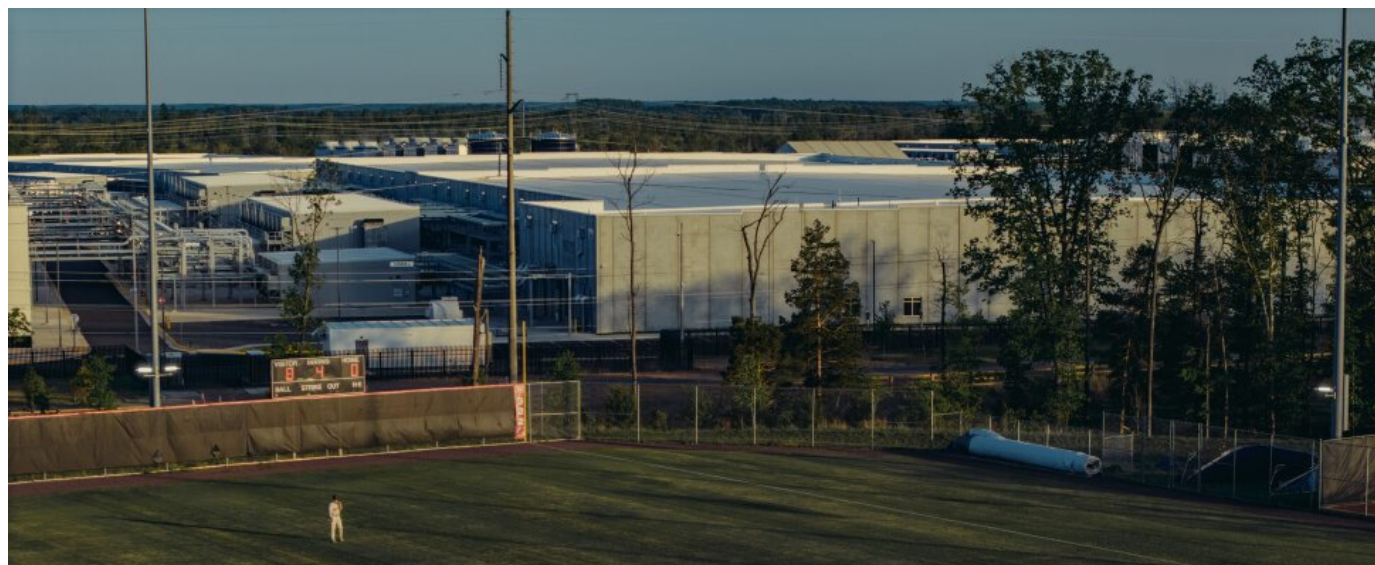
Virginia's heavy reliance on fossil fuels for its electricity generation contributes to greenhouse gas emissions and air pollution, which are linked to serious health harms like cancers, neurological disorders, childhood asthma and reduced fertility, according to Gour's study.

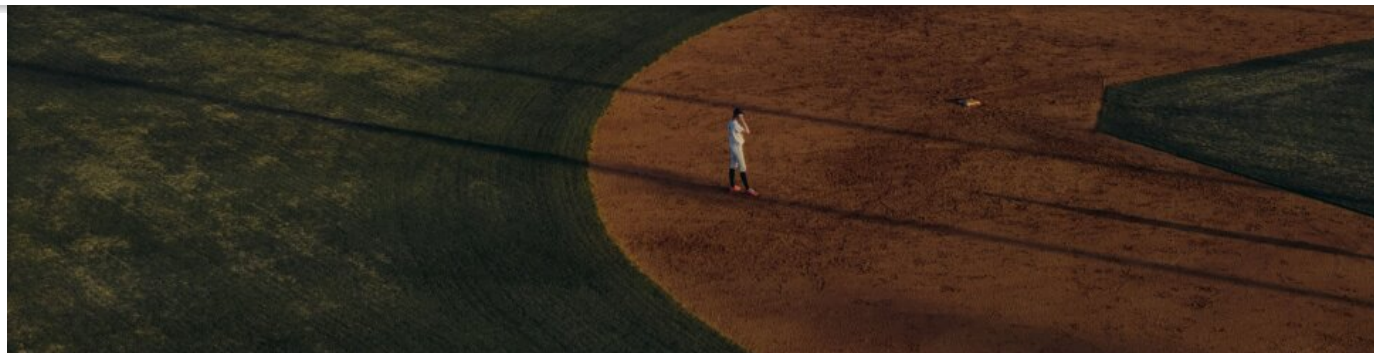
"Data centers in Virginia are a major source of air pollution attributable to their round-the-clock energy-intensive operations, a critically strained electric grid and backup diesel generators," the Northern Virginia study says.

As demands on the grid grow, data centers might have to rely more on their backup diesel generators, Ren said. In the event of a large outage, data centers relying on diesel generators "could emit their maximum permitted emissions within just days," Ren says.

"If you have a place that is dumping all these emissions – their annual emissions – in just a couple of days, that's like a health earthquake," he adds.

The emergency scenario is not far-fetched. During a recent winter storm, Energy Secretary Chris Wright [authorized](#) some electric utility companies to direct data centers to run their backup generators to help relieve pressure on the grid.





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Part of Google's "Mango Farm" data center is seen next to a baseball field at Gainesville High School, in Gainesville, Virginia, on April 21, 2026.

Air Isn't the Only Pollution Problem

Gallant, who moved to Prince William County about 30 years ago because it was "quiet" and "beautiful," now finds herself in an area she says is "becoming an industrial wasteland."

She describes the sound of testing at the nearby data center complex as "an internal organ vibration" that feels "100% unnatural."

Backup diesel generators, construction, cooling systems and other machinery at data centers all produce sound.

"Because these data centers operate 24/7, they generate persistent background noise, and chronic exposure to environmental noise has been associated with sleep disturbance, hypertension, cardiovascular diseases and even stress-related outcomes," Gour says.

Noise pollution can be especially harmful to children, as it has been linked to poor cognition, decreased learning and lower reading comprehension.

Gallant says she's also concerned about light pollution produced by the data centers.

"We don't see the dark of night anymore," she says.

Additionally, the large amounts of water needed for the cooling systems at data centers come with health concerns. A medium-sized data center consumes as much



Each consumption exacerbates local water insecurity, increasing the risk of waterborne diseases, dehydration and poor hygiene in affected communities," the study states.

The Data Center Coalition, a trade association for the data center sector, did not respond to a request for comment about the health concerns.

Communities Are 'Living in Hell'

Kathy Kulick of Virginia's Prince William County helps lead a coalition of homeowners and civic associations concerned about the boom of data centers in the area.

"We have a full-blown crisis on our hands here in Prince William County," Kulick says of the data centers.



amendments for the board to consider. But the board [disbanded the advisory group](#) and passed a noise ordinance that was significantly weaker than the group's proposal.

"Go out and sit next to your air conditioner outside your home and try to sit there for 10 minutes without being totally annoyed by it," Kulick says. "But eventually that one turns off. Data center cooling equipment never turns off. Never. The communities that are inundated with this are truly living in hell."

Gallant and others [sued in 2024](#) to try to stop nine new data centers from going up in Bristow. A judge later [dismissed the case](#).

Local opposition, however, is accelerating and having an effect on the projects, according to Data Center Watch. The [research firm found](#) that from March to June last year, 20 projects valued at an estimated \$98 billion were blocked or delayed.

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A three-judge panel in March [halted a project](#) in Prince William County that would have yielded a 2,100-acre data center near Manassas National Battlefield Park amid strong local opposition. The Prince William County Board of Supervisors [voted not to appeal](#) the decision to the Virginia Supreme Court.

One of the reasons Virginia is so attractive for data center developers is its tax benefits. Data centers received more than \$1.9 billion in tax exemptions in [fiscal 2025](#).

Prince William County Delegate Josh Thomas says he hears about data centers from his constituents on a regular basis.

"It's a defining issue for all of Virginia," he says.

Then-Virginia Gov. Glenn Youngkin [vetoed a bill](#) from Thomas last year that would have required data center applicants to assess and report certain noise and environmental impacts for their projects.

But [the bill](#) passed this session, and Gov. Abigail Spanberger signed it into law in April.

Thomas and Kulick both called Prince William County a "cautionary tale" for other



more and more people are now being impacted by it, so they're taking it very seriously," Kulick says. "This problem will only get worse."

Tags: pollution, health, public health, technology

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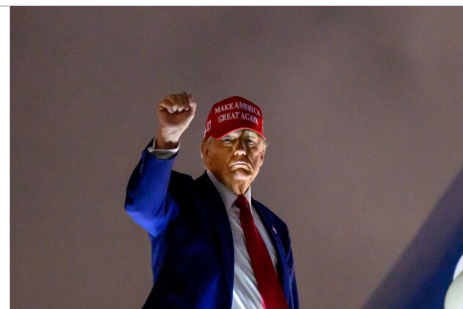
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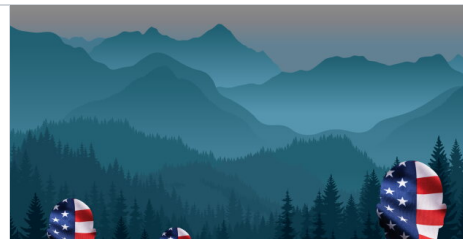
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