

ISSUE BRIEF

THE DATA IS CLEAR: UNCHECKED DATA CENTER GROWTH THREATENS PUBLIC HEALTH AND THE ENVIRONMENT

Across the country, people in urban and rural areas alike are waking up to news that their local officials have signed nondisclosure agreements (NDAs), offered tax breaks, and are racing to approve new data centers with little public transparency. As of August 2026, the United States had more than 3,300 operational data centers and nearly another 1,500 in the works, by far the most of any country in the world.¹ The AI-driven data center build-out is worsening air, water, and noise pollution, straining water supplies, increasing health impacts for host communities, raising consumer electricity bills, and straining our electric grid.

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Amazon data center in Sterling, VA on March 14, 2026. Data centers require large amounts of natural resources, including water, to run. Northern Virginia has the largest concentration of data centers in the world, managing roughly 70 percent of global internet traffic.

NRDC’s 2025 report *At the Crossroads: A Better Path to Managing Data Center Load Growth* discussed how to manage data center electricity demand in order to avoid greenhouse gas emissions, higher electricity bills, and strained grid infrastructure.² The *The Data Is Clear: Unchecked Data Center Growth Threatens Public Health and the Environment* report will cover the other environmental and community harms posed by the rapid data center buildout these centers including: air pollution; water usage; water pollution; land and ecosystem impacts; toxic chemical usage; impacts to the land a facility is sited on; noise pollution; waste heat; and e-waste.

These impacts are notably concentrated in under-resourced rural areas (Figure 1). According to Pew Research, 67 percent of planned data centers are in rural areas, with hot spots in Virginia and Texas.³ Data centers constructed in neighborhoods already heavily impacted by historic and current industrial activity and discriminatory siting practices may pose added public health threats to the people who live nearby. The impacts can be devastating to local communities if not proactively prioritized from the very first development decisions, and subjected to rigorous, legally enforceable safeguards once operational.

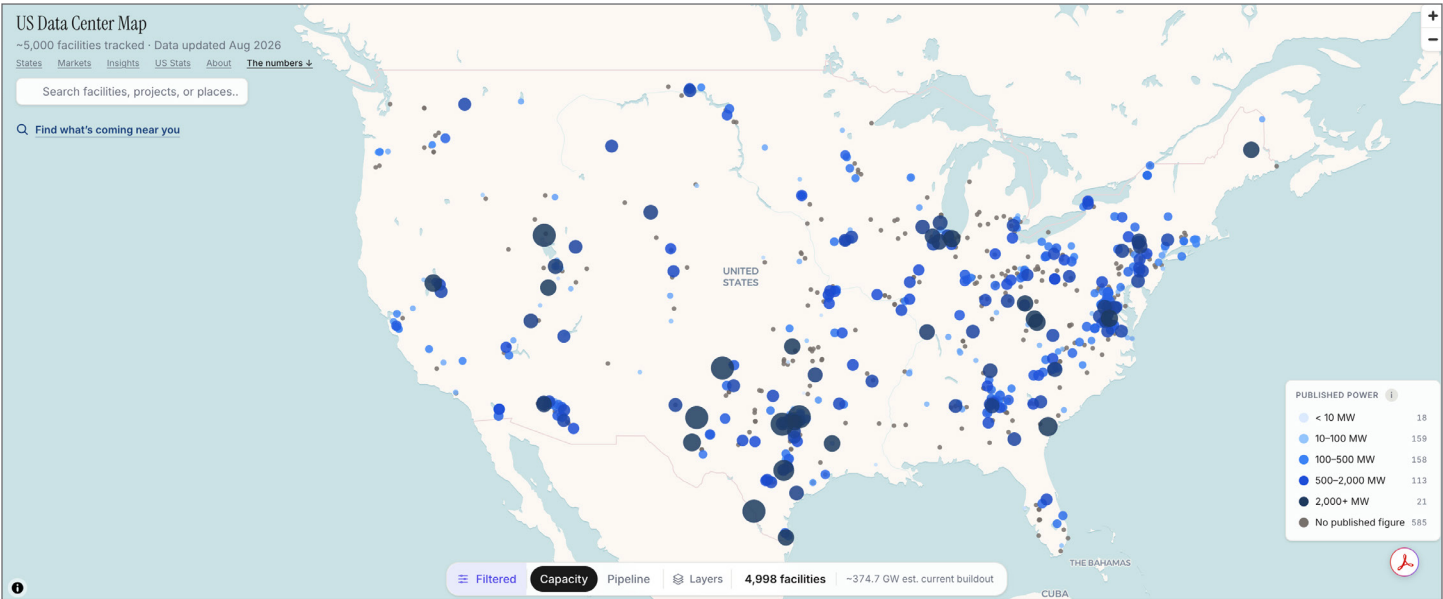
Community awareness of an impending data center often comes when it’s too late to do anything about the project and its potential harms. In some cases, local officials have limited power to delay, shape, or deny data center permits on the basis of energy or water use. State laws may preempt action by local officials, or existing local standards may not tackle energy usage or water consumption. Meanwhile, state legislatures and governors across the country are faced with public pressure to slow or halt data center development on one side and enormous industry pressure to get data centers online as soon as possible from the other side.

At the federal level, the Trump administration’s July 2025 “Accelerating Federal Permitting of Data Center Infrastructure” executive order outlines a series of concerning regulatory proposals that will weaken environmental and permitting reviews for data centers under key environmental laws such as the Clean Air Act; the Clean Water Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Toxic Substances Control Act; and the National Environmental Policy Act.⁴ The Environmental Protection Agency (EPA) has released guidance encouraging the development of data centers on Superfund and brownfield sites.⁵ In some documented instances, data center developers have used their outsize resources and political power to build facilities in violation of laws and/or without adequate community engagement or transparency. Given these pressures, it’s unsurprising that among the hundreds of state data center bills that have been introduced, and of the roughly 100 that have passed, relatively few address the health and environmental concerns discussed herein.

People should have the right to decide the quality of life in their communities—whether they want to host data centers and, if so, what standards of care these facilities must satisfy. Data centers should comply with the highest standards to protect public health, natural resources, climate goals, and all other quality-of-life considerations.

This brief will explore the potential health and environmental impacts caused by data center development in the United States and propose recommendations to policymakers and communities to respond to the large-scale build-out of data centers.

Figure 1: Map of U.S. Data Centers



Source: US Data Center Map, data as of August 2026, <http://dcmmap.us>.



Industrial cooling systems on a rooftop at the Dalles Google Data Center, a hyperscale data center in the Dalles, Oregon.

DATA CENTERS CAN INCREASE DANGEROUS AIR POLLUTION

Producing the energy used to meet the enormous power demands of data centers causes significant amounts of air pollution and associated health hazards, especially for communities living in proximity to these facilities. While some tech companies are investing in new clean electricity generation, the majority of the newly created energy demand will be met by new or expanded fossil fuel generators powered by methane gas or diesel. In addition to threatening the climate, fossil fuel combustion increases air pollution and imposes an enormous toll on air quality and public health. One study from a team at the University of California, Riverside, estimated that air pollution from U.S. data centers could contribute to as much as 600,000 asthma cases and 1,300 premature deaths in 2028.⁶ In some cases, the additional air pollution from data centers comes on top of decades of industrial pollution, compounding the health issues already experienced by disproportionately burdened communities.

Air pollution from offsite primary power

Utilities nationwide are constructing new polluting methane gas plants and delaying the retirement of dirty coal plants to meet the massive increase in energy demand from data centers. Methane gas combustion increases emissions of numerous air pollutants (nitrogen oxides, carbon monoxide, fine particles, hazardous chemicals) as well as carbon dioxide

and unburned methane. Texas's data center build-out alone will be powered by nearly 40 gigawatts (GW) of new methane gas-fired power capacity.⁷

Coal is the most expensive, least efficient, and dirtiest source of electrical power—and its usage is increasing thanks to data centers. Burning coal releases dangerous air pollution like particulate matter, smog-forming nitrogen oxides, and sulfur dioxide, along with hazardous air pollutants like mercury, lead, arsenic, benzene, and acid gases.⁸ These pollutants cause or exacerbate numerous health harms including asthma, chronic bronchitis, cardiovascular and immune system damage, heart attacks, strokes, cancer, neurological damage, and premature death. Coal combustion is one of the major causes of the haze that shrouds vistas around national parks and wilderness areas; it also leads to acid rain that acidifies waterbodies, damages forests and plants, and erodes building materials. Burning coal and methane gas produces the heat-trapping air pollution that is driving the climate crisis. The sludge and coal ash generated by coal also pose a threat to human health and the environment. Short-term exposure to coal ash can lead to shortness of breath, dizziness, and vomiting, whereas long-term exposure can damage every major organ in the body and can cause birth defects, neurological disorders, and cancer.⁹

Notably, while using coal- and methane gas-generated power for the electrical grid causes air quality and health harms that occur locally and regionally, emissions also can be carried hundreds of miles away from their sources. These massive

facilities' tall smokestacks mean that degraded air quality happens over huge regions and impacts millions of people.

As of November 2025, utilities had postponed the previously planned retirements of 30 generating units at 15 coal-fired power plants to meet increasing energy demand.¹⁰ The Trump administration is fueling this backsliding, including through Department of Energy emergency orders requiring coal plants to continue running and Trump's "Reinvigorating America's Beautiful Clean Coal Industry" executive order, which directed the secretary of the interior, secretary of commerce, and secretary of energy to "assess the market, legal, and technological potential for expanding coal-based infrastructure to power data centers."¹¹

President Trump even invoked the 1950 Defense Production Act to dole out nearly \$500 million to 13 existing coal-burning power plants so they could continue to operate, while simultaneously directing nearly \$200 million more in taxpayer dollars to build the first two new coal plants in the United States in more than a decade.¹² An EPA press secretary even called it "commonsense energy policy" to delay the retirement of coal-burning power plants in order to "keep American AI dominance online."¹³

Additionally, the Trump administration's EPA has proposed or finalized several regulatory rollbacks that will loosen pollution control requirements that otherwise would apply to coal plants.¹⁴ These include safeguards limiting water discharges, requirements for operating and closing coal ash dumps, limits on mercury and other hazardous air pollutants, and carbon pollution standards.

Air pollution from on-site primary power

In the drive to develop new data centers, many technology companies are choosing to build their own methane gas combustion turbines or other engine types on site to avoid delays connecting to the grid, which can sometimes take as long as seven years. This form of on-site energy production is often called "behind-the-meter" power generation. Of the 378 GW of new gas capacity in development in the United States in the first half of 2026, the Global Energy Monitor projects 189 GW of new gas capacity will be added on-site at data centers.¹⁵

But because there is a backlog on the availability of heavy-duty combined-cycle methane gas turbines, many data center developers are instead using alternatives such as gas generators strapped to semitrucks, aeroderivative turbines originally designed for aircraft and warships, reciprocating engines, and refurbished turbines acquired from industrial operations. Unlike power plants that spew air pollutants from tall stacks, these generators can emit pollutants at ground level and operate just feet from homes, schools, and community centers. In Memphis, xAI's the Colossus 1 and Colossus 2 data centers were built and fully powered by unpermitted on-site methane gas turbines constituting a de facto power plant, each facility alone consuming more fuel than Memphis International Airport, which is the primary shipping hub for FedEx.¹⁶

Air pollution from on-site backup power

Data centers rely primarily on dirty diesel generators for emergency power when the grid is interrupted or there are disruptions in on-site primary power. Due to industry practices and competition, data centers often are built to be online 99.999 percent of the time, with only 5.26 minutes of downtime per year.¹⁷ To prevent excess downtime, data centers will not only have sufficient backup power to match their peak power demand but often have redundancy should any of the backup diesel generators fail. Backup generators are tested frequently and may run up to 100 hours per year during maintenance, testing, and other nonemergency situations.¹⁸ Diesel generators emit 95 percent more smog-forming nitrogen oxides than an equivalent gas generator, as well as 98 percent more non-methane hydrocarbons and 59 percent more carbon monoxide.¹⁹ These generators also emit air pollution at ground level, which means more immediate impacts to nearby homes, schools, and parks.

A joint analysis from Virginia Commonwealth University and the University of Washington found that the 10,500 diesel generators attached to existing data centers in Virginia have the same impact on public health as five large methane gas-burning power plants.²⁰ Another study found that these Virginia generators emit enough air pollution to trigger approximately 14,000 asthma attacks every year and cause emergency room visits to skyrocket.²¹

DATA CENTERS CAN IMPACT OUR WATER RESOURCES

Manufacturing data center servers, cooling these servers, and generating power to run them can use large amounts of water. The effects on local water systems, including water quantity, quality, and affordability, vary primarily according to the type of cooling system employed. Data centers typically use either evaporative cooling, air cooling, immersion cooling, or some combination of the three. Evaporative cooling relies on the cooling power of water evaporation, sometimes through a closed loop system that recirculates water several times before discharging it. As the name implies, air cooling uses air conditioning, fans, and vents to generate and move cold air, relying more on electricity than on water. Immersion cooling is a chemical refrigerant-based system that directly submerges servers in a dielectric fluid. Water use and consumption from off-site energy production (e.g., from coal, methane gas, nuclear) and off-site water consumption from server manufacturing play major and often overlooked roles in the entire industry's demand for and use of water resources.²²

Water usage

Cooling systems for data centers and power-generating units can pull from surface water, groundwater, and recycled water—often by tapping into municipal water and wastewater systems. A report from the Lawrence Berkeley National Laboratory estimated that in 2023 U.S. data centers consumed 17 billion gallons (66 billion liters) of water directly through cooling and an additional 211 billion gallons (800 billion liters) indirectly through their electricity



A drought stricken portion of Medina Lake on March 20, 2025, in Medina County, Texas.

consumption.²³ That said, generating power from fossil fuels uses vastly more water than wind and solar. In fact, a single data center in Iowa consumed one billion gallons of water on site in 2024, roughly equivalent to the amount of water used by all households in the county in which it is located.²⁴

Communities and watersheds already contending with water scarcity and limited infrastructure capacity are the most vulnerable to water supply impacts from data center development. Data center water demand often peaks during the hottest periods of the year, precisely when communities and ecosystems already are under the greatest water stress, further intensifying water shortages. According to Bloomberg, roughly two-thirds of the data centers built since 2022 are located in already water-stressed areas.²⁵

When data centers draw from groundwater aquifers, nearby private wells may run dry or draw muddy or foul-smelling water.²⁶ In Newton County, Georgia, just months after the construction of a Meta data center, people started noticing drops in water pressure until taps ran completely dry.²⁷

Water pollution

When water is drawn into a cooling system, it is common for data centers to add a slurry of chemical agents, such as anti-scaling chemicals, biocides, and corrosion inhibitors. In evaporative cooling systems, the remaining, unevaporated water, often referred to as “blowdown wastewater,” is generally discharged into local municipal sewer systems or nearby waterways.²⁸ The blowdown discharge water can be very hot and can carry high concentrations of salts and

other dissolved solids (e.g., chloride, silica, and nitrates present in the intake water), chemical additives, and PFAS (per- and polyfluoroalkyl substances), often referred to as forever chemicals.²⁹ Even closed-loop systems can release contaminated water when they are flushed or drained. All of these impurities have the potential to degrade surface water and compromise drinking water quality, making it less safe for human consumption, aquatic habitats, and agricultural uses.³⁰

Discharge to municipal wastewater systems for treatment is not an adequate fail-safe, as treatment facilities are not necessarily properly equipped to address the wide range of pollution concerns. To make matters worse, industrial entities do not publish details on the chemicals used in their facilities and claim the information is confidential, stifling the ability of wastewater treatment plant operators to anticipate and remove new pollutants.

Water affordability

Data centers sited in places with excess water capacity could theoretically help reduce water bills for existing customers by adding a large user to help cover the system’s fixed costs. However, in practice, they are more likely to shift costs onto local rate payers via increased water utility costs for existing customers if their facilities pull from municipal water systems and are sited in areas with water supply constraints and/or limited infrastructure capacity to treat and deliver water.³¹ The required infrastructure improvements and expansions are driven largely by the peak daily water use of data centers rather than total annual use.³²

In The Dalles, Oregon, for example, reporting found that a Google data center uses a third of the total water consumed by the city. The Dalles 2024 Water System Master Plan forecasts that an undisclosed “large industrial user” will need one million gallons of water per day (the amount Google currently consumes in The Dalles) and walks through a list of infrastructure improvements required to meet this demand, totaling \$260 million over the next 20 years. Google’s property taxes should cover a quarter of these investments, but Oregon Public Broadcasting reports that the rest will come from loans and higher water rates for customers, with residential water rates projected to rise nearly 100 percent by 2036.³³

In addition, many data centers discharge wastewater into municipal sewage treatment systems. Where these systems lack adequate capacity, infrastructure improvement costs to accommodate data centers can drive up costs for existing customers.

DATA CENTERS CAN RELY ON TOXIC PFAS “FOREVER CHEMICALS”

The intersection of PFAS and data centers is a growing concern. PFAS comprise a class of more than 20,000 synthetic chemicals widely used in industrial settings for their oil and water repellency, temperature resistance, and friction reduction.³⁴ These chemicals are already present virtually everywhere across the country, contaminating the drinking water supplies of up to 200 million people across the country and the blood of more than 98 percent of people tested in the United States.³⁵ These chemicals pose real public

health threats, including but not limited to cancer, effects on the liver, low birth weight, hormone and immune system disruption, increases in cholesterol, and nervous system and reproductive harms.³⁶ Moreover, these harms do not appear solely at high levels of exposure. Many PFAS pose health risks at the lowest measurable exposure levels, and studies link adverse health effects in both humans and wildlife to PFAS exposure levels occurring in the environment.³⁷

Any new source of potential PFAS exposure is a significant public health concern, and in the context of data centers, PFAS are pervasive. They are used for cooling purposes, in emergency fire suppression systems, and in data center components like semiconductor chips, cable insulation, pumps, and robotics.³⁸ Some PFAS are used as coolants because they have lower flammability and do not conduct electricity.³⁹ Data centers may use refrigerant compressor systems that rely on fluorinated gases, such as hydrofluorocarbon compounds (HFCs, which are being phased out due to environmental concerns) or hydrofluoroolefins (HFOs), both of which can degrade into other toxic PFAS.⁴⁰ PFAS chemicals are also used in immersion cooling liquids, where servers and equipment are submerged in chemicals for heat transfer, and for direct-to-chip cooling, where cooling plates are used to cool chips.⁴¹ At least one PFAS manufacturer has stated that there are PFAS evaporative losses at data centers which translates to immediate localized air pollution. Production and use of PFAS can potentially lead to releases of these highly mobile chemicals from wastewater discharges, air releases, stormwater runoff, leaks, and end-of-life handling and disposal.⁴²

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A massive hyperscale data center campus, located along the Columbia River in The Dalles, Oregon, USA.

Further concerns include the acceleration of semiconductor manufacturing to feed AI data centers—a process heavily reliant on PFAS; and the landfilling of large amounts of e-waste (microchips and other electronic equipment), another potentially sizable source of PFAS released into the environment.

DATA CENTERS CAN HAVE ENORMOUS PHYSICAL FOOTPRINTS

Data center development can harm wetlands and streams through land clearing and construction. For instance, a recently proposed data center in Michigan would permanently destroy more than 13 acres of wetlands and alter nearby streams in a region that has already lost most of its historic wetland area.⁴³ A planned data center campus in Virginia would disturb multiple wetland areas and thousands of feet of stream channel as part of site development.⁴⁴ Wetlands play a critical role in filtering pollutants, storing floodwaters, and sustaining biodiversity, so their loss can have a huge impact on environmental health and public safety. Even when data center developers propose mitigation projects (like creating or restoring wetlands elsewhere), these replacement systems may not fully replicate the ecological functions of the original wetlands.

Stormwater runoff from data centers is an issue during site development and after construction. Once built, these large buildings and surrounding paved surfaces can cause flooding, erosion, and water pollution issues in addition to reducing aquifer replenishment. Stormwater runoff from data centers likely carries sediment and can contain nutrients and heavy metals.

When a data center is ultimately decommissioned, we have to think about not only what happens to the materials, but also what happens to the land. Given the breadth of environmental impacts from the facility's operation, the land may not fully recover, even with remediation efforts, especially in agricultural areas and sensitive ecosystems.

DATA CENTERS CAN CREATE DANGEROUS LEVELS OF NOISE POLLUTION

Communities living in proximity to data centers experience a range of quality-of-life issues including noise pollution. The combination of diesel generators and cooling systems at data centers creates a constant, high-decibel hum that pervades the surrounding area. Neighborhoods that once were quiet alcoves are drowned out by constant, disturbing noises from data centers. Noise levels above 65 decibels can increase blood pressure and cause sleep deprivation, while noise levels above 85 decibels are considered harmful to people's ears. With thousands or even tens of thousands of computer servers operating 24/7, data centers can raise continuous noise levels up to 96 decibels.⁴⁵ And noise from industrial-size backup generators can reach as high as 105 decibels, comparable to the noise of overflying jets.⁴⁶

Some of the noise pollution can be low-frequency sound waves, called infrasound, that are felt as pressure fluctuations and can leave residents with chronic sleep deprivation and headaches.⁴⁷ In fact, residents of Dowagiac, Michigan, living within one mile of a data center filed a lawsuit alleging that continuous noise from cooling systems, running 24 hours a day, seven days a week, has harmed their quality of life.⁴⁸

DATA CENTERS CAN INCREASE TEMPERATURES IN SURROUNDING COMMUNITIES

Operating the electronic components of a data center generates a tremendous amount of heat. Almost every cooling method dumps this waste heat outside the building, which raises temperatures of the surrounding area. This is especially problematic in states routinely facing high temperatures, as well as communities experiencing urban heat island effects because of the prevalence of heat-absorbing materials like asphalt and concrete, a lack of green space, and limited access to air conditioning.⁴⁹

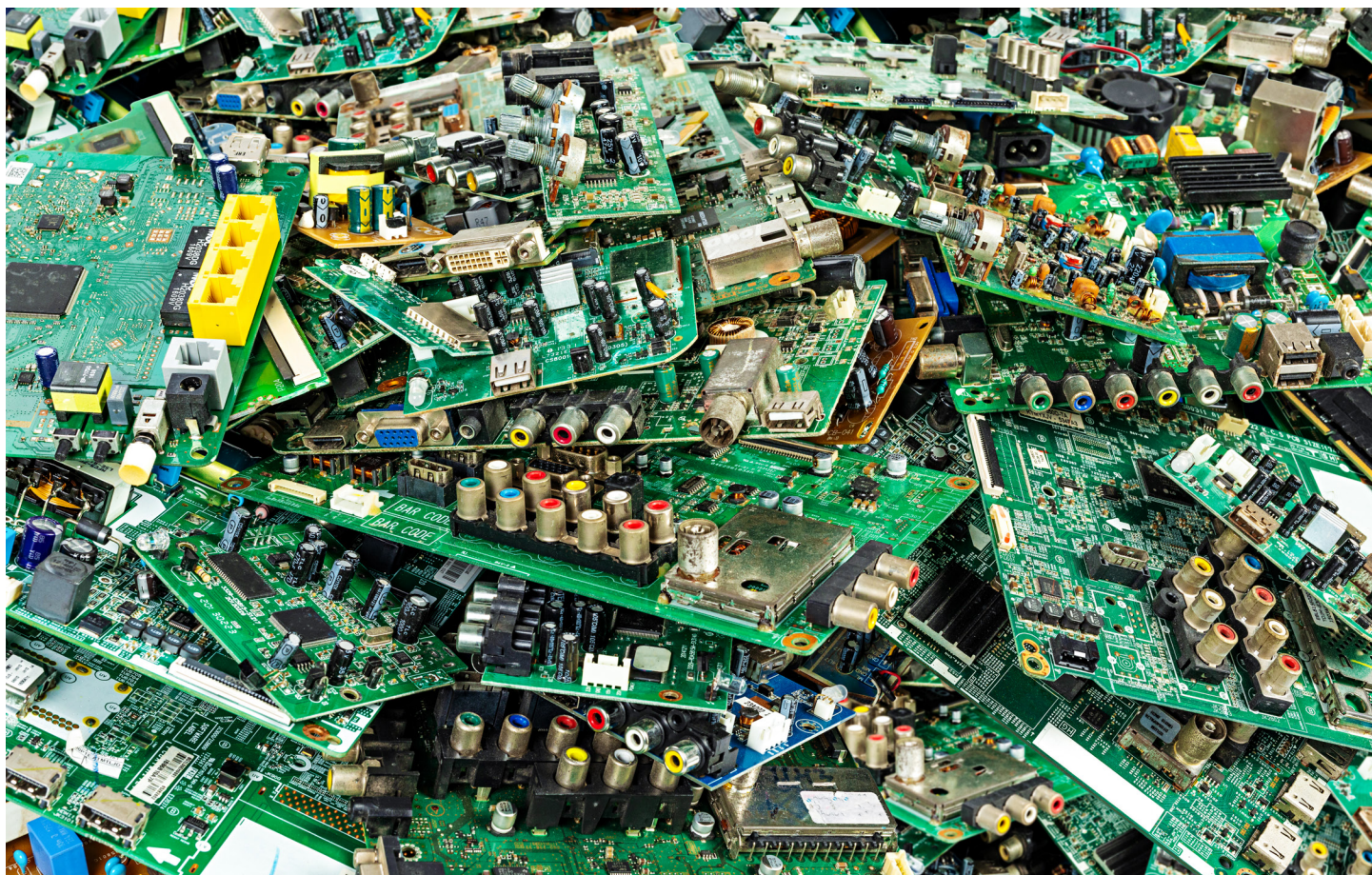
One study measured changes outside two smaller data centers (36 megawatts and 169 megawatts) in Phoenix, where the facilities generate waste heat equivalent to the electricity consumption of 40,000 and 180,000 households, respectively. Within a third of a mile of the facilities, researchers measured average temperature increases of 1.26–1.63 °F, with a maximum increase of nearly 4 °F.⁵⁰ A preliminary study estimated that the proposed 9 GW Stratos data center near Salt Lake City could increase daytime temperatures by 5 °F and nighttime temperatures by a much greater margin.⁵¹ More research is needed to document the impacts of waste heat on nearby communities and suggest ways to minimize these impacts.

DATA CENTERS CAN GENERATE SIGNIFICANT E-WASTE

One study estimated that global generative-AI hardware produced between 2020 and 2023 may account for up to five million tons of e-waste by 2030.⁵² The large volume of e-waste is a result of graphics-processing units being continually replaced by faster chips, often with a life cycle of just one to five years. E-waste often contains toxins like lead, mercury, and cadmium, which can contaminate our air, water, and soil and cause birth defects, cancer, and respiratory diseases if sent to landfills.⁵³ An additional concern is that e-waste is often shipped to countries in the Global South, exporting the same public health and environmental hazards abroad.

HOW WE CAN TACKLE THE ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS OF DATA CENTERS

The harms detailed above do not land on communities in isolation—they compound the historic and current industrial burdens many of these neighborhoods already carry, including a disproportionate burden of pollution from multiple sources, the concentration of locally unwanted land uses within and around a community, and extractive



industrial operations that provide little to no material benefits to local residents. In nonindustrialized, rural counties, data centers can occupy enormous amounts of land and introduce unwanted development, unsustainable water consumption, damaging pollution, and noise. Addressing the breadth of data center impacts requires a multipronged, coordinated approach that: ensures full transparency with regulators and communities; adopts strong local, state, and federal regulations; defends against threats to our existing laws; holds facilities accountable for following federally and state-mandated permitting processes; and encourages more research to empower communities and ensure that lawmakers can make informed decisions.

Require transparency and opportunities for public participation

Lack of public disclosure is a significant barrier for regulators and communities wishing to understand the public health and environmental costs of data centers. Data center decision-making must not happen behind closed doors or with NDAs. This means banning the use of NDAs by government officials and guaranteeing that all approval processes—for example, for zoning, siting, and permitting—include meaningful opportunities for public participation. Participation should be encouraged via advanced notice before deals are signed, plain-language impact disclosure, and independent technical assistance to guide community members through lengthy environmental impact reports.

Before entering into binding contracts for land purchases and future development developers and operators should be required to disclose important information on energy and water use; air, water, and noise pollution; and other facility-level information that policymakers, regulators, and communities will need in order to make informed decisions. This must come with enforceable cumulative-impact thresholds in zoning ordinances that determine where and whether a facility can be built based on the aforementioned information and be followed up with annual reports once a facility is operational.

Establish rigorous safeguards

In venues where data center decisions are being made—city councils, zoning boards, state and federal legislatures, public service commissions, governors' offices, regulatory agencies, and the courts—decision-makers need to adopt and enforce policies and safeguards that will prevent fossil fuel lock-in, minimize health and environmental harms, and strengthen local control. Data centers should not be located in communities that already face a heavy burden of air or water pollution or existing or anticipated water shortages. Facilities should not be built in wetlands or on floodplains, nor should they be built in a way that fills in streams. Where impacts to these areas cannot be avoided, the project developer must fully mitigate the lost functions of freshwater ecosystems, whether or not such areas are protected under federal law. They should be sited far enough from residential areas or

homes to protect them from the worst public health impacts.

Tech companies worth trillions of dollars should be held accountable for using the best available technology to power their facilities, cool their servers and power sources, minimize noise, and avoid air and water pollution. This means relying on clean energy like wind and solar (which use far less water) and not fossil fuels, using best available pollution controls, minimizing water usage and demonstrating that water consumption is sustainable, avoiding the use of toxic chemicals like PFAS in cooling systems, and investing in water treatment prior to discharging wastewater. It also means making sure data centers pay their way for all water and energy uses and infrastructure. And when data centers are decommissioned, those costs should be shouldered by data center owners and not the communities in which they are sited.

Fight federal rollbacks

The Trump administration has been rolling back environmental and health regulations that have protected Americans for decades. It is more important than ever that we ensure that data centers obtain all appropriate permits and are held accountable for complying with these permits. Federal and state regulators must not weaken health and environmental safeguards for unconventional and harmful energy sources that developers are adopting to power data centers. Developers must not start construction on data centers before regulators and communities review whether the facilities should be approved, or before the most protective air and water pollution control measures are required and permits are issued.⁵⁴

Challenge facilities that break the law

In addition to broader legal and policy solutions, lawmakers, agencies, and the public must ensure full compliance by data center operators with air, water, noise pollution, and construction permits and standards whenever noncompliance arises during permit proceedings or subsequent operations. Legal oversight is desperately needed to challenge legally defective, unprotective permits and approvals; to pressure regulators to enforce existing environmental safeguards and adopt new laws and regulations; and to identify the regulatory gaps that expose communities to unsafe conditions and inadequate protections.

Ensure economic benefits are shared with communities

Data centers can generate real economic activity, including construction jobs, property-tax revenue, and infrastructure investment. But these benefits are often unevenly distributed, temporary, or dependent on public subsidies, while the costs are borne locally and persist over time. Communities therefore need enforceable governance frameworks that both mitigate for negative externalities that can't be fixed through better project design or permitting and ensure local communities tangibly benefit from these facilities.

Collect more information

Communities are shouldering the burden of the technology sector's rapid construction of data centers without a full understanding of their potential risks. More research—both at the industry and facility level—is needed to understand the full scope of the environmental, health, economic, and social harms and costs that unwelcome and badly conceived and operated data centers are imposing on communities. This research must be leveraged to inform policy design, empower communities, and deliver safeguards and solutions to mitigate the harmful, costly impacts of data center development. Through this research, policymakers and communities can reach better-informed decisions regarding whether they want data centers at all and, if so, what standards of care and responsible operation they should be subject to.

CONCLUSION

The country is at a key inflection point in understanding the full scope of health harms and risks associated with the build-out of data centers. Given the scale and speed of the industry's growth, decisions made now will shape energy systems, public health, environmental outcomes, and communities' quality of life for decades. Communities that already have been asked to absorb pollution, disinvestment, and industrial harm are being forced again to shoulder the faster, larger-scale, less transparent build-out of data centers and artificial intelligence. Meanwhile, the character and quality of life in many rural areas are worsening, suddenly and irreversibly. This pattern cannot continue. Technology companies, utility companies, government officials, politicians, and all decision-makers should be held accountable for the impacts of data centers. Now is the moment to ensure that, where data center development occurs, it is transparent, equitable, and grounded in strong safeguards that preserve and advance communities' quality of life, with their full involvement and consent.

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