

Data Centers: The Good, the Bad and the Truly Ugly

Kent Environmental Council

“I cannot stress how frustrated people are with this topic,” Ohio Farm Bureau vice president Jack Irwin told Cleveland.com. Truer words on the topic of data centers have not been spoken and it has become the rare issue that seems to be uniting the left and the right.

In the following paragraphs The Kent Environmental Council will try to put this “fire hose of information” into perspective. The preponderance of what we offer here is intended to help us all understand the risks these tech developments present to our environment and our communities, allowing for as much brevity as the topic warrants.

A Little History:

Ohio has offered data-center tax breaks which appear to have originated as a 2011 Senate amendment to the 2011-13 state budget under then Governor John Kasich. Unknown to the general public, however, was some fine print in the tax break agreement that could extend tax relief all the way to 2055 with a 100% exemption to any qualifying facility. There is no evidence that this part of the contract was ever publicized. Amazon, Meta and Google have all received similar exemptions based on this amendment. From various sources we have learned that in 2025 these centers cost the state \$2 billion and created a net revenue of \$1.5 billion.

As of May 27, this year, Governor Mike DeWine ordered a pause on these tax exemptions while a newly formed Joint Data Center Select Committee studies their expansion in Ohio. Several bipartisan bills have been introduced in an effort to control their growth and use of public utilities. These include House Bill 646 (a bill designed to regulate the industry), HB 706, and HB 710. However, in a disappointing dismissal the caucus broke for the summer and HB 646 was dead. That means any new legislation likely will have to wait until after the November election.

A citizen led referendum effort to amend the Ohio constitution, prohibiting the building of large-scale data centers, was initiated by the Conserve Ohio group. Sadly, it appears at this date to have failed to gather enough signatures to be included on November’s ballot.

Community:

How might these facilities impact our region? The potential for hazardous outcomes is extensive and among the first notes of caution are indeed, the roads. Like fracking operations, the building of these mega data sites creates a tremendous uptick in heavy truck traffic. With that traffic comes the burden of accelerated road damage, often the 24 hour a day drone of these vehicles and the abiding air pollution from their diesel engines

Data Centers: The Good, the Bad and the Truly Ugly

Kent Environmental Council

Other community grievances include the purchase of land by shell companies complete with non-disclosure agreements that leave locals without resources for redress. Regardless of who is behind these developments the conversation over land generates broader concern about the land itself and the nature of our rural areas. What becomes of generational farms that were once our productive agricultural neighbors? “We must recognize that farmland is a strategic resource and a vital part of our nation’s security,” Ohio Farm Bureau Foundation lobbyist Evan Calliccoat reminds us.

Energy:

As I’m sure you are all aware by now data centers have an appetite for energy unprecedented in world history. In the U.S. data centers consumed an estimated 176 terawatt-hours of electricity in 2023 alone – a number almost too large to fathom. To put this number into perspective, it would take billions of household microwaves running simultaneously to produce just one terawatt of continuous power. Much of that power is employed just to cool the operation of the center itself. And with this consumption comes the need for electrical production well beyond anything available on today’s grid and it’s this demand for power that rests at the heart of our entire environmental debate. Who will supply this power, by what means, and what havoc will it reap on our communities and our environment. One possibility is that this demand may increase the rates to residential users for their relatively modest energy needs. One article from Consumer Reports noted that residential rates jumped by over 7% in 2025 – more than double the rate of inflation. By example, the state of Virginia, home to some 600 data centers, their demand accounted for close to 40% of the state’s total electrical use. Bloomberg News found that in areas of high data center concentration electrical rates have risen 267% over the last five years.

Air, Water, Soil, Sound:

Adding to the dilemma of burning natural gas, long proven to be a contributor to carbon in our atmosphere, is that much of it is now mined by a method referred to as fracking – in itself a highly controversial process in our state. Support for this process has been encouraged by last year’s House Bill 15, which allows data centers to get quick approval for their own gas plants with no community notification and no public hearings. Here in Ohio, this demand is driving a huge increase in fracking operations, even in our fragile state parks. To learn more about this trespass on our public lands read a recently released report from saveohioparks.org.

In Piketon, Ohio developers have proposed the world’s largest natural gas plant alongside a major data center campus, with plans for small nuclear reactors in the future. As Cathy Cowan Becker of Save Ohio Parks notes, neither of these sources can be considered clean energy. While nuclear power does not burn fossil fuel it relies on the constant mining and enriching of uranium and the problematic disposal of the spent fuel. Another means of electrical production often employed by data centers is the burning of diesel fuel, the combustion of which is even worse for air quality

Data Centers: The Good, the Bad and the Truly Ugly

Kent Environmental Council

than natural gas. Diesel engines are known for emitting nitrogen oxides, particulate matter, carbon monoxide, and hydrocarbons.

On the contrary, wind and solar produce energy with a very small environmental footprint. Yet, a study from Save Ohio Parks' Rachel Kutzley finds that restrictions on wind and solar energy projects have, for the past decade, cost Ohio more than 5.3 GW of generation capacity in projects denied or withdrawn, and years of missed development as energy companies left for more favorable markets. Ohio restrictions on green energy include the nation's most draconian wind-turbine setback regulations. And so far, Ohio laws have allowed 37 counties to ban large scale wind and solar. Here in Portage County commissioners have decided to take a wait and see approach, reviewing each township's request for a ban on a case-by-case basis.

To exacerbate the offense of pollution and diminished air quality, these centers are often built in low-income or rural areas where the local population has less political clout and fewer dollars to pursue legal means to stop their construction. As an example, the NAACP, the Southern Poverty Law Center, and Earth Justice are suing Elon Musk's xAI over an unpermitted installation of natural gas-burning-turbines outside of Memphis, Tennessee.

Now let's look at what may be the most egregious abuse of all: the squandering of fresh water. No matter how else you may choose to characterize it, *water is life*, without it we do not exist, and the volume of water squandered by data centers is staggering. According to a recent Georgia University study 80% - 90% of water consumed by data centers is drawn from lakes, rivers or aquifers. Often the same sources that provide water to public systems. The same study noted that the world's largest data hub, located in Loudon County, Va., used approximately one billion gallons of water in 2023. That equates to 2.75 million gallons per day, 365 days a year. And that is just one data center.

Sweet Home Portage County:

All of us must be aware by now of the huge data center proposed in Shalersville at the intersection of the Ohio Turnpike and S.R. 44. As planned this enterprise will occupy a piece of property covering nearly 250 acres.

Depending on who you ask you'll find the water required for these operations to be wildly speculative. Recently, a member of KEC asked a Geis representative, during their open house in Shalersville, about anticipated water use. The response was 350 gallons per day. That number disagrees with their own website which claims something less than 3000 gallons per day.

The Portage County Water Sources Director recently told The Portager's, Wendy DiAlesandro, that the county could supply the water needs to the Shalersville operation "even if that need is up to 150,000 gallons a day." So, the question remains, what is the actual water demand going to be

Data Centers: The Good, the Bad and the Truly Ugly

Kent Environmental Council

when this facility reaches its build-out capacity? At the very least the potential water requirements seem to be represented by an ambiguous figure.

Again, DeAlisandro's reports a quote from the developer stating that their cooling system is of "closed loop" design. The engineering here is not new, but perhaps new to data center cooling. The concept is that the water is recirculated through a sealed system and then re-cooled. They did not immediately define what the re-cooling process is and whether that water will require purification before being discharged. Another little noted violation is that regardless of potential toxic contamination of the water, once discharged, it will be thermally modified which will have an impact on the biology of the body of water or soil into which it is discarded. Has the developer publicly addressed their plans for disposal? The county water director also noted in The Portager that while they can provide a great deal of fresh water, handling wastewater from the facility may be another story.

Keep in mind that the eventual scope of this project, over five years, will include buildings totaling 754,000 square feet – that's over 17 acres of once tillable land under roof. Another unanswered question: does the township have the capacity to handle the anticipated storm water coming from an impermeable area that large?

At last, shall we talk about noise, the often-overlooked form of pollution? The noise from a large data center is an insidious intrusion on its surroundings – one that reverberates 24 hours a day, 365 days a year. This imposition into the community, whether it's zoned industrial or bounded by residential development, is difficult to regulate. For starters, most communities don't have ordinances in place designed to control this type of droning hum. Making noise management even more difficult is that centers already in operation are often grandfathered against any new regulations that municipalities try to impose. According to acoustician Les Blomberg of Noise Pollution Clearing House just one of these tech centers may produce a noise level of 50 decibels. As a data campus grows each new tech facility operating at that level adds another 3 decibels to the problem. Imagine then, when the Shalersville project is built out with its proposed fourteen tech facilities, the level of noise it may eventually produce. Simple math indicates a potential ominous, and continuous thrum approaching 90 decibels. Sound walls alone, Blomberg warns, are only effective within a short range of the wall itself. The worst of this intrusion can be from low frequency noise which we can feel as well as hear, disturbing our sleep patterns, animal migration. Additionally, a recent study from the University of Michigan shows that noise created by humans, also interferes with bird communication, vital for their mating and defense. Noise simply put, is another pollution insult affecting the health of the local populace and wildlife. The New York Times agrees: "...it feels like the vibrating, rhythmic pulse of a subwoofer from a party that will never end...even up to a mile away." Day and night. Day and night.

Data Centers: The Good, the Bad and the Truly Ugly

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Action:

The question becomes “What can I do, I am but one person?” The answer the Kent Environmental Council proposes is that each of us can do a lot. And as a community we can do even more to protect our environment. There are groups of citizens growing everywhere in resistance to the power brokers whose only goal is to gain more power, more money and more control. Most often they have little or no concern for the health of our planet or its citizenry. Who, after all, are these serving? Certainly, it can be said that as a people we all benefit from the use of AI driven technology at home as well as at work, but left unchecked it can become dystopian in nature, disturbing our homes and our lives in ways only a few years ago we could not have fathomed.

In April, CBS Sunday Morning News advised us that the total investment in data center development could reach 7 trillion dollars by 2030. The great preponderance of these centers are being financed by the likes of Google, Meta, Microsoft and Amazon. The facility in Shalersville, if approved, will be owned by Bitdeer, a foreign national company based in Singapore.

What can I do?

A nod to Save Ohio Parks for many of the action prompts below.

- Call and email your state Senators and Representatives. Be insistent, and persistent in your demand for regulation.
 - Make the suspension of state sales tax exemptions permanent.
 - Demand a moratorium on data center approval.
 - Tell all of your state and local leaders to prohibit the use of non-disclosure agreements in all of these facility and real estate transactions.
 - Insist that data centers meet or offset their energy demands with solar, wind and battery storage.
 - Find yours here: www.legislature.ohio.go/members/districts-maps
 - Submit testimony to your Senators regarding pending legislation – either written or in person.
- Equally important is reaching out to all of your local city, township and county representatives.
 - Remind them of who they are supposed to serve and make them understand that they will be held accountable for public injury in their districts.
 - Encourage them to approve reasonable solar and wind projects, a power supply that can protect us from outages, shortfalls, and cost spikes and does not contribute to pollution.

Data Centers: The Good, the Bad and the Truly Ugly

Kent Environmental Council

- Then ask yourself and your neighbors, would any of these tech billionaires allow a data center in their neighborhood?
- Join your neighbors in environmental education and resistance:
 - Kent Environmental Council
 - Conserve Ohio
 - Noise Pollution Clearing House
 - Halt the Harm Network
 - Innovation Ohio
 - Ohio Environmental Council
 - Portage Responsible Development
 - Search YouTube where you'll find many audio examples of the noise pollution emitted by tech facilities.
- And finally, make an effort to reduce your own AI use. We know that it is almost impossible to avoid – we will confess to having used it here. But keep in mind as you scroll that according to the University of Georgia study cited earlier, each AI query is estimated to use 16 oz. of fresh water. KEC is not in the habit of reacting as Chicken Little, but we do find it in our mission to broadcast an alert when warranted to help protect our planet for future generations.