

Data Centers — The Facts

One page to print and take to a meeting. Every fact has its source.

You don't have to be an expert to speak at a meeting. Pick one or two facts that matter to your family, say where they come from, and make one clear request.

What is a data center?

A building, or group of buildings, full of computers called servers. A "hyperscale" one is giant — often several buildings on hundreds of acres. The computers run day and night, all year, and almost all the electricity they use turns into heat. Getting rid of that heat takes big fans, cooling towers, and often a lot of water.

It is not a warehouse. It brings very few long-term jobs, because computers don't need many people to run them.

Electricity

- Data centers used about 4.4% of all U.S. electricity in 2023. The Department of Energy expects 6.7% to 12% by 2028.
- When a data center needs more power than the grid can give, the company may want its own power plant, often a gas plant.
- New power plants and power lines are usually paid for through everyone's electric rates. ASK WHO PAYS.

Source: U.S. Department of Energy, 2024

Water

- A large data center can use up to 5 million gallons a day — as much as a town of 10,000 to 50,000.
- About 80% of that water evaporates. It does not go back into the ground or the river.
- ASK: Where will the water come from? How much, every day? Will they report it publicly? What happens to our wells?

Source: Environmental and Energy Study Institute

Heat, corn and warm nights

- Corn needs cool nights. Hot nights in the 70s and 80s make the plant burn up the sugar it made during the day, so less goes into the kernels.
- Corn grown with nights in the mid-60s out-yielded corn grown with nights in the mid-80s.
- ASK: Has anyone studied what this does to night temperatures on the farms around it?

Source: Ohio State University Extension, "Warm Nights May Impact Corn Yield"

Cattle and bulls

- A bull must keep his testicles about 7 to 11 degrees Fahrenheit cooler than his body to make healthy sperm.
- After 8 hours or more of heat, sperm don't swim as well, and fewer cows get pregnant and stay pregnant.
- The damage shows up late — 2 to 4 weeks after a heat spell, and 6 to 12 weeks of cooler weather to recover.

- Cool nights are when a bull recovers. If the nights near a data center never cool off, he never gets that chance.
- ASK for a livestock baseline study before anything is built, and yearly checks after.

Source: University of Wisconsin Extension, Bull Reproductive Health Fact Sheet

Noise and vibration

- Thousands of cooling fans and big transformers make a low, steady hum, day and night. Low sounds travel farther and pass through walls more easily than high sounds.
- People who live near data centers often say they feel it more than hear it.
- ASK for noise limits that include low-frequency hum, vibration limits, and monitoring the public can see.

Source: Report on data center noise in Loudoun County, Virginia

EMF — electric and magnetic fields

- Every wire carrying power makes a magnetic field. Fields are measured in milligauss (mG). Most homes average under 1 mG, and fields drop off fast with distance.
- Two large pooled studies found about twice the childhood leukemia risk in children whose homes averaged 4 mG or more, and about 1.7 times above 3 mG.
- The World Health Organization's cancer agency rates power-line magnetic fields as "possibly carcinogenic to humans" (Group 2B, 2002).
- BE HONEST: these studies show a link, not proof of cause. That is exactly why strict limits are worth asking for. Babies, children and pregnant women are the ones to protect first.
- ASK: no more than 1.0 mG added at any property line, home or school above a baseline measured before construction.

Sources: Ahlbom et al., British Journal of Cancer, 2000 • Greenland et al., Epidemiology, 2000 • IARC Monograph 80 (2002)

A gas power plant and the air

- Gas plants give off nitrogen oxides (NOx), which irritate the lungs and make asthma worse. Children and older people are at greater risk.
- NOx also helps form smog and fine soot.
- ASK: How far is the plant from the nearest school? Will the air be monitored, and will the public see the numbers?

Source: U.S. EPA, Basic Information about NO2

Taxes and jobs

- Many states now offer data centers long tax exemptions. Kansas Senate Bill 98 (2025) gives qualifying data centers a sales tax exemption for 20 years, in return for \$250 million invested and at least 20 new jobs. CHECK WHAT YOUR STATE OFFERS.
- Twenty jobs. Ask how many will go to people who live in your county.
- Land and buildings owned by the federal government don't pay local property tax. If the data center is being built for the government, ask in writing who will own it and whether the county's tax numbers still hold up.
- ASK WHO THE END USER IS, in writing, before any vote.

*From the free toolkit at immunocure.org/toolkit — companion to *The Battle for Tonganoxie* by L J Steele.*