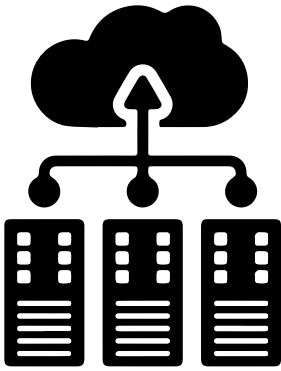


Data Centers — A threat to Minnesota's water



*Data centers are popping up across the country as the dependency on cloud computing and Artificial Intelligence increases. These centers require millions of gallons of water and huge amounts of electricity each year to cool the facility and run efficiently. This can cause stress in areas experiencing water scarcity and water quality concerns. **Minnesota is currently home to 61 data centers.***

Minnesota must demand that:

- Multi-billion-dollar businesses pay their fair share in taxes. This means paying local and state taxes as well as a tax on every gallon of potable water used.
- Centers use the safest, most environmentally friendly options when cooling and descaling the facility. Centers must provide a report to the legislature annually that they are using the safest, most up-to-date technology.
- Any data center operating in Minnesota must report their water usage to the legislature and publicly on their website annually.
- Centers construct their own carbon-free power generation facilities onsite to power their electricity and cooling demands.
- Require data centers to reuse and recycle all water in their cooling systems. The state should be compensated per gallon of potable water used to run and maintain data centers.



Data Center in Ashburn, Virginia.

Data Center Facts:

- Data centers rely on water-intensive cooling systems that consume millions of gallons of drinking water each year. A single data center can consume up to 5 million gallons of water per day.¹
- Data centers are increasing their need for fresh water over time — Microsoft’s water consumption increased by 34% between 2021 and 2022². Google’s water consumption went up nearly 22% over the same period to 5.56 billion gallons per year.⁵
- The water used in data centers is often treated with chemicals to prevent corrosion and bacterial growth, rendering it unsuitable for human consumption or agricultural use. This means that not only are data centers consuming large quantities of drinking water, but they are also effectively removing it from the water cycle.³
- Data centers operate 24/7/365 — and there are an estimated 5,300 facilities in the United States. This adds up to hundreds of billions of gallons of water used each year.⁴
- One AI query is estimated to use 16 ounces of fresh water.⁵ ChatGPT estimates upwards of 10 million queries per day.



Data Centers and PFAS — a dangerous combination

Data centers use a variety of chemicals in their cooling system, chemicals that contaminate water as it works through the data center cooling system:

- **Refrigerants:** Fluorinated gases (F-gases), specifically hydrofluoroolefins (HFOs) and hydrochlorofluoroolefins (HCFOs) — which are types of PFAS
- **Cooling loop chemicals:** Ethylene Glycol — a clear, odorless, flammable, and toxic liquid that is used in antifreeze and other products
- **Water treatment chemicals:** Corrosion inhibitors such as nitrites, molybdates, borates, azoles (for protecting yellow metals), phosphates, and polymers are commonly used, descalers, and hydrogen peroxide (the most environmentally friendly option).

Minnesotans shouldn’t be left on the hook for multi-billion-dollar companies seeking tax breaks to run facilities that not only monopolize but also poison our water.

Company	Annual Profits	Annual Revenue	Water used in Data Centers (most recent reporting)
Google	\$30.7 billion	\$350 billion ⁶	5.6 billion gallons
Microsoft	\$88.14 billion	\$261 billion ⁷	33 million gallons
Meta	\$62.36 billion	\$164 billion ⁸	5.8 million gallons
Equinix	\$4.281 billion	\$8.7 billion ⁹	1.5 million gallons

1 <https://utulsa.edu/news/data-centers-draining-resources-in-water-stressed-communities/#:~:text=Unfortunately%2C%20many%20data%20centers%20rely,thousands%20of%20households%20or%20farms.>

2 ibid

3 ibid

4 <https://www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/issues/magazine-issue/article/2024/03/engineers-often-need-a-lot-of-water-to-keep-data-centers-cool>

5 <https://www.watertechnologies.com/blog/artificial-intelligence-using-ton-water-heres-how-be-more-resourceful#:~:text=The%20technology%20is%20constantly%20evolving,that%20house%20these%20AI%20systems.>

6 <https://companiesmarketcap.com/alphabet-google/revenue/>

7 <https://www.statista.com/statistics/267808/net-income-of-microsoft-since-2002/>

8 <https://www.statista.com/statistics/277229/facebooks-annual-revenue-and-net-income/#:~:text=Meta%3A%20annual%20revenue%20and%20net%20income%202007%2D2024&text=In%202024%2C%20Meta%20Platforms%20generated,to%20114%20billion%20U.S.%20dollars.>

9 <https://investor.equinix.com/news-events/press-releases/detail/1063/equinix-reports-strong-fourth-quarter-and-full-year-2024>

FOR MORE INFORMATION:

Avonna Starck, Minnesota State Director, Clean Water Action and Clean Water Fund, AStarck@cleanwater.org or 612.423.6939
125 SE Main Street, Suite 135, Minneapolis, MN 55415 • Tel: (612) 623-3666 • www.cleanwateraction.org/mn