

## Data Centers & The Cost to Our Community

Bringing community awareness to what a Data Center is and what this means for the future of our communities.

### What is a Data Center?

A data center is a specialized facility designed to house and manage an organization's IT infrastructure, including servers, storage systems, networking equipment, and other hardware essential for processing, storing, and distributing vast amounts of data, aka a warehouse full of computers. These facilities serve as the backbone of modern digital services, enabling everything from cloud computing and online transactions to streaming platforms and artificial intelligence (AI) applications. Data center designs incorporate advanced cooling systems, backup power, and in-house cybersecurity measures to ensure efficiency, reliability, and security. As data centers continue to grow in scale and complexity, their energy use and environmental footprint are also expanding.

### Where to find local resources in Spartanburg?

Join our Facebook Groups:

- No Data Centers in Spartanburg
- Power Grid Spartanburg
- Sign our Petition (QR code provided)

All local County Council Meeting Dates are updated on both groups.

## Community Concerns:

**Increased Utility Rates:** Data centers increase local electric utility rates by driving up overall energy demand, which can strain grid capacity and force utilities to invest in costly infrastructure upgrades. These costs are passed on to residents through higher rates. Data centers have also secured long-term power agreements, which reduce the available supply and push prices up for other consumers.

**High Resource Consumption:** A single data center can consume up to 2 megawatt hours of power—equivalent to the power used by 2,000 homes—and millions of gallons of water annually for cooling, straining local resources and infrastructure.

**Ineffective Tax Incentives:** Tax breaks for data centers do not deliver the promised economic benefits, such as high-paying jobs, and they reduce local tax revenues, while shifting financial burdens onto communities and schools.

**Climate and Energy Challenges:** Data centers' massive energy demands are prolonging the operation of fossil fuel plants and undermining state renewable energy goal. While advanced cooling methods like liquid immersion and direct-to-chip cooling offer energy efficiency improvements, current technologies force a tradeoff between energy and water efficiency, limiting sustainable solutions.

**Policy Solutions:** To mitigate data centers' environmental impacts and align their growth with sustainability goals.

### Take Action:



<https://c.org/TBkMb8gQVt>

## Data Centers: The Big Picture

### How much water and electricity do data centers use?

U.S. data centers consumed 183 terawatt-hours (TWh) of electricity in 2024, according to IEA estimates. That works out to more than 4% of the country's total electricity consumption last year – and is roughly equivalent to the annual electricity demand of the entire nation of Pakistan. By 2030, this figure is projected to grow by 133% to 426 TWh.

Most facilities use over 10 million gallons (38 million liters) of water per year. Google's Council Bluffs data center in Iowa uses around 980 million gallons (3709 million liters) of water per year, which is equivalent to the annual water usage of over 4 million homes.

### Fact Vs. Fiction: Data Center Myths:

#### Can Data Centers bring up my electric bill?

As demand surges, utility companies often pass the costs of infrastructure upgrades and increased energy procurement onto residents and small businesses through higher rates. Companies and legislatures also withhold information about the electricity and water use of data centers, preventing consumers from realizing that increased utility costs are often associated with the arrival of energy-intensive facilities. By keeping usage data confidential or vaguely reported, corporations and policymakers avoid public scrutiny, even as these facilities strain local resources.

**Closed-Loop Water Systems:** While these systems do save from 50-70% of water, the harm caused by corrosion is well known. Metal wastage will cause leaks, and generate high levels of metal oxides that lead to deposition and fouling leading to system repairs and replacement expenses.

In closed loops, corrosion is a greater concern since the corrosion products continually build up since there is no blowdown. Particulates generated by corrosion can lead to deposition which can further exacerbate corrosion. If one of these systems breaks it can cause a massive pollution event.

#### The Promise of Local Jobs:

Data centers offer far fewer jobs than other sectors, since they require very few workers to operate them. Construction can initially bring in temporary jobs, including workers from out of the region. This may cause a brief boom in employment, but once data centers are constructed, they can operate with as few as 18 permanent jobs.