Chicago Wilderness Alliance

Café

Data Centers and the Future of the Chicago Wilderness Region: Why the Conservation Community Needs to Engage on the POWER Act

Thursday, July 16, 12-2pm CST

Illinois is in the middle of a massive data center boom, and it's already starting to affect the Chicago Wilderness region. We're seeing rising electricity demand, more reliance on polluting backup generators, and growing pressure on local water supplies, with environmental justice communities often bearing the brunt of it. This Cafe will dig into what this trend means for our region and what's being done about it. Andrew Rehn from Prairie Rivers Network will walk us through how fast data centers are growing in Illinois, what that could mean for our ecosystems, water, and air quality, and introduce the POWER Act (SB4016/HB5513), which would require data centers to bring their own clean energy, protect ratepayers, improve water reporting and efficiency, and add new protections for vulnerable communities. Learn more about how the conservation community can come together and advocate on this issue.

Presenters:
Andrew Rehn, Climate Policy Director, Prairie Rivers Network
Tarik Shahzad, Government Relations Associate, The Nature Conservancy in IL

Agenda

This event is a mix of Presentations and Breakout Groups

1. Introduction
2. Data Center Lay of the Land
    - Welcome Breakout
3. Impacts of Data Centers
    - Impact Breakout
4. Solutions
    - Solutions Breakout
5. Next Steps

INTRODUCTION

What is the Illinois Clean Jobs Coalition?

Coalition of environmental, consumer advocacy, and faith based groups, focusing on climate advocacy.

Listening & education session on data centers

- Inform Policy & Advocacy

LAY OF THE LAND

What's a Data Center?

A data center is a warehouse full of computers or servers. Data centers provide **computing power** to store data, run the internet, or create A.I. models.

Inputs:

- **Computer chips** to do the computing.
- **Energy** to power the computer chips, and often for cooling too.
- **Water** for cooling. Often from a community water supply, sometimes directly from the environment.
- **Land.** 100s of acres for the big ones.

LAY OF THE LAND

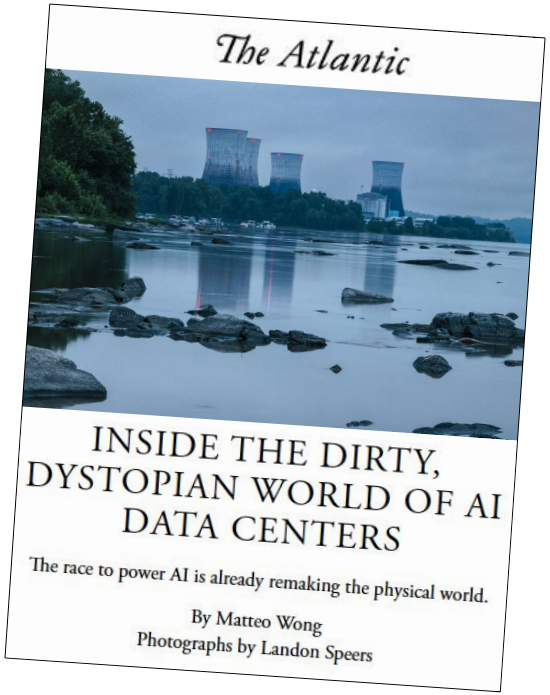
Why now?

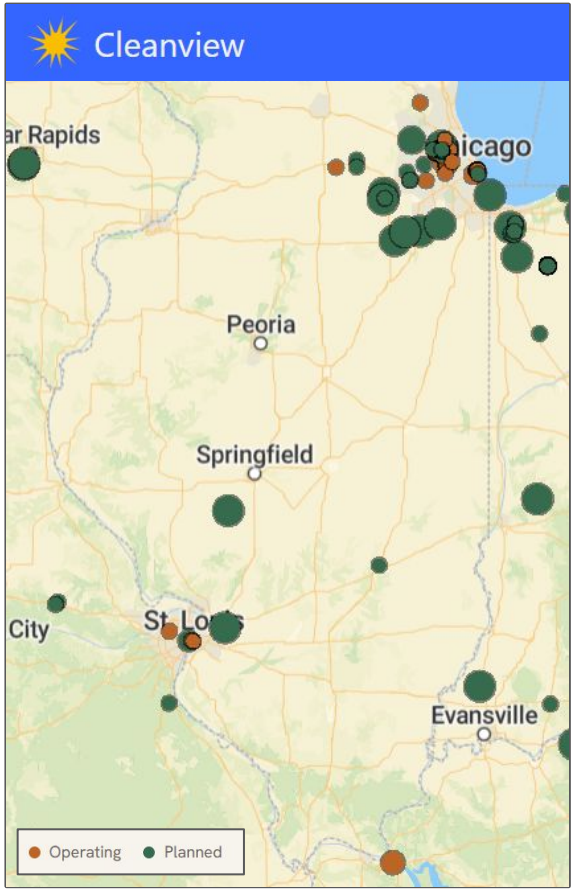
Generative AI created industry demand for more computational power than ever before.

- “Training”/creating AI models a lot of computational power.
- Using AI models requires a lot too.

“Hyperscalers” are the biggest data centers (no official definition).

Illinois is looking at a 10x increase in data centers, measured by energy demand.



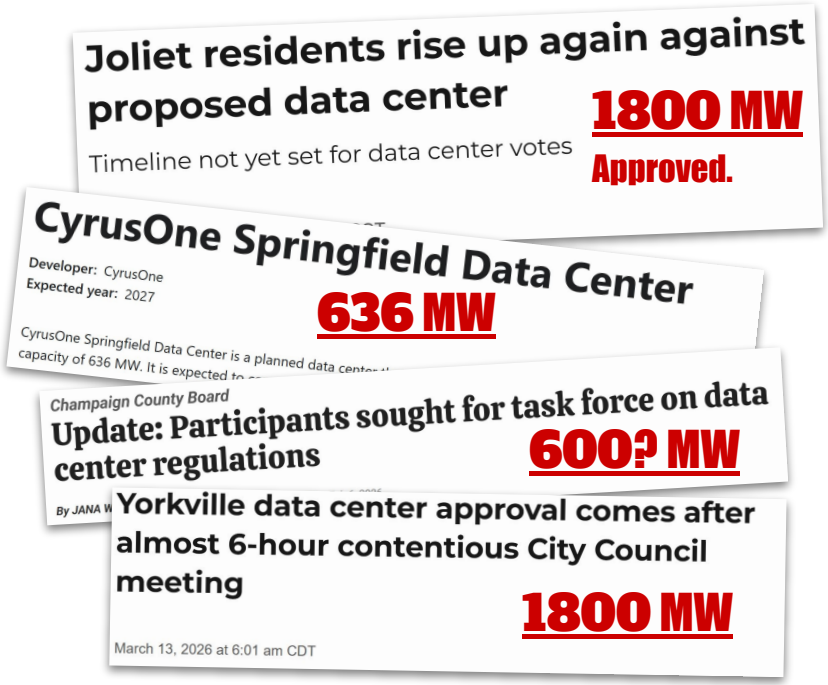


LAY OF THE LAND

Data Center Locations

Depends on definition of “data center”!

Other maps show more data centers, including smaller centers



1 MW = 1000 Homes
1800 MW = 1,800,000 Homes

LAY OF THE LAND

Data Centers at Unprecedented Scale

Data Center size is measured in their **energy consumption** (megawatts).

The typical household uses 1 kW of energy.

"The **largest operating data center** in Illinois is Northlake Chicago CH1 as of March 2026. The facility is located in Cook, IL and has a capacity of **158 MW**."

https://cleanview.co/public/data-centers/illinois

Joliet residents rise up again against proposed data center

Timeline not yet set for data center votes

1800 MW

Approved.

December 20, 2025 at 8:10 am CST

LAY OF THE LAND

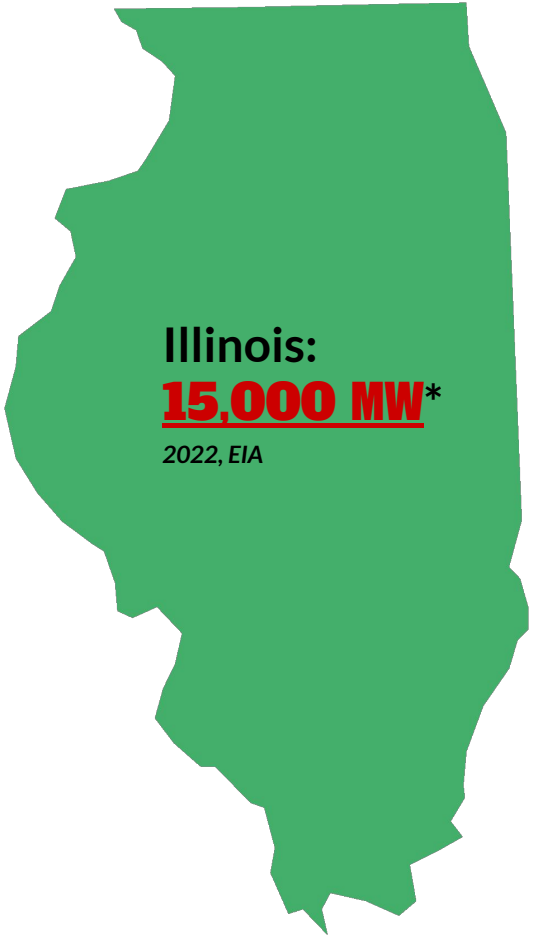
Data Centers at Unprecedented Scale

Chicago uses:

~3500 MW*

Residential + Industrial, estimate

1 Data Center > 50% of Chicago



LAY OF THE LAND

Data Centers at Unprecedented Scale

Over **4500 MW** of data centers were approved in Illinois since 2026.

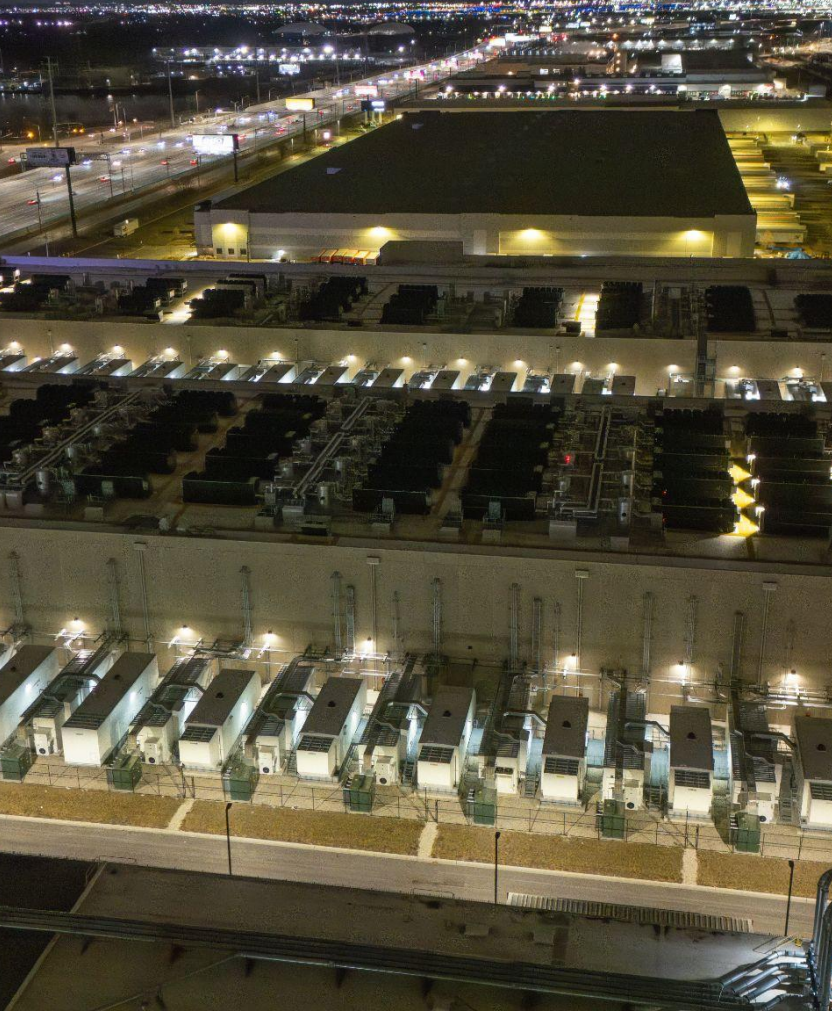
~ 1/3 of Illinois's 2022 Use

LAY OF THE LAND

Data Centers at Unprecedented Scale

What's it take to make that much energy?

Prairie State Generating Station, Illinois's largest coal plant and largest source of air pollution, generates **1600 MW**. That doesn't even cover the data center demand in Joliet (1800 MW).



What are the Impacts of Data Centers?

- Water Use
- Energy & Energy Affordability
- Noise & Air Pollution
- Land Use Impacts
- Decommissioning
- Jobs

Water Sources & Discharges

Where do data centers get their water?

- Community Water Supply / Drinking Water Supply
- Surface Water or Groundwater
- Wastewater Reuse

Where does the water go?

- Wastewater Treatment Plant
- Discharges to Surface Waters

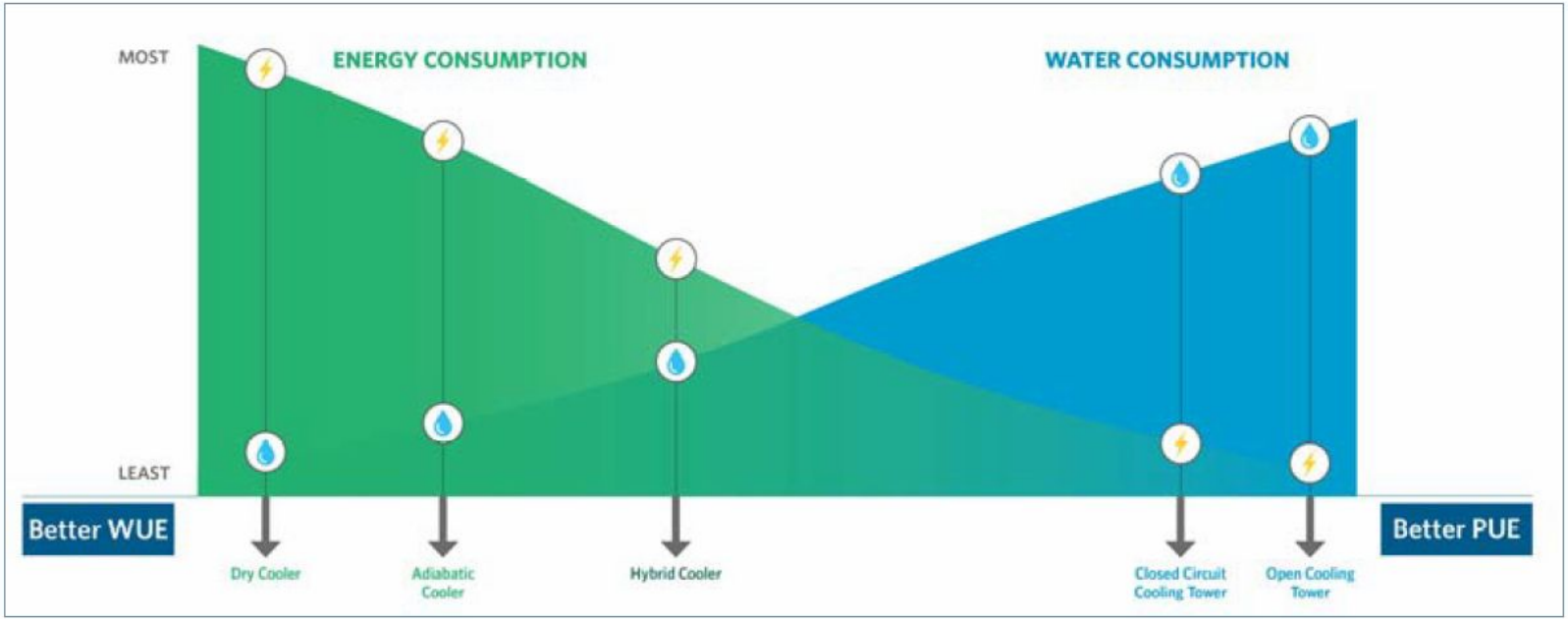
Water Use

Data centers use a lot of water:

- **On-site,** particularly if they use evaporative cooling
  - Larger data centers can each “drink” up to **5 million gallons per day**, equivalent to a town of 10,000 to 50,000 people.
- **Off-site,** particularly if they are powered by fossil fuels (which are water cooled):
  - Coal, gas, nuclear are among the largest water users in Illinois.

DATA CENTER IMPACTS

Cooling Technology Drives Onsite Water Use



"Air cooled"
"Closed loop"

"Water cooled"
"Open loop"

Water Environment Federation
the water quality people

COOLING TECHNOLOGY TRADEOFFS

Category	System Type	Cooling Capacity	Water Efficiency	Energy Efficiency
Mechanical Refrigeration (Facility-Scale)	Direct Expansion System	Lowest	Highest	Lowest
	Air-Cooled Chiller	Low	Highest	Lowest
Evaporative (Facility-Scale)	Water-Cooled Chiller (Includes Cooling Towers)	Medium	Lowest	Low
	Adiabatic Cooling Assistance	Medium	High	High
	Spray-Assisted Cooling	Medium	Medium	High
Free Cooling / Airside and Waterside Economization (Facility-Scale)	Dry Cooler	Medium	Highest	Medium
	Airside Economizer (Heat Pump)	Medium	Highest	Medium
	Waterside Economizer (Heat Pump)	Medium	Low	High

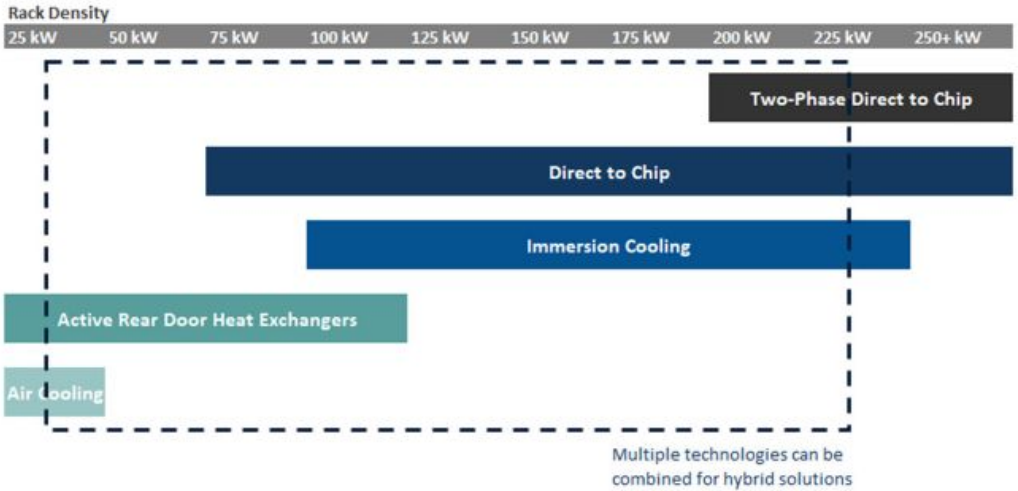
Note: Higher efficiency doesn't always result in lower usage

Facility-Scale Cooling Technologies
- Lower cooling capacities
- Higher water efficiencies
- Lower energy efficiencies

Component-Scale Cooling Technologies
- Higher cooling capacities
- Lower water efficiencies
- Higher energy efficiencies

Category	System Type	Cooling Capacity	Water Efficiency	Energy Efficiency
Liquid (Component-Scale)	Liquid Cooling, Rear-Door Heat Exchangers	High	Medium	Highest
	Liquid Cooling, Immersion	Highest	Medium	Highest
	Liquid Cooling, Direct-to-Chip Cooling	Highest	High	Highest

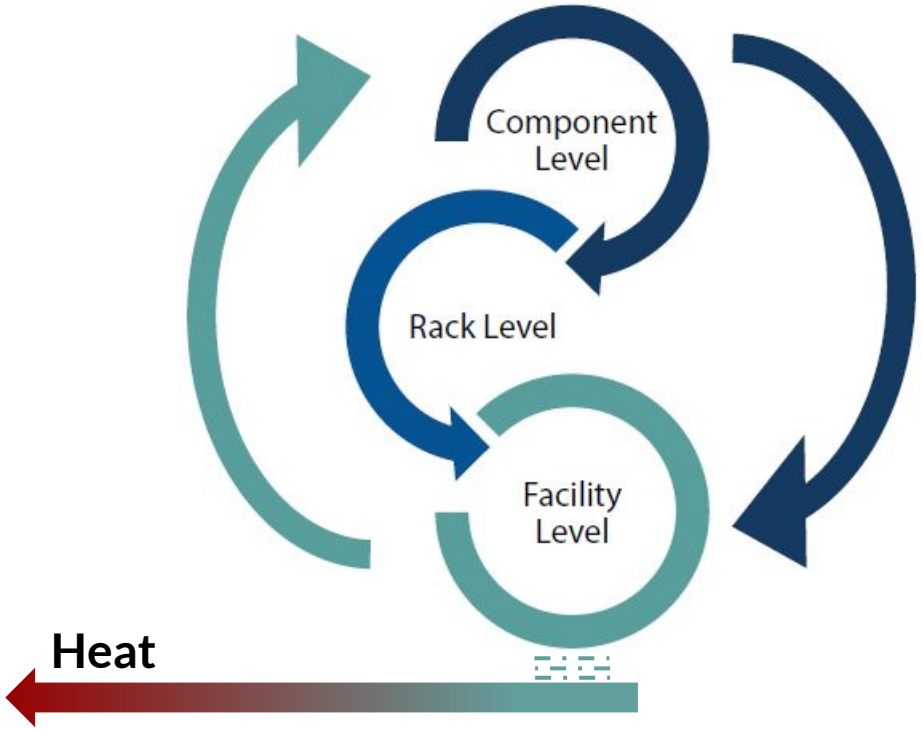
CLIMATE AND COMPUTING CAPACITY: KEY DRIVERS OF COOLING NEEDS



- Higher rack density requires more cooling capacity
- Liquid cooling technologies have higher cooling capacity

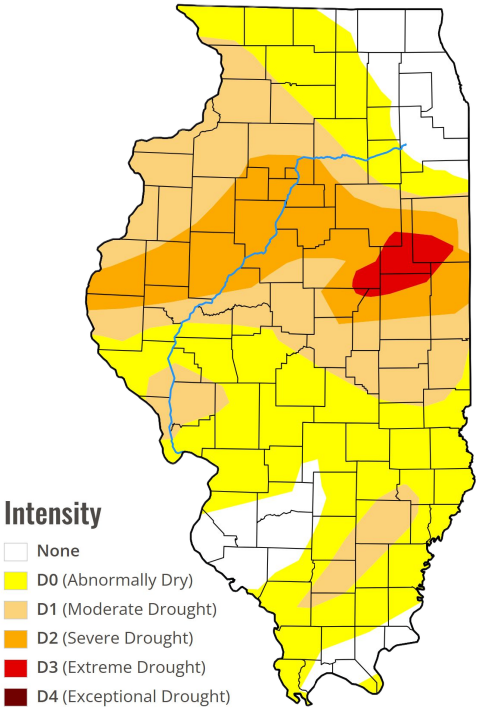
Sources: 2025 JLL Data Center Outlook Report, 2025; Devin Pellicone, "AI Rack Cooling: Applying Directed Energy Thermal Strategies to High-Density Data Centers (50 KW - 1 MW+)," Advanced Cooling Technologies, 2026, https://www.1-act.com/resources/blog/ai-rack-cooling-data-centers/?srsltid=AfmBOoole-w1xtc6DS0vM7bL5vsNMc89TW55Y2qxndcxR0-fs4xCfhRb.

COOLING TECHNOLOGIES WORK TOGETHER



DATA CENTER IMPACTS

Illinois's Water is Vulnerable



Construction begins on Chicago project to send Lake Michigan water to southwest suburbs

By Nate Rodgers and Alex Ortiz | Published June 2, 2025 6:41am CDT | News | FOX 32 Chicago |

MOULTRIE COUNTY

Sullivan declares water emergency amid Central Illinois drought

Water stress is coming to Illinois.

Illinois lacks modern water law.

Water monitoring is not enforced.

DATA CENTER IMPACTS

Energy Affordability - Data Centers Drive Cost

Data Centers Are Already Increasing Your Energy Bills. We Have the Receipts.

September 29, 2025 | 8:00 am

IULIIA BURMISTROVA/GETTY IMAGES

Mike Jacobs
Senior Energy Analyst

Data Centers are significant drivers of the energy affordability crisis due to costs currently being socialized by consumers:

Transmission & Distribution

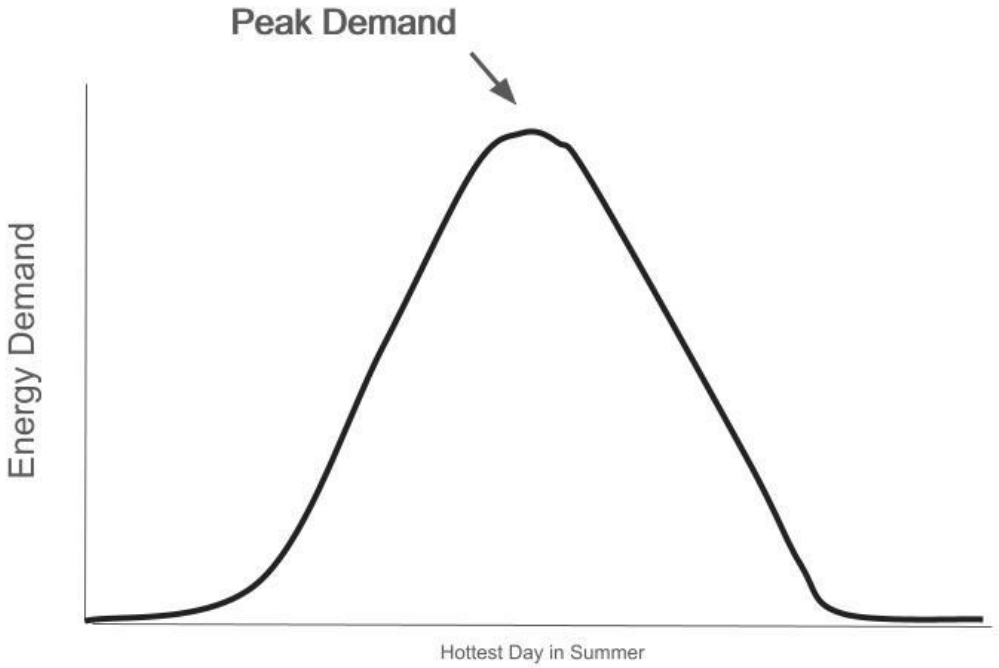
- Transmission = Overhead power lines connecting power plants to the grid.
- Distribution = Utility-owned equipment connecting consumers to the grid.
- We all pay portion of costs to build T&D infrastructure that serves data centers.

Capacity

- Contracts generators to be available in the year's highest-demand hours.
- More peak demand = more costs
- Socialized across the grid

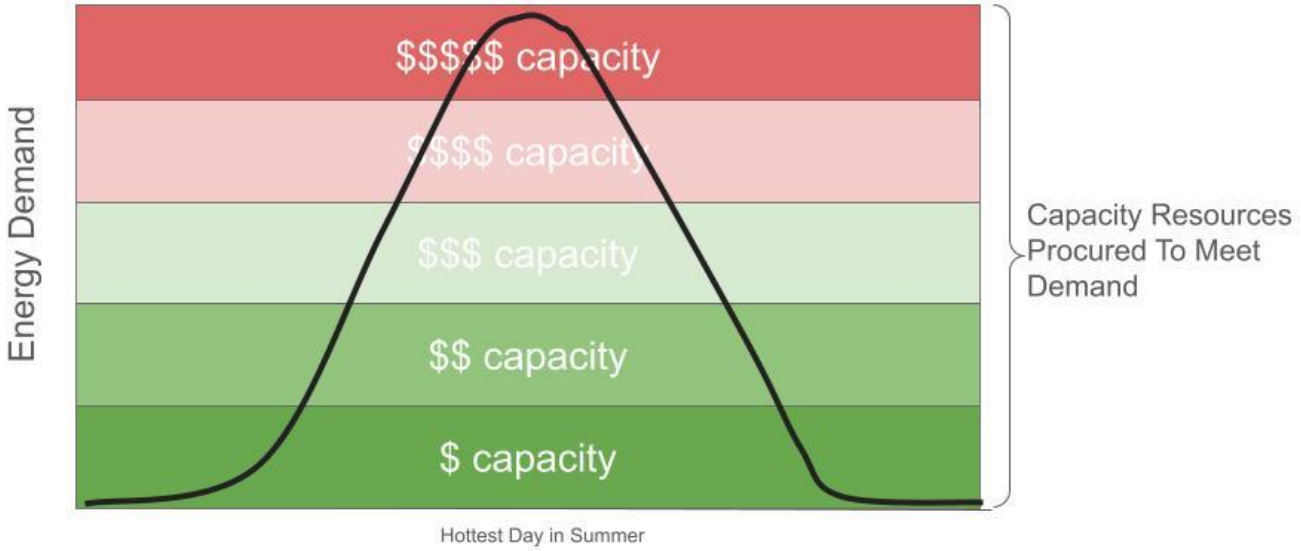
DATA CENTER IMPACTS

How Data Center Energy Use Drives Capacity



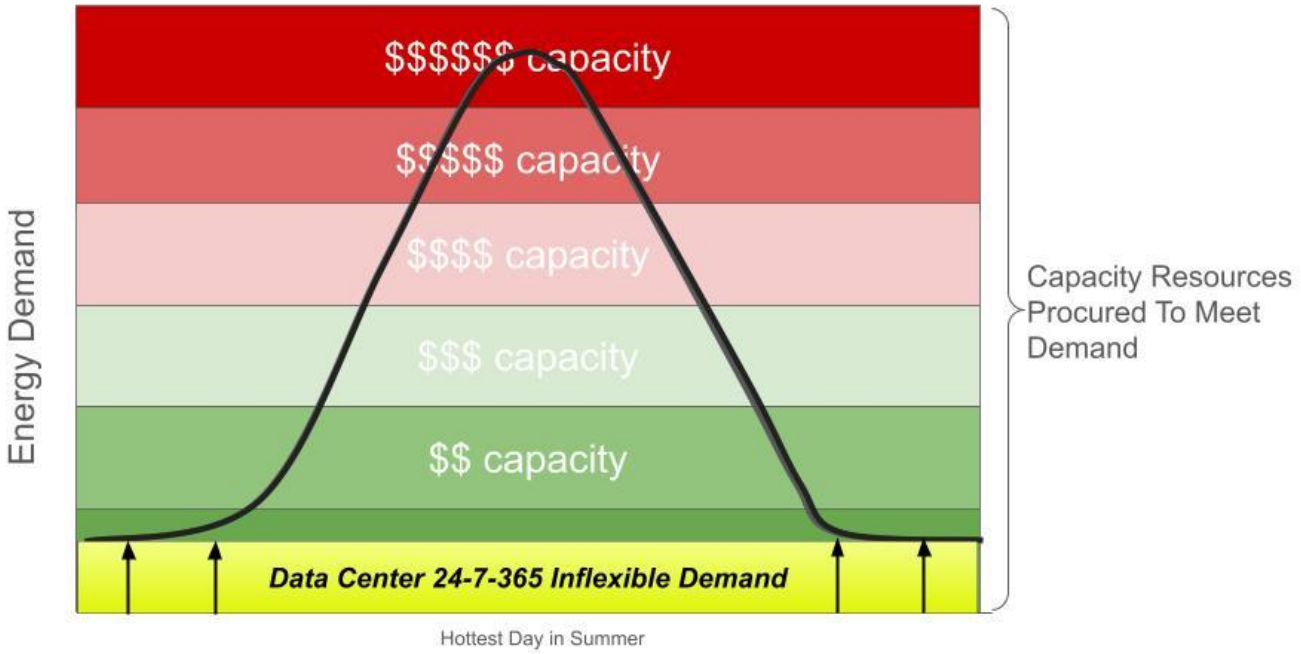
DATA CENTER IMPACTS

How Data Center Energy Use Drives Capacity

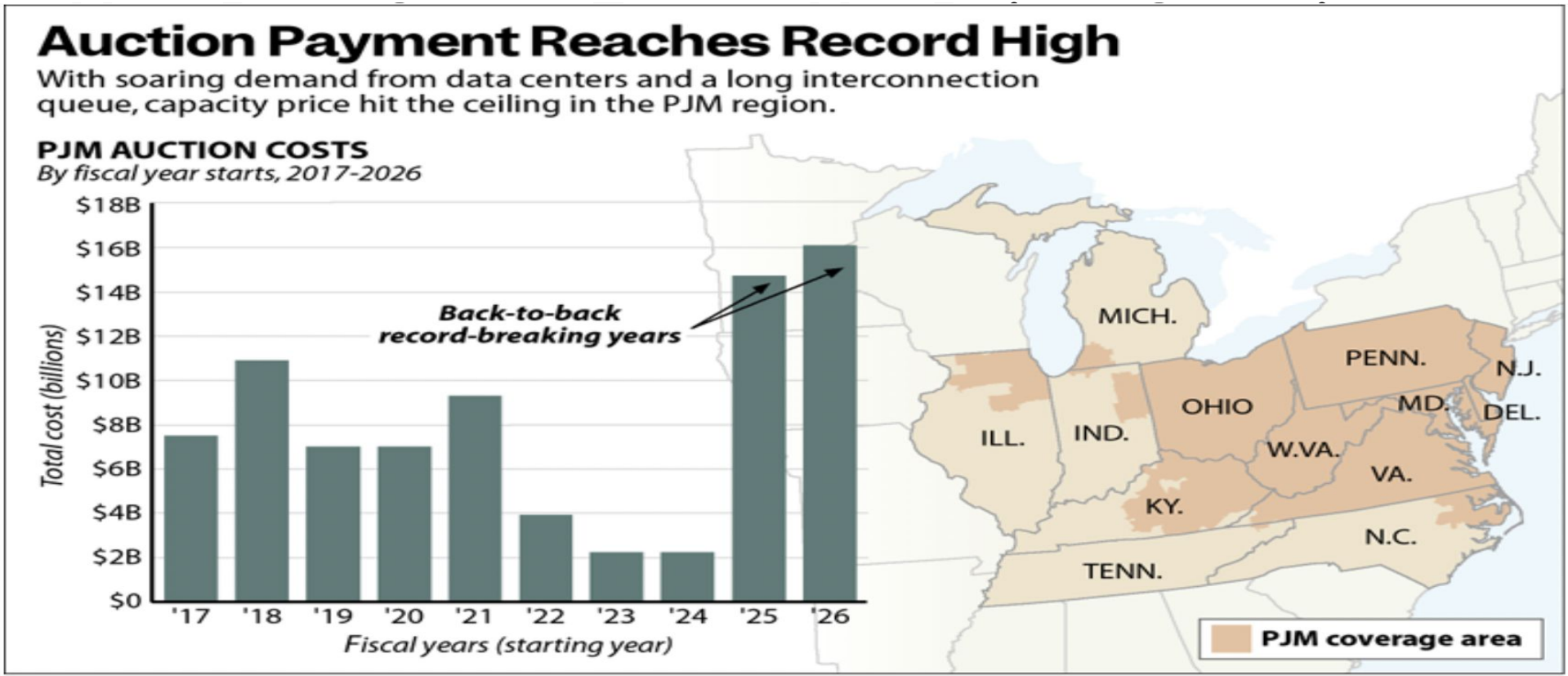


DATA CENTER IMPACTS

How Data Center Energy Use Drives Capacity



DATA CENTER IMPACTS



(Graphic by Rambo Talabong/Inside Climate News)

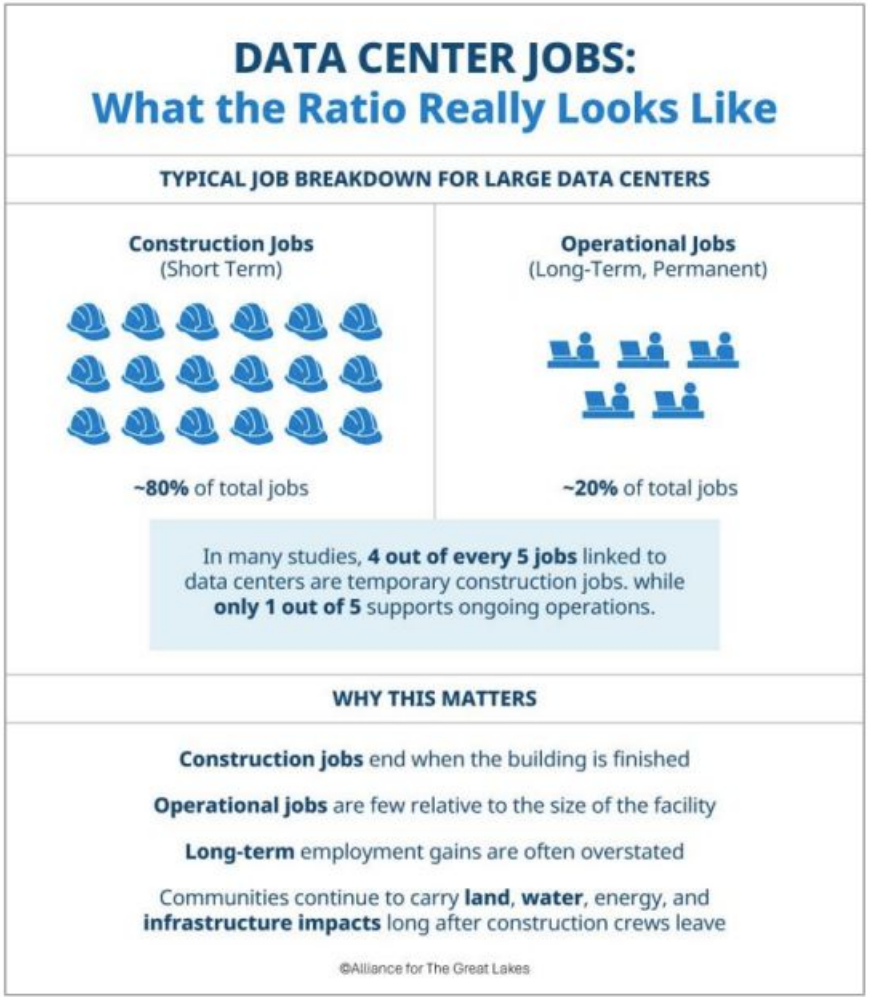
Decommissioning & Stranded Assets

Decommissioning is a huge question.

AI bubble may pop & AI may “hit a wall”

AI is a race & data centers are the training workhorses. What happens to the loser’s data centers?

What will happen to these facilities? Who owns them?



Jobs

Majority of data center are construction jobs (ie. temporary by their nature)

- Can we ensure local?

DATA CENTER IMPACTS

Air Pollution in EJ Burdened Communities

Example: Elon Musk's Colossus DC in Memphis

Built near Boxtown - a Black neighborhood with state's highest asthma rate

Nitrogen Dioxide, produced by methane combustion, is proven to trigger asthma

Colossus powered by Gas Turbines - Permitted for 15. Now operating 35

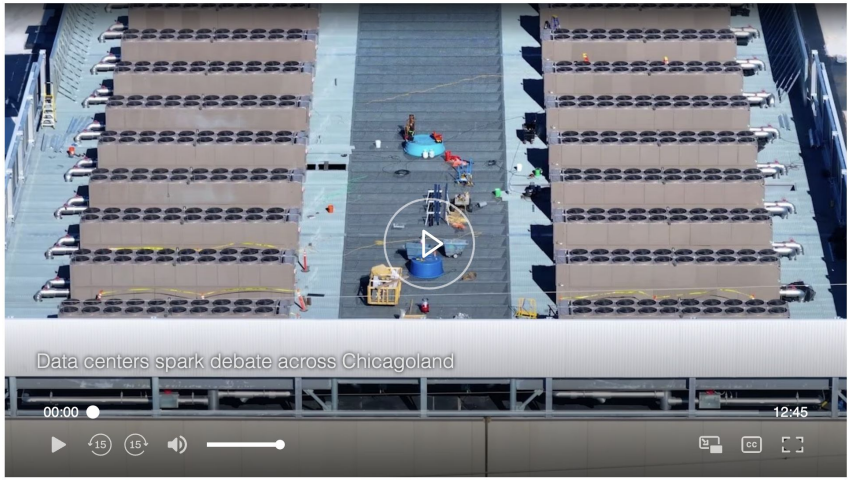
Nitrogen Dioxide has increased by 9% since the plant became operational.

DATA CENTER IMPACTS

Noise Pollution

Data centers spark debate across Chicagoland: 'It was like there was a helicopter on our roof'

By Bret Buganski | Published March 2, 2026 10:26am CST | Special Reports | FOX 32 Chicago |



Data centers spark debate across Chicagoland

Noise Pollution cont.

- Noise mechanically originates:
  - Cooling systems, generators, operating infrastructure
  - Rumbling, Whirring, Humming
  - Higher Frequency and Lower Frequency
    - Higher can be muffled and suppressed more easily
    - Lower must be addressed at source

- Impacts to Wildlife - Research is behind the curve
  - Habitat abandonment
  - Worsening or inability to communicate
  - Reduced breeding capabilities and success rates

Light Pollution

- Brightly lit like stadiums, small-scale airports (e.g. “sky glow”)

- Purposes of lighting
  - Surveillance
    - Expensive infrastructure, all-night perimeter lighting
  - Service roads, lots
    - Technical staff and security can operate at any time
  - Construction
  - Internal Operations
    - Lowest impact, typically doesn’t affect stakeholders

DATA CENTER IMPACTS

Facility Size / Land Use

Using vs. Losing
Prime Farmland

Solar Projects vs. Data Centers

The biggest loss was the nutrient-rich top soil, which his family had maintained with careful crop rotation. "They brought in an excavator and ripped it all out in a day," he said, as if speaking of a lost heirloom. **"Six to ten feet of it of it, all in one day."**

- Stephen Witt, "Inside the Data Centers that Train A.I. . . . ",*The New Yorker*, Oct. 27, 2025

Solutions to Data Centers

- The need for action at all levels
- County-level policy
- State-level policy
    - POWER Act

SOLUTIONS - STATE LEVEL

POWER Act (HB5513 Gabel/SB4106 Villalam)

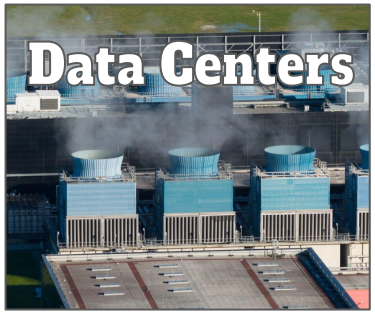
WATER	**Establish transparent reporting and sustainable water use requirements to ensure Illinois's water resources and consumers are protected.**
COMMUNITY	**Establish critical protections to ensure frontline communities are meaningfully protected, supported, and engaged.**
ENERGY	**Establish policies that protect Illinois' climate goals and ensure data centers, not Illinois consumers, shoulder costs.**

SOLUTIONS - STATE LEVEL: POWER ACT

Water

Water Impact Permit (new) at Illinois EPA

- **Yes or No:** No permit for Data Centers that impact our water
- Cooling as **water efficient** as closed loop
- **Data centers pay** for infrastructure costs



Requires:

- Basic planning and report for water use.
- Public Website

ILLINOIS STATE WATER SURVEY
PRAIRIE RESEARCH INSTITUTE

Water Impact Report

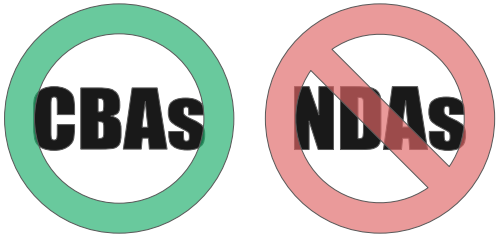
- Model & report on impacts of each data center.

SOLUTIONS - STATE LEVEL: POWER ACT

Communities

Stop Excessive Air Pollution at Data Centers.

Cumulative Impacts Assessment for Environmental Justice Communities requiring a data center to demonstrate it will not exacerbate disproportionate pollution burdens.



Transparent Public Engagement:

- Requires **Community Benefits Agreements**
- Bans **Non-Disclosure Agreements**
- Public notice of any permitting/siting/zoning applications.

Public Benefits and Affordability Fund: All large data centers must pay ($$$$) annually into a fund restricted to support low-income bill assistance and home weatherization programs as well as environmental justice grants.

SOLUTIONS - STATE LEVEL: POWER ACT

Energy

Transmission & Distribution Cost Containment

- Hyperscale Data Center Tariffs - allocated exclusively to data centers

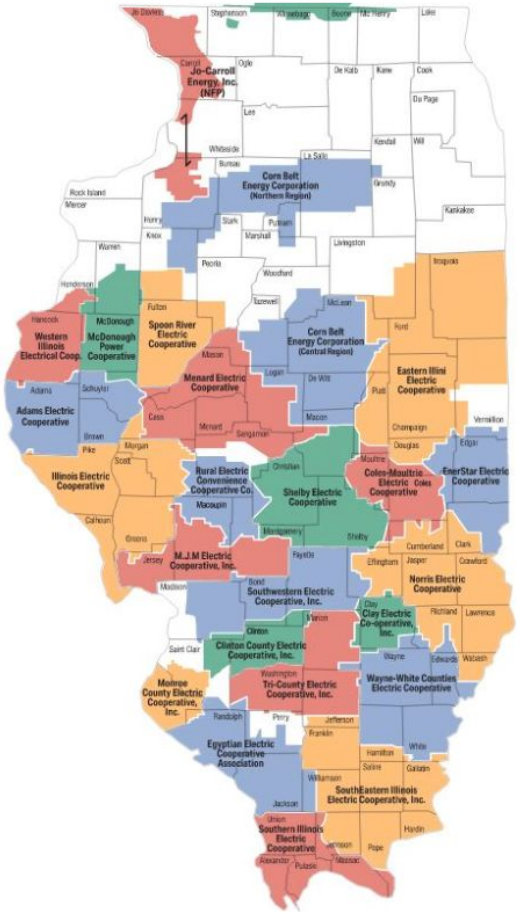
Capacity & Energy Cost Containment Via Incentive

- “Bring Your Own New Clean Capacity & Energy” (BYONCCE) to guarantee around-the-clock operation

Fast-Track Load Interconnection for Responsible, Clean Energy Leadership

- BYONCCE = fast-track interconnection

Renewable Energy Uses No Water!



SOLUTIONS - STATE LEVEL: POWER ACT

Energy for Muni/Co-op Customers

Locally Driven Accountability for Data Centers within Municipal Utilities and Electric Cooperatives

- **Updated integrated resource plan** before service agreement
- **Ensure costs are not passed onto ratepayers**: tariffs, ordinance, etc.
- **Clean Energy & Capacity Procurement Plan**: the utility or the data center

SOLUTIONS - COUNTY/MUNICIPAL LEVEL

Cook County, Municipalities & Townships

Moratoria

- Several jurisdictions - varying lengths

Rejections

- We are seeing jurisdictions get bolder

Ordinances

- Aurora passed a model ordinance
- Often a moratorium until it’s in place

Champaign County takes first step towards a one-year data center moratorium

By Abigail Bottar | March 20, 2026

The Champaign County Board (above) voted on Thursday, Feb. 19, 2026 to create a new data center task force to guide permitting standards. The proposal to enact a 12-month moratorium on large data center facilities would run parallel to the task force's work.

SOLUTIONS - Conservation provisions for statewide law

Ideas for Conservation Provisions

- Carving out dollars from existing data center funds for existing conservation programs
  - E.g. Healthy Forest Wetlands & Prairies Program, Open Land & Grant Program, Natural Areas Acquisition Fund, Natural Areas Stewardship Grant Program

- Separate acre-based tax for facilities
  - Dollars to a newly created fund

- Separate one-time land use impact-fee, acreage based
  - Dollars to a newly created fund

SOLUTIONS - Climate and conservation impacts

Climate's Intersection with Conservation

- Climate and Conservation go hand-in-hand

- National Wildlife Federation's policy resolution on data centers:
  - "BE IT RESOLVED that the [NWF]...June 14-17, 2026…calls upon policymakers…and for the data center industry…to align data center development with wildlife conservation, human well-being, and **climate change mitigation and adaptation** goals;"

The POWER Act is popular!

Statewide polling of Republican, Democrat, and Independent voters.

bit.ly/poweractpoll

Illinois voters back plan to shift data center energy costs, poll finds

By Terrence Lee | Publish

Most Illinois voters support regulations for data centers, poll finds

According to a poll commissioned by the Illinois Clean Jobs Coalition, 68% of Illinois voters support data center regulations.

APR 13, 2026

CBS NEWS

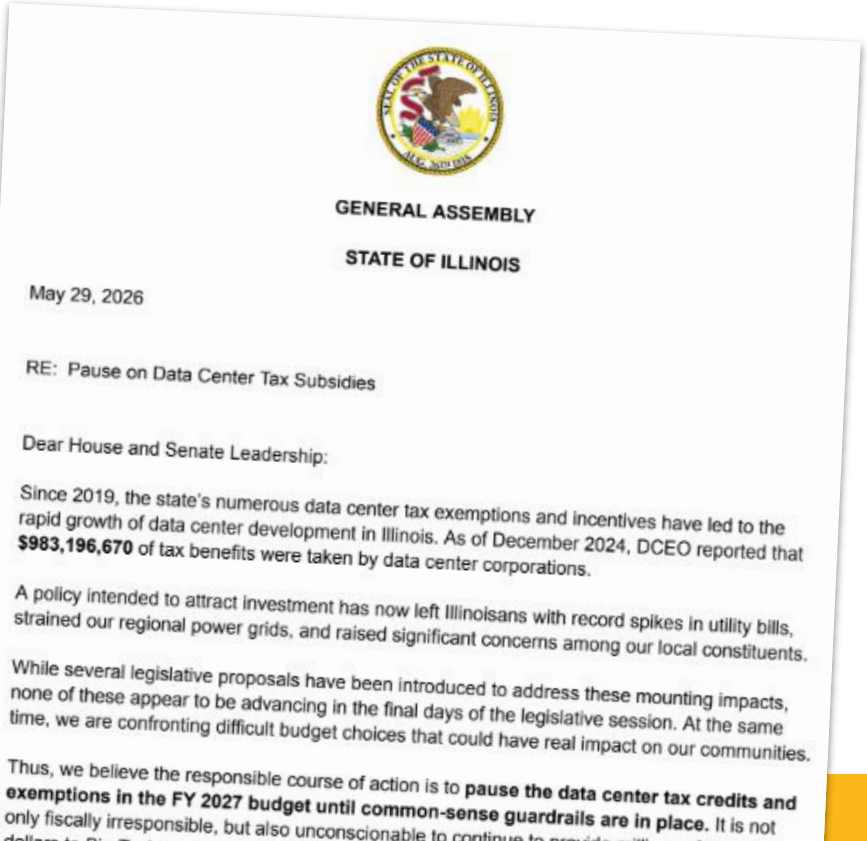
Legislative Inaction in Spring Session

The POWER Act did not pass this Spring, despite:

- 1 *marathon* Subject Matter Hearing in the Senate
- 5 Subject Matter Hearings in the House
- 2 Lobby Days with 100s of attendees
- 4500 MW of data centers getting local approvals
- 3 of 4 Illinoisans in support
- Multiple counties passing moratoriums
- 22 town halls

The Battle Over Tax Credits for Data Centers

- Illinois has had a data center tax credit on the books since 2019 *(worth $1 billion for data centers in 2024)*
- In February 2026, Governor Pritzker called for a pause.
- Legislative leadership did not want to pause the tax credit.
- Over 40 legislators signed on to a letter calling on leadership to pause the credit in the budget.
- Budget passes. Tax credits <u>were not</u> paused.



GENERAL ASSEMBLY

STATE OF ILLINOIS

May 29, 2026

RE: Pause on Data Center Tax Subsidies

Dear House and Senate Leadership:

Since 2019, the state's numerous data center tax exemptions and incentives have led to the rapid growth of data center development in Illinois. As of December 2024, DCEO reported that **$983,196,670** of tax benefits were taken by data center corporations.

A policy intended to attract investment has now left Illinoisans with record spikes in utility bills, strained our regional power grids, and raised significant concerns among our local constituents.

While several legislative proposals have been introduced to address these mounting impacts, none of these appear to be advancing in the final days of the legislative session. At the same time, we are confronting difficult budget choices that could have real impact on our communities.

Thus, we believe the responsible course of action is to **pause the data center tax credits and exemptions in the FY 2027 budget until common-sense guardrails are in place.** It is not only fiscally irresponsible, but also unconscionable to continue to provide [illegible]

Governor Pritzker Takes Action

Gov. Pritzker Pauses New Data Center Tax Incentives

Governor outlines framework to protect consumers and lower energy costs, calls on General Assembly to act in veto session

JUNE 5, 2026

Office of the Governor
JB Pritzker

FOR IMMEDIATE RELEASE: Friday, June 5, 2026 **CONTACT:** Gov.Press@illinois.gov

CHICAGO — Today, following inaction from the Illinois General Assembly, Governor JB Pritzker is directing the Illinois Department of Commerce and Economic Opportunity (DCEO) to pause processing agreements for the Data Center Investment Program starting July 1. The Governor also outlined a comprehensive framework for Illinois to address the growing impact of data centers on energy affordability and reliability, water resources, and local communities.

Governor Pritzker June 5th Announcement

1. Pauses the data center tax credit
   (He directed DCEO to stop processing applications after July 31st)

2. Calls on the General Assembly to take up data centers in Veto Session
   (Veto Session: November 17-19, December 1-3)

3. Releases Framework on Data Center Policy
   (Looks a lot like the POWER Act!)

Gov. Pritzker's Framework on Data Center Policy

1. Data Centers Should Pay Their Fair Share
2. State Tax Incentives Should Be Paused
3. Energy Reliability Must Prioritize Illinois Working Families and Businesses
4. Data Centers Should Support the Development of New Clean Energy
5. Illinois Must Protect Its Water Resources
6. Illinois Must Maintain Strong Clean Air Protections
7. Communities Deserve Transparency and a Meaningful Voice

Ways to ACT on the POWER Act!

- Attend Lobby Days
- Call your legislator
- Letters to the Editor
- Action Alerts

WAYS TO ACT!

Call your Legislators!

Call your legislators' office & ask your representative to sponsor the POWER Act!

See your representative listed below? Call them to thank them for sponsoring!

Current House sponsors:

Rep. Robyn Gabel - Ann M. Williams, Diane Blair-Sherlock, Kimberly Du Buclet, Kelly M. Cassidy, Margaret A. DeLaRosa, Jaime M. Andrade, Jr., Michelle Mussman, Rita Mayfield, Nicolle Grasse, Anna Moeller, Lilian Jiménez, Will Guzzardi and Laura Faver Dias

Current Senate sponsors:

Sen. Ram Villivalam - Robert Peters - Graciela Guzmán - Rachel Ventura, Mattie Hunter, David Koehler, Laura Fine and Sara Feigenholtz

WAYS TO ACT!

Letters to the Editor

Send a letter to the editor to a newspaper near you:

- Letters to the editor (LTEs) are short, just 250 words and can have a BIG impact!

We can help.

Email PRN's Communications Director, Lisa Bralts, at lbralts@prairierivers.org if you are interested.

WAYS TO ACT!

Action Alerts!

Fill out PRN's POWER Act Action Alert to send a message directly to your legislators.

WAYS TO ACT!

Attend a Lobby Day

We're going back in the Fall for Veto Session.

There will be buses. There will be a rally.
There will be visits with legislators.

Stay tuned, join our mailing lists, and keep an eye out in mid November.

Thank You!

Andrew Rehn
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