



Data Centers:

Powering the Internet & our Modern Economy

September 28, 2026

DCC Membership



DCC Membership

Large End Users

ANTHROPIC

 CoreWeave

OpenAI

Associate (Pre-Operational)

 BEACON
DATA CENTERS

Beale
Infrastructure 

CleanArc™
DATA CENTERS

 FLEET
DATA CENTERS

 NSCALE

MONTERA
INFRASTRUCTURE

 RELATED
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Industry Advisory Council



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Powering Business Worldwide

 HOLDER

Johnson
Controls 

MCCARTHY®

 PCI | mission
critical

Life Is On | Schneider
Electric 

RYAN

 VERTIV™

2 Main Types of Data Centers

Self-Perform/Enterprise

Business owns/controls servers and peripherals, may own facility

Multitenant and Build to Suit

Facility owner leases to one or more tenants

Data Centers Are Highly Efficient Consumers of Energy



POLICY FORUM

ENERGY

Recalibrating global data center energy-use estimates

Growth in energy use has slowed owing to efficiency gains that smart policies can help maintain in the near term

- ▶ “In 2010, the researchers estimated that **79 percent of data center computing was done in smaller traditional computer centers**, largely owned and run by non-tech companies.”
- ▶ “By 2018, **89 percent of data center computing took place in larger, utility-style cloud data centers.**”
- ▶ A 2020 study of data centers globally found that while their **computing output jumped 550% from 2010 to 2018**, their **energy consumption rose only 6%.**

Increasing Data Center Demand

- In the US market alone, demand—measured by power consumption to reflect the number of servers a data center can house—is expected to reach **80 gigawatts (GW) by 2030**, up from 25 GW in 2024, according to McKinsey & Company.
- The United States accounts for roughly **40 percent** of the global market.

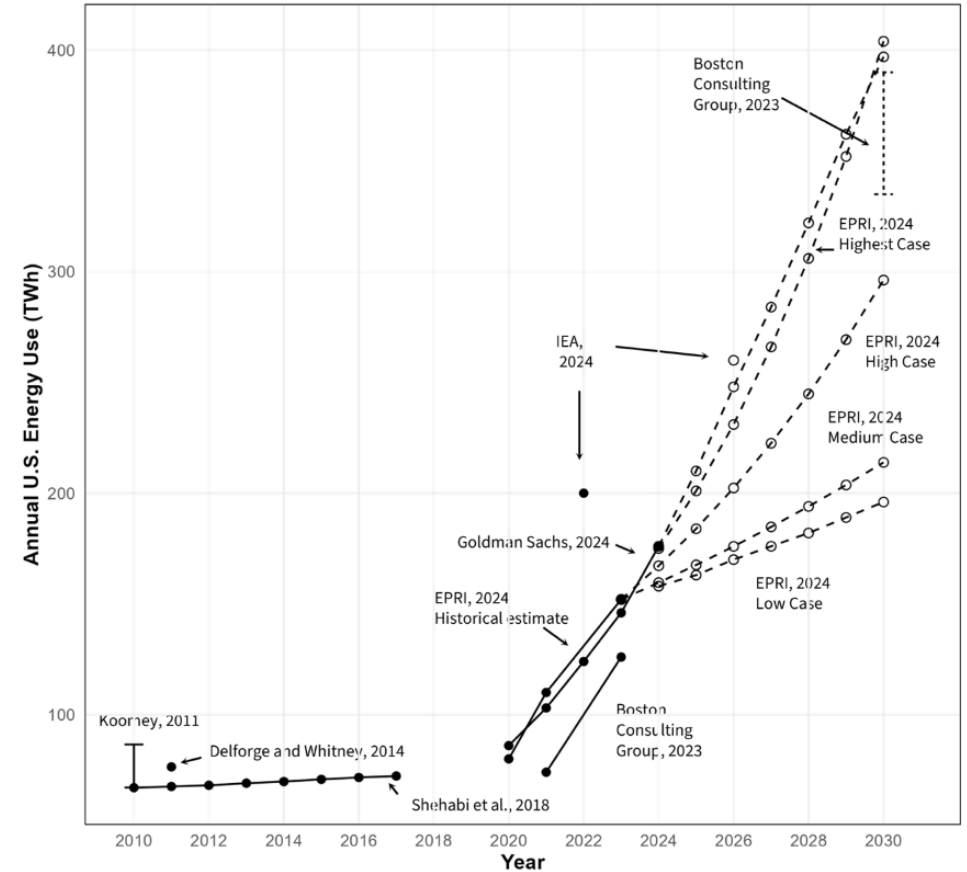


Figure 1.1. Academic and industry historical estimates of U.S. data center energy use.

Source: McKinsey & Company, "How data centers and the energy sector can sate AI's hunger for power", September 17, 2024, <https://www.mckinsey.com/industries/private-capital/our-insights/how-data-centers-and-the-energy-sector-can-sate-ais-hunger-for-power>

Image Source: Lawrence Berkeley National Laboratory, 2024 United States Data Center Energy Usage Report, December 2024, <https://escholarship.org/uc/item/32d6m0d1>

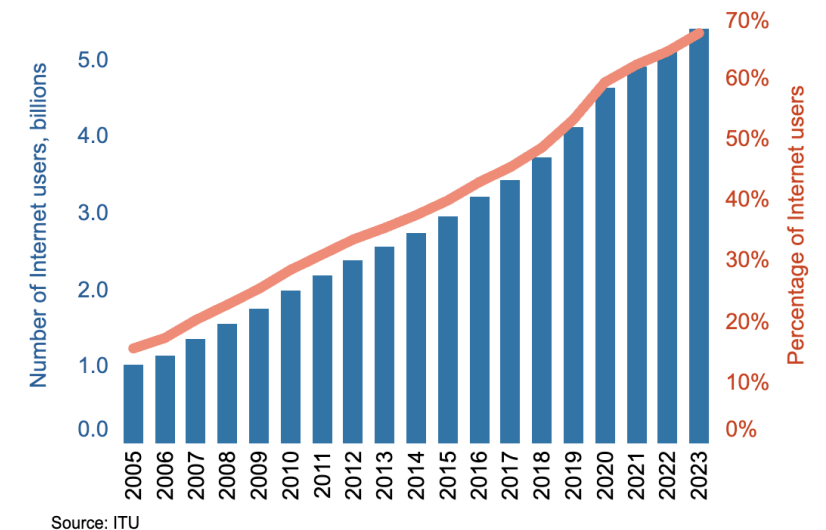
Number of People/Devices Drives Data Center Demand

"The data center industry has experienced explosive growth over the past decade, driven by ever-increasing demand for cloud services and the expanding use of web-enabled devices globally. [...] **In the next five years, consumers and businesses will generate twice as much data as all the data created over the past 10 years.**"

- JLL, *Data Centers 2024 Global Outlook*

More People Are Getting Online

- ▶ Approximately 5.4 billion people - or 67% of the global population - are online today. This represents an **increase of 45% since 2018**. 2.6 billion people are not yet connected to the internet.
- ▶ On average, U.S. households have a total of **21 connected devices**.



Sources: JLL, *Data Centers 2024 Global Outlook*, <https://www.us.jll.com/content/dam/jll-com/documents/pdf/research/global/jll-data-center-outlook-global-2024.pdf>

International Telecommunication Union, <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

Deloitte "Shiny new devices may be bringing joy, but who's protecting consumer data?", January 23, 2023 <https://www2.deloitte.com/us/en/insights/industry/technology/consumer-data-privacy.html>

New Products/Experiences/Applications Drive Demand

- ▶ Cloud Services
- ▶ Generative AI
- ▶ Business Apps
- ▶ Healthcare
- ▶ Internet of Things/Connected Devices
- ▶ Streaming Video

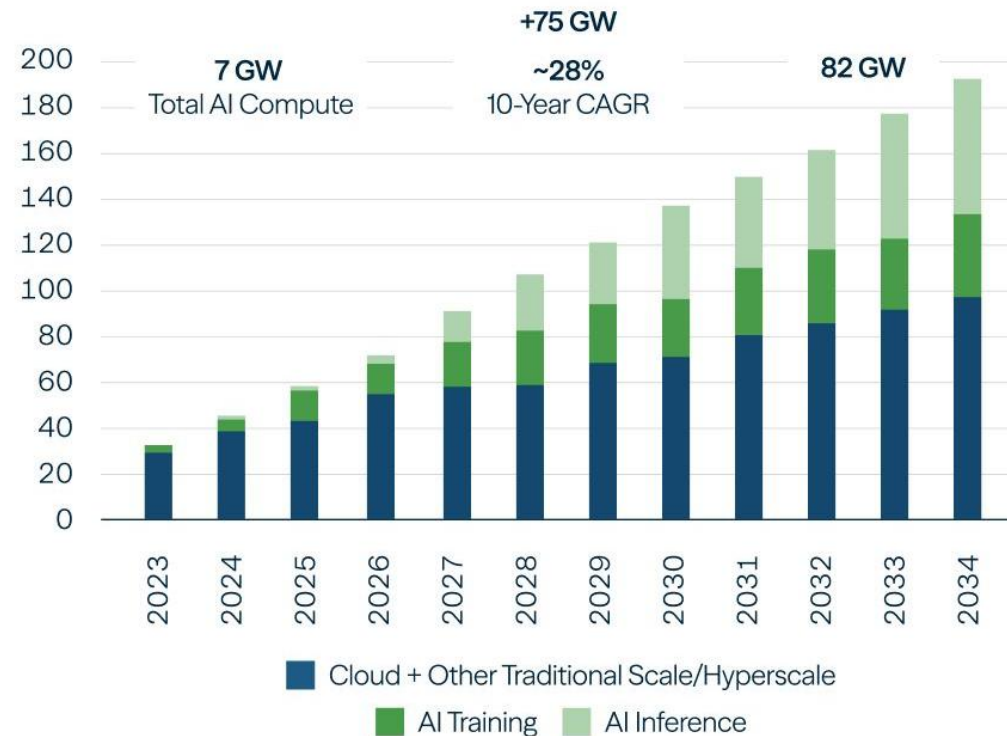
- ▶ Virtual/Augmented Reality
- ▶ eCommerce
- ▶ Machine Learning
- ▶ Payment Processing
- ▶ Online Learning
- ▶ Autonomous Vehicles
- ▶ Innovation!

What Drives Data Center Demand?

Brookfield

Data Center Demand for Cloud vs. AI Training and Interface

Total Global Installed Base (GW)



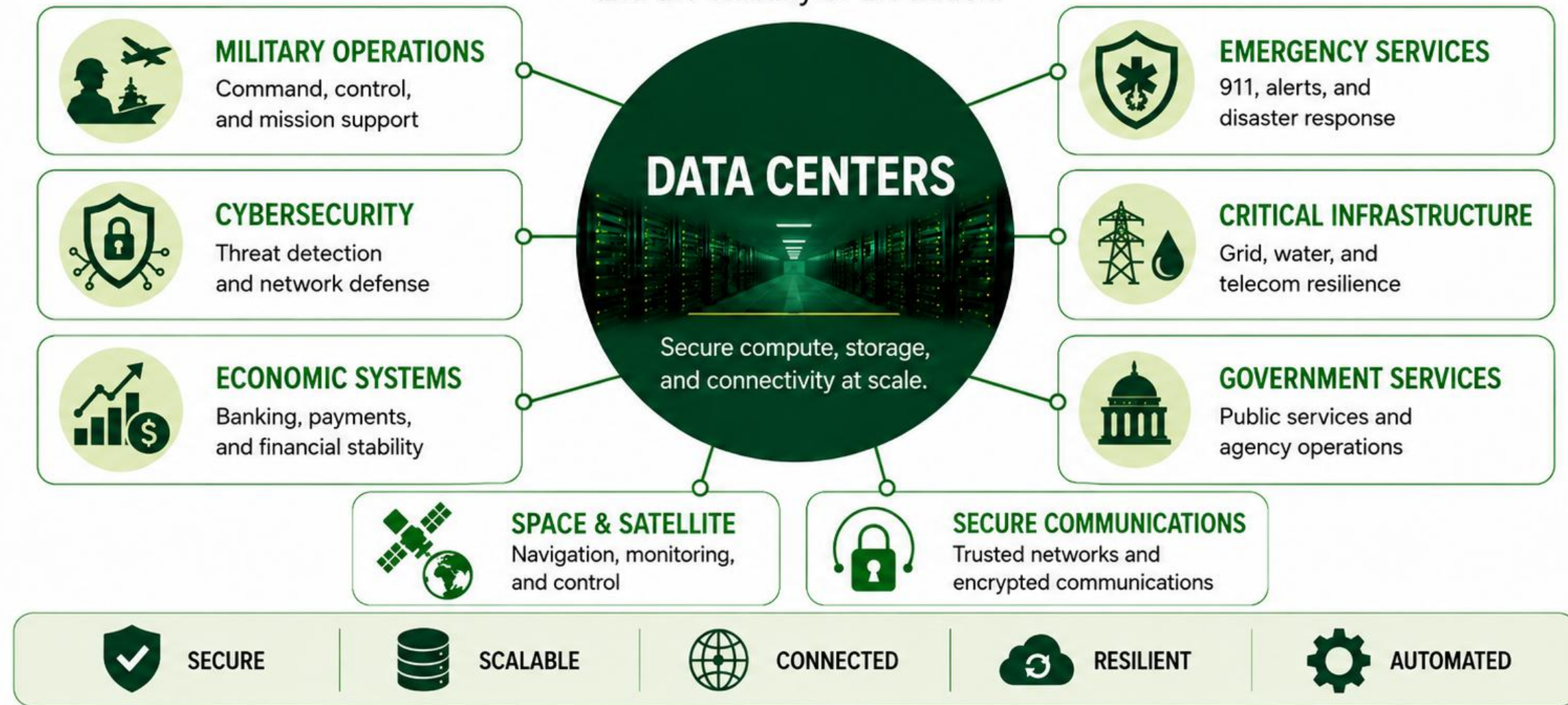
Source: Brookfield internal research



Source: Brookfield, LinkedIn, December 2025, https://www.linkedin.com/posts/brookfield_ai-data-center-capacity-is-projected-to-grow-activity-7401670262233911296-vdki?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAV_ci4BPKOJbXob-Y75uZVwxo7IbW0YCow

HOW DATA CENTERS SUPPORT U.S. NATIONAL SECURITY

Powering defense, intelligence, infrastructure,
and the stability of the nation.

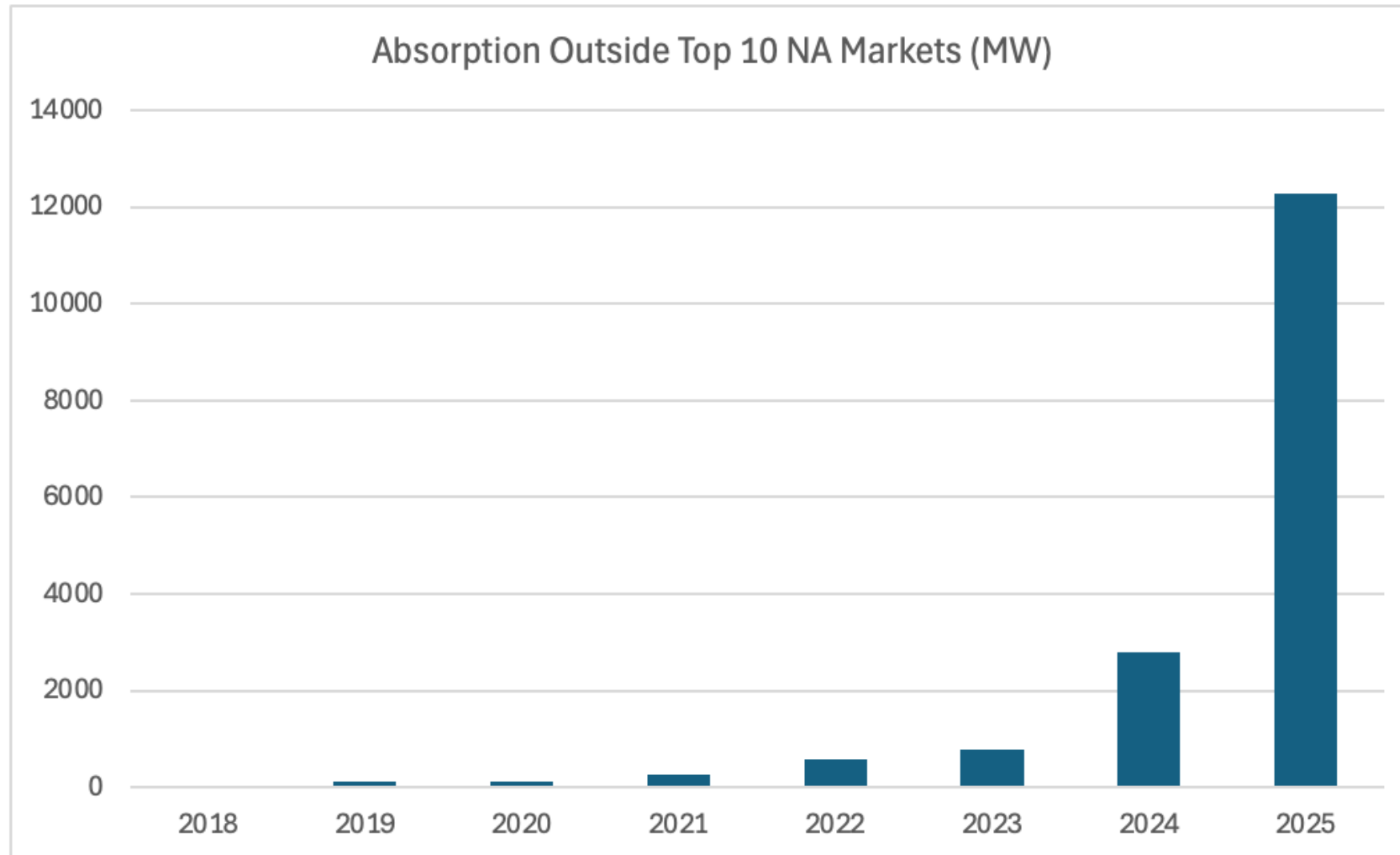


Resilient. Secure. Scalable.

Key Siting Considerations Include

- Time to Market
- Access to Fiber/Connectivity
- Access to Water for Industrial Purposes
- Access to Clean, Reliable, Affordable Energy
- Climate and Risk of Natural Disaster
- Land Availability and Cost
- Tax and Regulatory Climate
- Ownership/Occupancy Costs
- Access to Skilled Construction and Technology Workforce

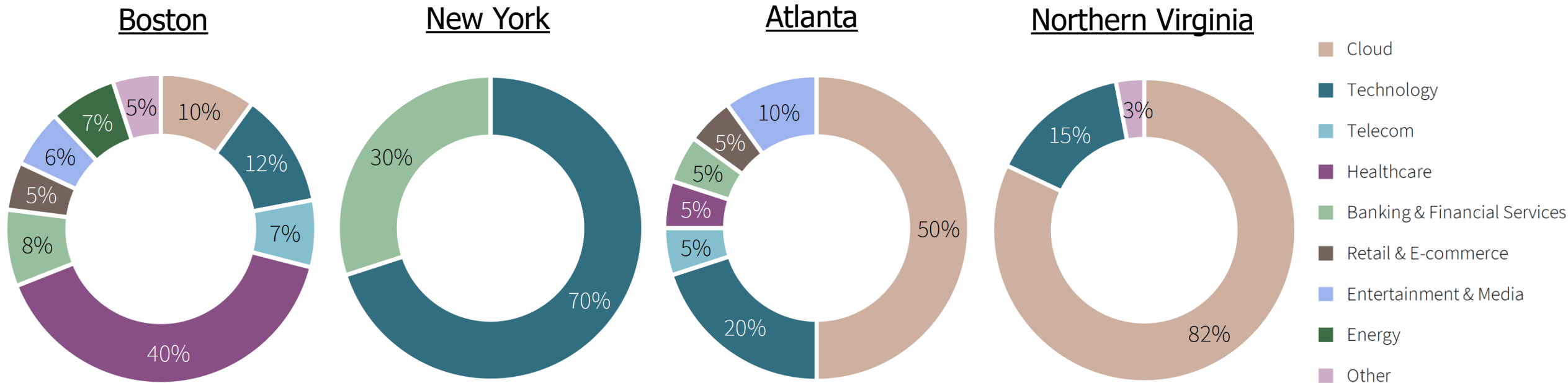
Data Center Trends



Source: datacenterHawk, <https://datacenterhawk.com/>

Data Center Trends

User Demand by Industry Varies Across Markets



Why Data Centers?

- Tremendous Capital Investment
- Big Driver of Tax Revenue
- High Wage Jobs, Low Demand on Services
- Substantial Construction Jobs and Activity
- Building and Strengthening Tech Ecosystem
- Catalyst for Energy Development

U.S. Data Center Industry

Jobs

- **1,005,080 direct jobs** in 2024
- **5.5 million in total employment** in 2024 — 17% increase from 2023
- **\$525 billion in total labor income** in 2024 — 22% increase from 2023
- **Each job in the data center industry supports 4.5 jobs** elsewhere in the economy

GDP

- **\$1.7 trillion in cumulative impact on GDP 2023-2024**

Taxes – Federal, State, and Local

- **\$369 billion in total impact from 2023-2024**



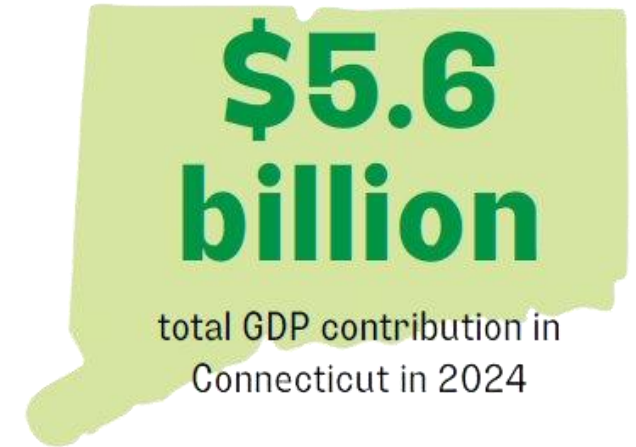
Connecticut Data Center Industry

Jobs

- 2024 **direct** employment: **9,710**
- 2024 **total** (direct, indirect, and induced) employment: **32,170**

Labor Income

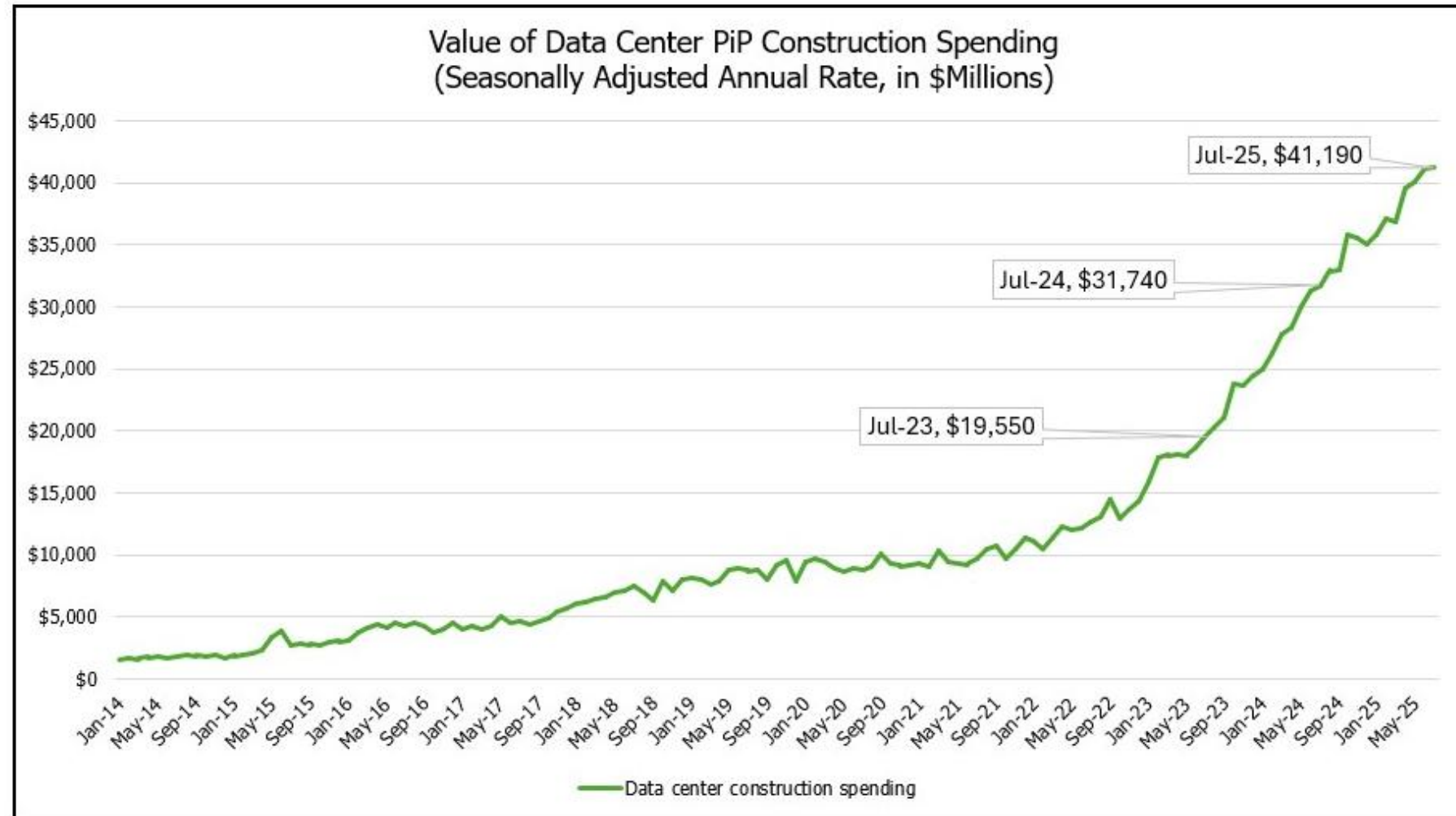
- 2024 **total** (direct, indirect, and induced) labor income: **\$3.3 billion**



GDP and Taxes Impact

- **\$5.6 billion** (direct, indirect, and induced) to Connecticut GDP in 2024
 - **29% increase** from 2023
- **\$337 million** (direct and indirect) in state and local tax revenues in 2024

Data Center Trends

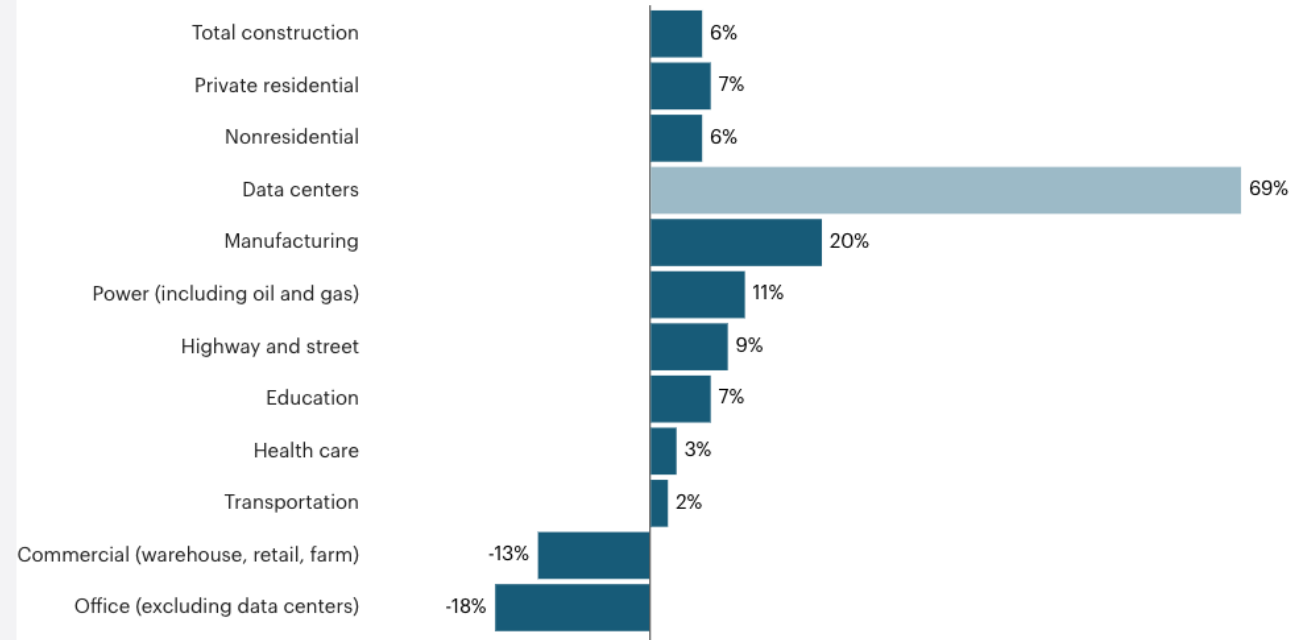


Source: U.S. Census Bureau Construction Spending Data: Historical Value of Private Construction Put in Place (PiP), July 2025

Data Center Trends

CHANGE IN U.S. CONSTRUCTION SPENDING, MAY 2023–MAY 2024

The year-over-year percentage change in U.S. construction spending in current dollars, seasonally adjusted.



Source: Associated General Contractors of America, July 2024 report

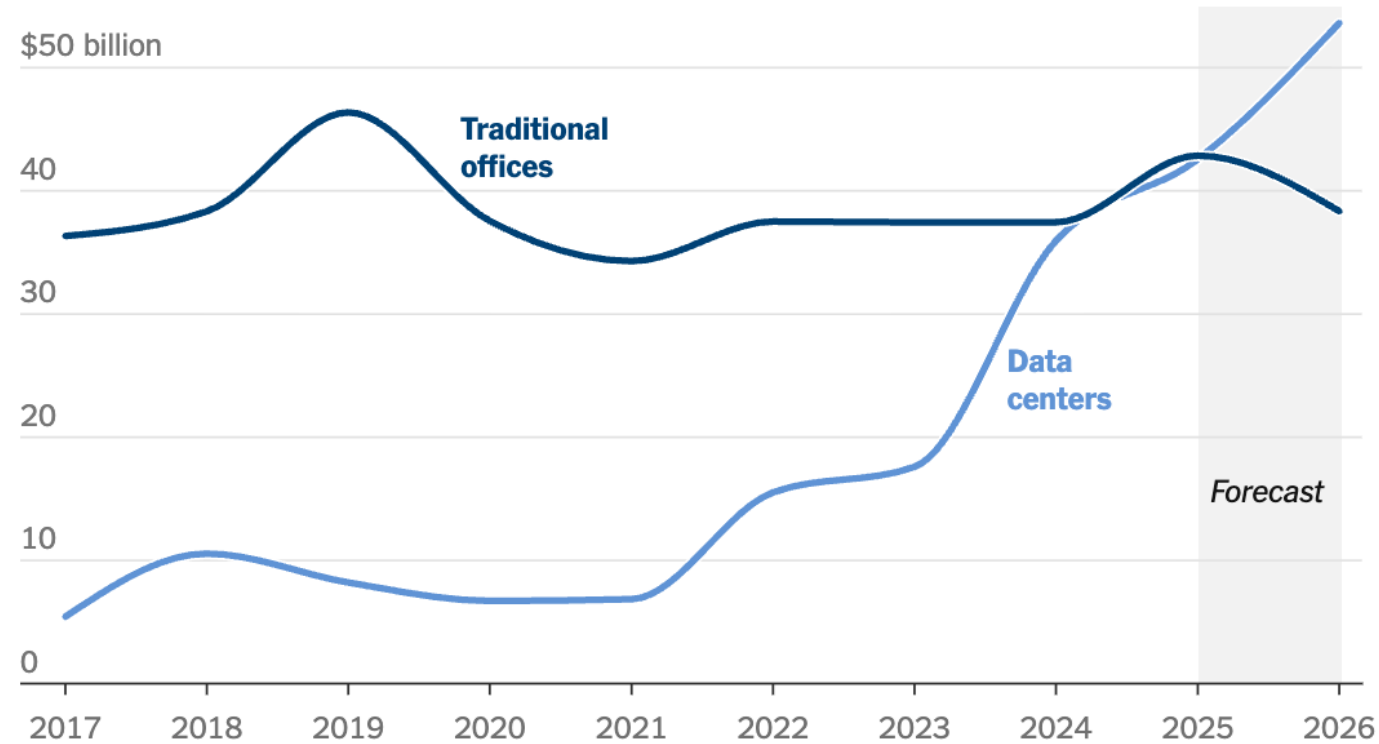
THE BUSINESS
JOURNALS



Data Center Trends

A.I. Infrastructure Has Overtaken Office Construction

Spending on building data centers has ballooned in recent years – and that's not even counting the equipment that goes into them.



Note: Spending is recorded in the year the project starts construction. • Source: Dodge Construction Network • By The New York Times



Source: The New York Times, The A.I. Spending Frenzy Is Propping Up the Real Economy, Too, August 27, 2025, <https://www.nytimes.com/2025/08/27/business/economy/ai-investment-economic-growth.html>

Data Center Industry Drives Job Creation & Workforce Development



The Tech Job Paying Six Figures, No College Degree Required

The technicians who keep America's colossal data centers humming enjoy huge demand and earnings potential—and defy the traditional blue- and white-collar categories of work

Deborah Martinez Castellanos checks out the rooftop chillers at the data center where she works to ensure they are functioning properly.

By [Te-Ping Chen](#) [Follow](#) | Photographs by Maansi Srivastava for WSJ
Aug. 14, 2024 5:30 am ET

THE WALL STREET JOURNAL.

BUSINESS

Data Centers Are a 'Gold Rush' for Construction Workers

Surging demand means six-figure pay and more perks

By [Te-Ping Chen](#) [Follow](#)

Nov. 29, 2025 8:00 pm ET



Sources: [The Wall Street Journal](#), "The Tech Job Paying Six Figures, No College Degree Required", Aug. 14, 2024 & [The Wall Street Journal](#), "Data centers Are a 'Gold Rush' for Construction Workers", Nov. 29, 2025

Data Center Tax Revenues Help Address Local Priorities

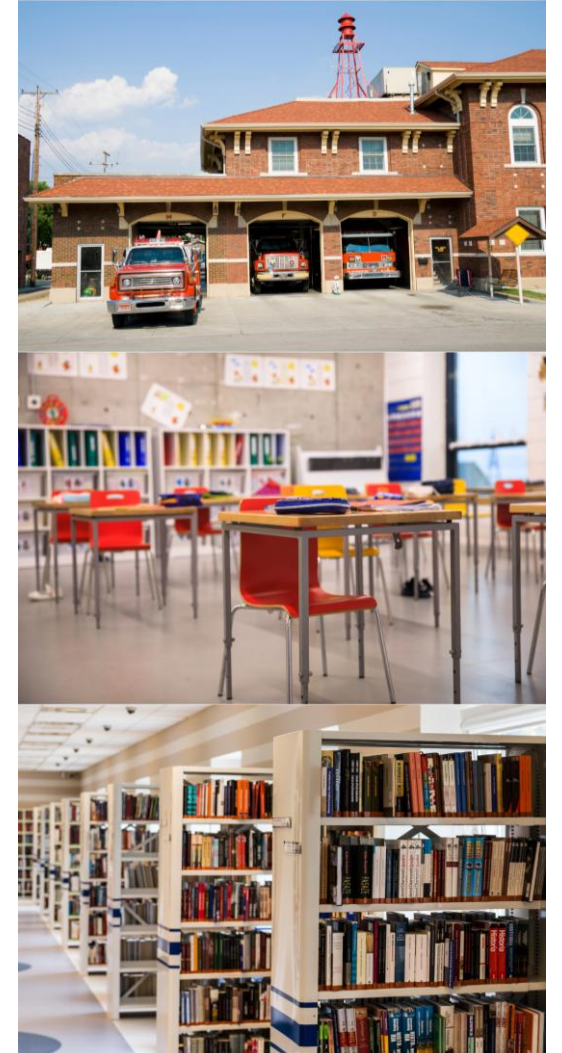
2022 Local Tax Benefit For Every
\$1 Spent on Local Services

Loudoun County

\$1.00 → **\$26.00**

Prince William County

\$1.00 → **\$13**



Data Center Tax Revenues Support Affordability

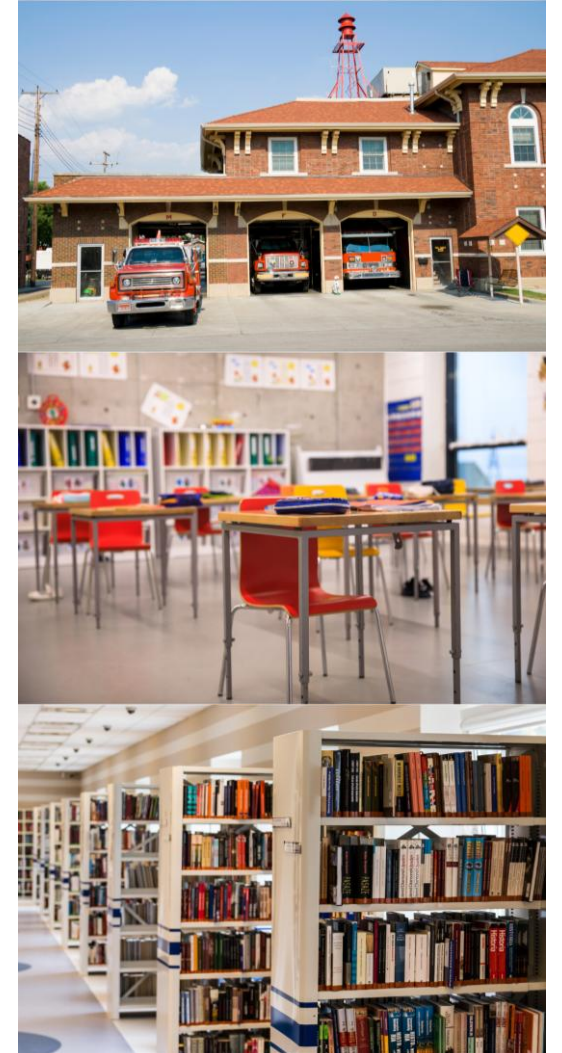
Loudoun County, Virginia:

- Condo owners will see the largest decrease in their tax bills with the average per unit bill seeing a \$141 difference. **Single-family attached homes will see an average decrease of \$112**, and single-family detached homes will see an average of \$8 in savings.
- The draft budget also includes a **67-cent reduction in the vehicle property tax rate**, bringing down the existing \$4.15 cent rate to \$3.48 cents.
- **The tax bill for a vehicle valued at \$20,000 would be \$134 less in fiscal year 2026** than it would be in fiscal year 2025 under the new rate.
- Hemstreet said the significant rate reductions are **only made possible by the “unprecedented” 50% increase in commercial property valuations attributable to the data center industry.**

Data Center Tax Revenues Help Address Local Priorities

Red Oak, Texas:

- To put it in perspective, with \$13 billion in data center investments already underway, and more in our development pipeline, **these facilities are set to quadruple our city's total taxable land value.**
- **Moreover,** since most of the land on which these data centers are being built was previously tax-exempt, these investments have brought and continue to bring an increase to our city revenue.
- **These new funds allow us to make meaningful investments,** supporting education, strengthening public safety, expanding infrastructure and creating spaces for recreation and connection, all to enhance the quality of life for our residents.



Why Do Data Centers Use Water?

Servers and IT equipment generates heat as a byproduct of computing
That heat must be continuously removed or equipment fails

Scope 1 (Direct)

- Water used on-site (mainly cooling)

Scope 2 (Indirect)

- Water used in the process of generating electricity

Scope 3 (Embodied)

- Water used to produce building materials (chip, steel, cement, etc.)

No Industry is Doing More to Advance Clean Energy

- In 2024, data center companies accounted for roughly **half of all corporate clean energy procurement** in the U.S.
 - **90%** in North America and Europe in 2025
- By 2030, **72% of data centers water consumption** is projected to be tied to **power generation**
- **Clean energy** generation uses **near negligible amounts of water** compared to thermal power generation

Data Center Onsite Cooling

There is **no one size fits all solution** for data center cooling: climate, availability of water, and design

Energy-water tradeoff: cooling systems that use more water use less energy and vice versa

Cooling Methods

- Server level cooling
 - Air cooling: fans and AC move hot air out and cool air in
 - Liquid cooling: liquid coolant removes heat directly from chips, moved away, cooled, recirculated
 - Hybrid: combination
- Building level cooling
 - Non-evaporative: uses fans and AC to reject heat to outside air
 - Evaporative cooling: uses water evaporation to reject heat

Data Centers and Water Use

Data centers are estimated to use approximately **39 billion gallons per year (BGY)** of water in 2025.

That is compared to:

- **Utility water leakage: 2,500 BGY**
 - 18% of municipal treated water is lost to leakage
- **Food and beverage industry: 533 BGY**
- **Semiconductor industry: 59 BGY**



According to the Joint Legislative Audit and Review Commission in Virginia, **83% of data centers in the world's largest market use the same or less water than a large commercial office building.** The report also found data center water use in the state is sustainable.



Where Does This Water Come From?

Misconception: "It is all drinking water"

- Municipal water
 - Potable drinking-quality water
- Reclaimed "purple pipe"
 - Treated wastewater, non-potable
- Groundwater / well water
 - Pumped on or near site
- Rainwater harvesting



DCC members are committed to working transparently with communities, delivering community benefits alongside water stewardship, and paying the full cost of water and the water infrastructure needed to strengthen local systems without shifting project costs to existing customers.

Policy Positions:

- **Support for meaningful annual water reporting and site-specific evaluations of watershed health for operational data centers** that protects proprietary and security-sensitive information
- **Technology-neutral policies** that let operators choose solutions suited to regional water conditions and energy availability and continue to innovate
- **Expand access to reclaimed and recycled water** through supportive permitting and infrastructure policy

DCC Member Commitments

Understanding the Drivers of Rising Electricity Rates and the Role of Data Centers

- **UNCLEAR RELATIONSHIP BETWEEN GROWTH & RATE HIKES:** State-level analysis shows **no direct correlation between load growth and rising electricity rates**.
- **DATA CENTERS CAN LOWER CUSTOMER RATES:** A study cited in the report found that **the data centers evaluated paid their full infrastructure costs plus a surplus**, which generated net positive revenue for those utilities.
- **INDUSTRY IS PAYING ITS OWN WAY:** The review found **no evidence of a historic cost shift from data centers to other customers**. New mechanisms are increasingly being used to ensure data centers pay for their share of grid investments.
- **PRIMARY DRIVERS OF RISING RATES:** **Retail rate outcomes are influenced by broader supply demand dynamics**, market design choices, fuel cost volatility, generation retirements, inflation, and other utility investments such as grid modernization, wildfire mitigation and policy compliance — not load growth alone.
- **PJM MARKET ANALYSIS:** In a new analysis of the PJM market (13 states and DC*), E3 **found data center driven load growth accounted for ~50% of the capacity cost increase** while five other factors drove the other 50%.

**Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.*

Source: Energy + Environmental Economics (E3), Understanding the Drivers of Rising Electricity Rates and the Role of Data Centers, May 2026, <https://www.ethree.com/electricity-rate-drivers-data-center-role-2026/>



Understanding the Drivers of Rising Electricity Rates and the Role of Data Centers

5 Key Drivers of U.S. Electricity Prices



INFLATION



NATURAL
GAS



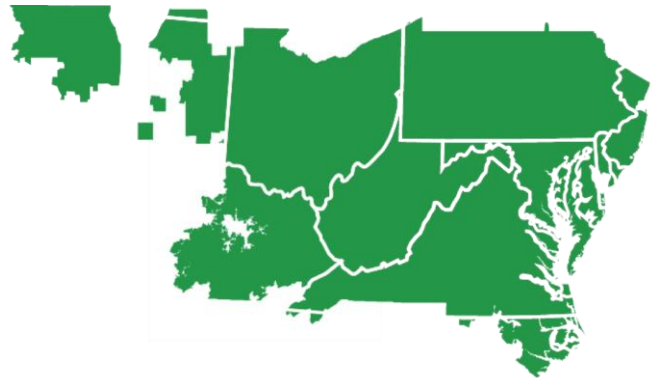
GRID
MODERNIZATION



EXTREME
WEATHER



MARKET
DESIGN



PJM Market: Recent capacity price spikes have reflected tightening supply conditions. PJM responded by advancing proposals to reform its market and processes. The 13 PJM-state governors and federal officials issued a Statement of Principles calling for more immediate and structural reforms.*

**Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.*

Data Centers and Energy

CRAIN'S CHICAGO BUSINESS

Opinion: Data center growth fuels clean power and job creation. too

Clarion Ledger

Mississippi's proving data centers don't always mean higher power bills

The Economist

Americans' electricity bills are up.
Don't blame AI

Were it not for data centres, prices might be even higher

The Atlanta Journal-Constitution

BUSINESS

Georgia Power CEO teases plans to lower rates, touts data center expansion

The Washington Post

There's a reason electricity prices have been rising. And it's not data centers.

PBS NEWS HOUR

How data center power demand could help lower electricity prices

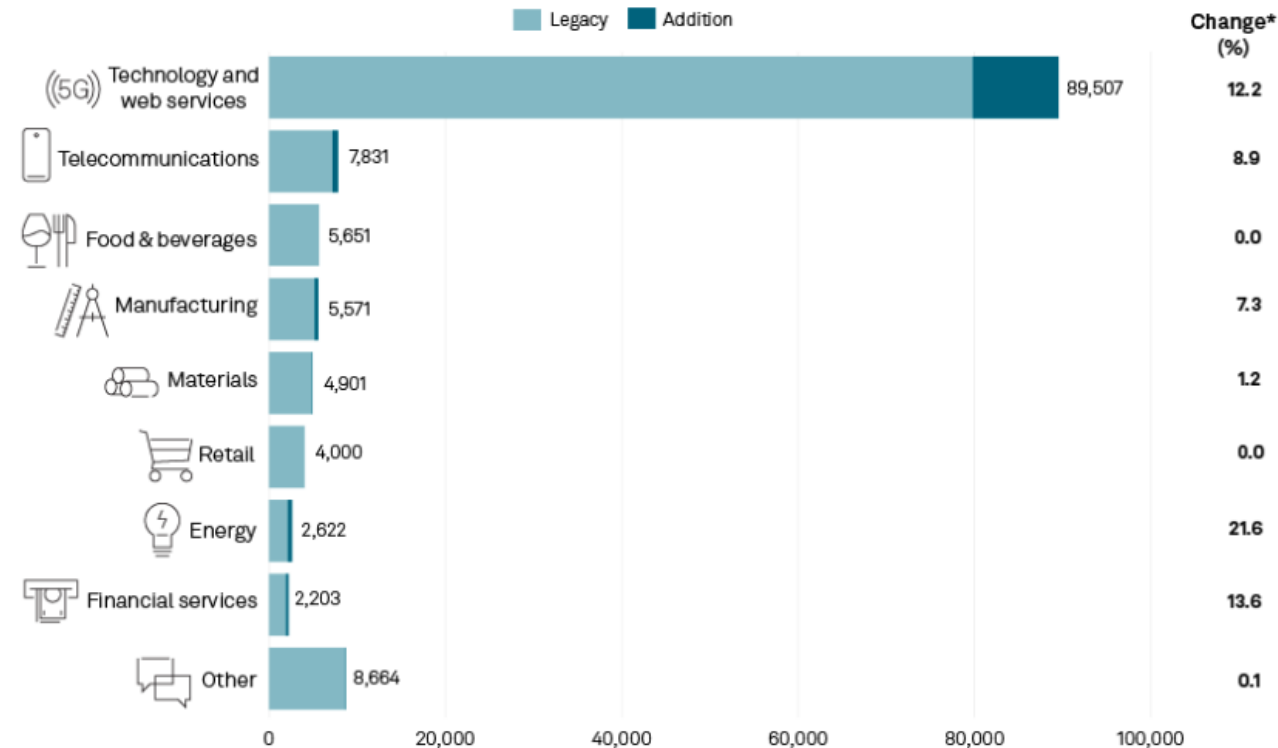
**21
ALIVE**

I&M to lower electric rates, citing revenue from data centers



Advancing Access to Clean Energy and Greening the Grid

Contracted US carbon-free energy capacity by sector (MW)



As of July 10, 2025.

* From February 2025 to July 2025.

Tracked carbon-free energy capacity contracted with US projects only. Includes totality of Microsoft-Brookfield deal pending further visibility into US and Europe breakout for contracted capacity.

Cumulative capacity. All tracked deals.

Analysis does not include most on-site corporate renewable capacity, such as rooftop solar systems.

Legacy database adjusted based on availability of new information.

Sources: S&P Global Market Intelligence; public reports.

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Source: S&P Global, *Corporate-signed US clean energy surpasses 130 GW amid shifting policy support*, July 30, 2025, <https://www.spglobal.com/market-intelligence/en/news-insights/research/corporate-signed-us-clean-energy-surpasses-130-gw-amid-shifting-policy-support>

Data Centers Deliver Grid Benefits

- Highly efficient facilities – and incentivized to continue pursuing efficiency
- Enabling efficiencies and energy savings for all customers economy-wide
 - Enabling smart thermostats, demand response, managed EV charging, grid enhancing technologies, wildfire monitoring technologies, etc.
- Strong sustainability commitments
- Predictable, high load factor customers
- Committed to paying full cost of service
- Significant investments in carbon-free energy projects and next-generation technologies



Legislative Considerations



Questions?