



Data Centers:

Powering the Internet and Our Modern Economy



Data Center Coalition (DCC)

- **Voice** of the data center industry
- **Advocates** for a business climate, policies, and investments that support the growth and competitiveness of the industry
- **Information Resource** for elected officials, regulators, utilities, community leaders, and other stakeholders

DCC members are leading data center owners and operators, as well as companies that lease large amounts of data center capacity.



What Do Data Center Providers Do?

Our members build, own, and operate data centers



**For their own operations,
one client,
or many clients
in a single building**

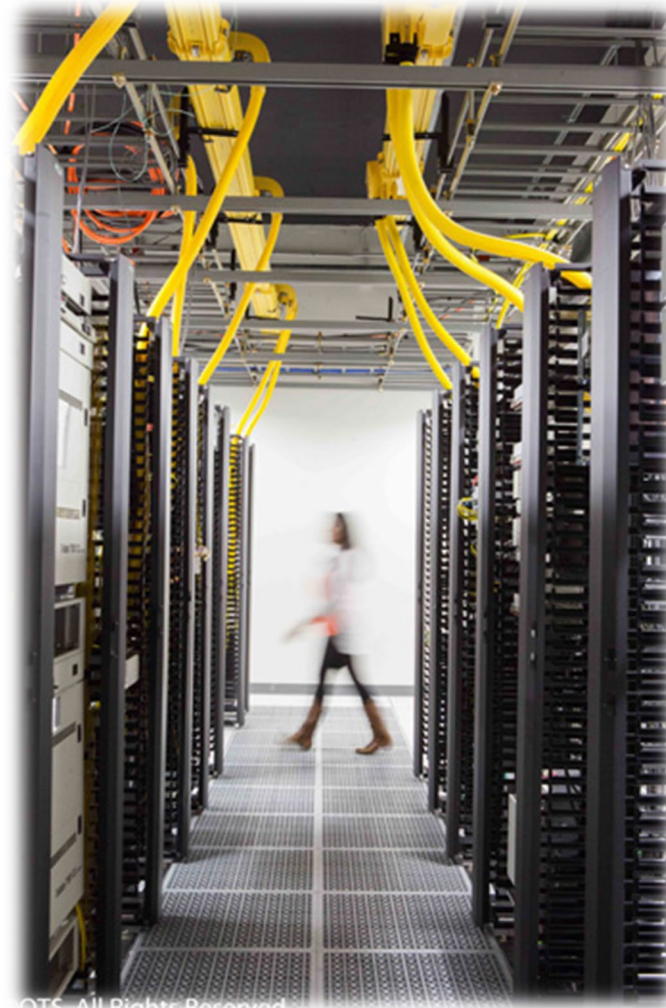


**Or for a single
company or client
on a campus**



Inside a Data Center

- Building Shell
- Interior Space
- Security
 - Exterior
 - Interior
 - Cyber
- Servers
- Fiber/Networking Connectivity
- Reliable Power 24/7
 - Grid & Backup Generation
- HVAC/Cooling



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

Why Data Centers?

- Significant driver of economy
- Enable digital infrastructure that supports our daily lives and modern economy
- Represent huge capital investments

Why Data Centers?

- Generation of substantial tax revenue
- Build and support larger ecosystems of suppliers, service providers, and other sectors of the economy
 - **Each direct job in the data center industry supports more than six additional jobs**

U.S. Data Center Industry

Jobs

- **603,900 direct jobs** in 2023—51% increase from 2017
- **4.7 million in total employment** in 2023—60% increase from 2017
- **\$404 billion in total labor income** in 2023—93% increase from 2017

GDP

- **\$3.5 trillion in GDP impact** between 2017-2023

Taxes – Federal, State, and Local

- **\$162.7 billion in total impact** in 2023 - 146% increase from 2017



Data Centers Are Highly Efficient Consumers of Energy



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

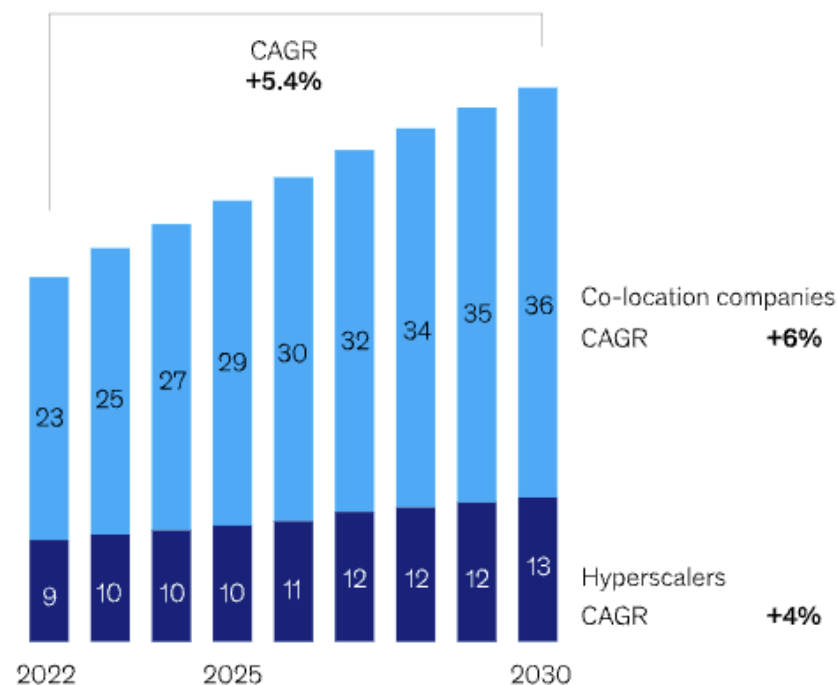
- In 2010, 79 percent of data center computing was done in smaller traditional computer centers, largely owned and run by non-tech companies.
- By 2018, 89 percent of data center computing took place in larger, utility-style cloud data centers.
- While energy consumption by data centers rose 6 percent from 2010 to 2018, computing output jumped 550 percent.

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.

Global spending on the construction of data centers is forecast to reach \$49 billion by 2030.

Data center construction spending,¹ \$ billion

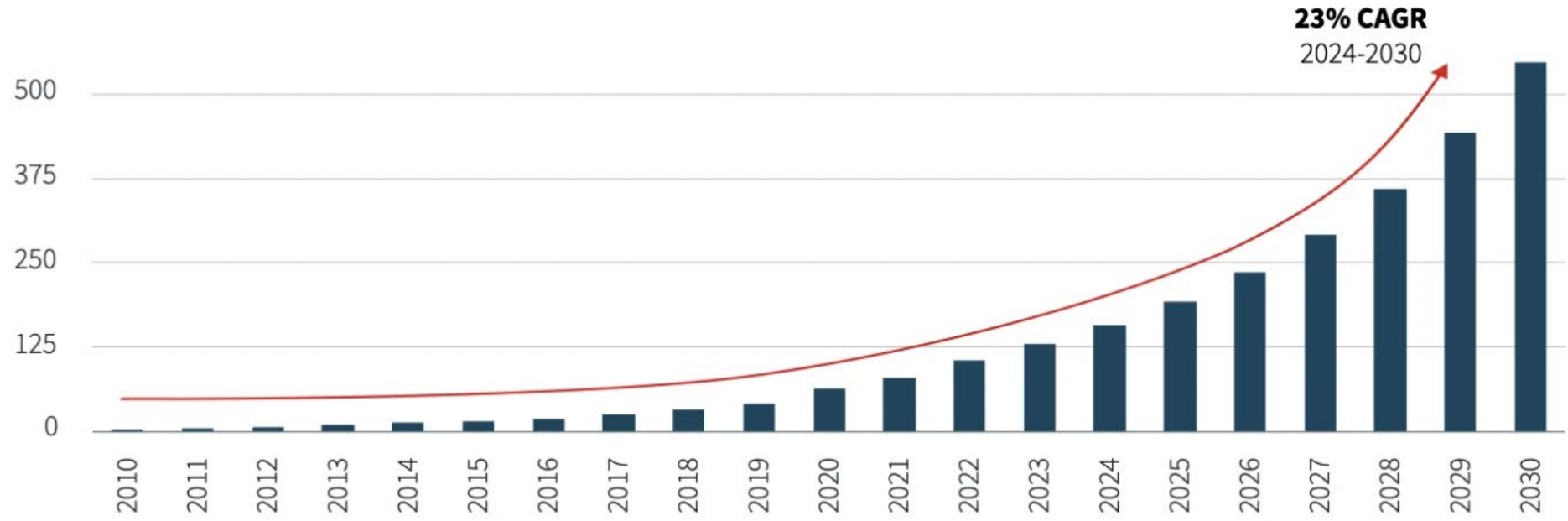


¹Includes construction spending by providers. Excludes enterprise spending and any other capital expenditure outside of construction (such as equipment).
Source: Synergy Research Group

McKinsey & Company

What Drives Data Center Demand?

Global data created annually in zettabytes



Source: JLL Research, IDC

Source: Urban Land, Nuclear Power Makes a Comeback as Data Centers Adapt to Rising Power Demands, October 14, 2024, <https://urbanland.uli.org/resilience-and-sustainability/nuclear-power-makes-a-comeback-as-data-centers-adapt-to-rising-power-demands>



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.**"

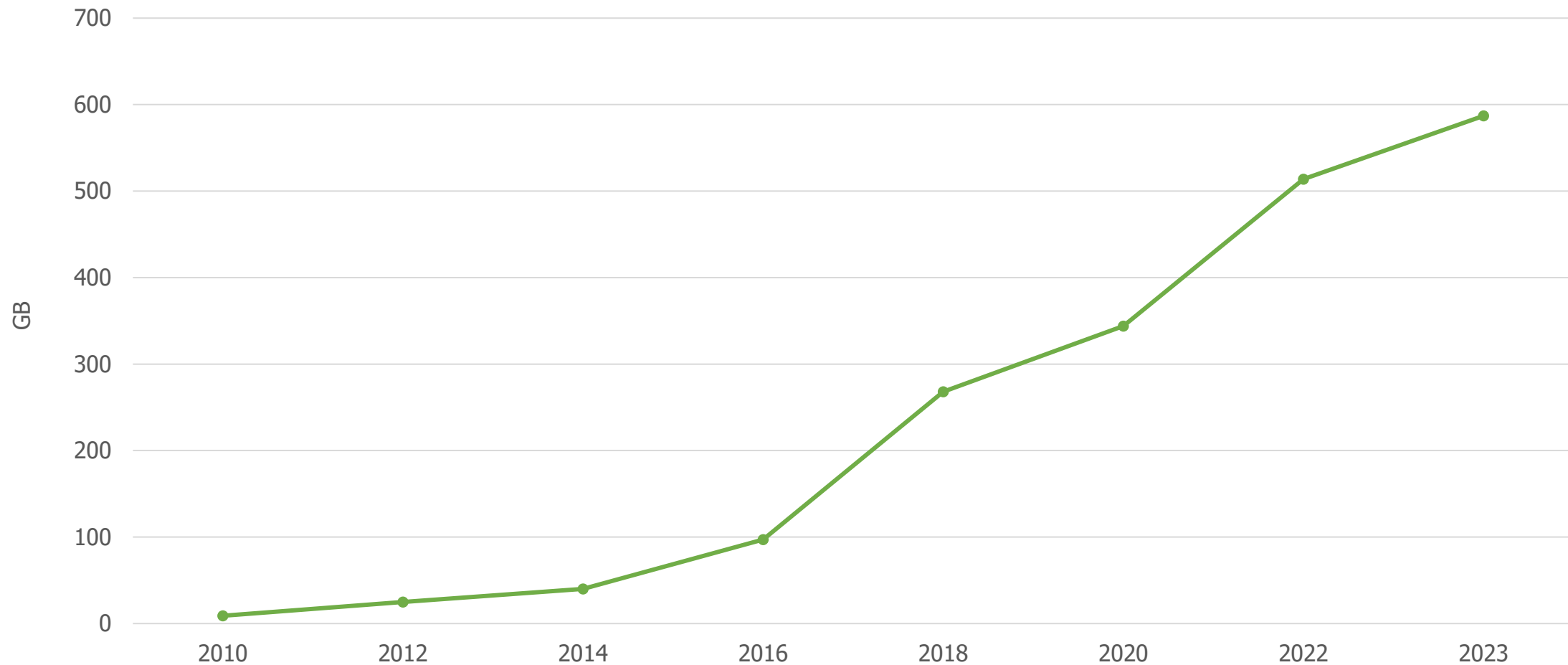
-JLL, *Data Centers 2024 Global Outlook*

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**.

Home Internet Use Drives Data Center Demand

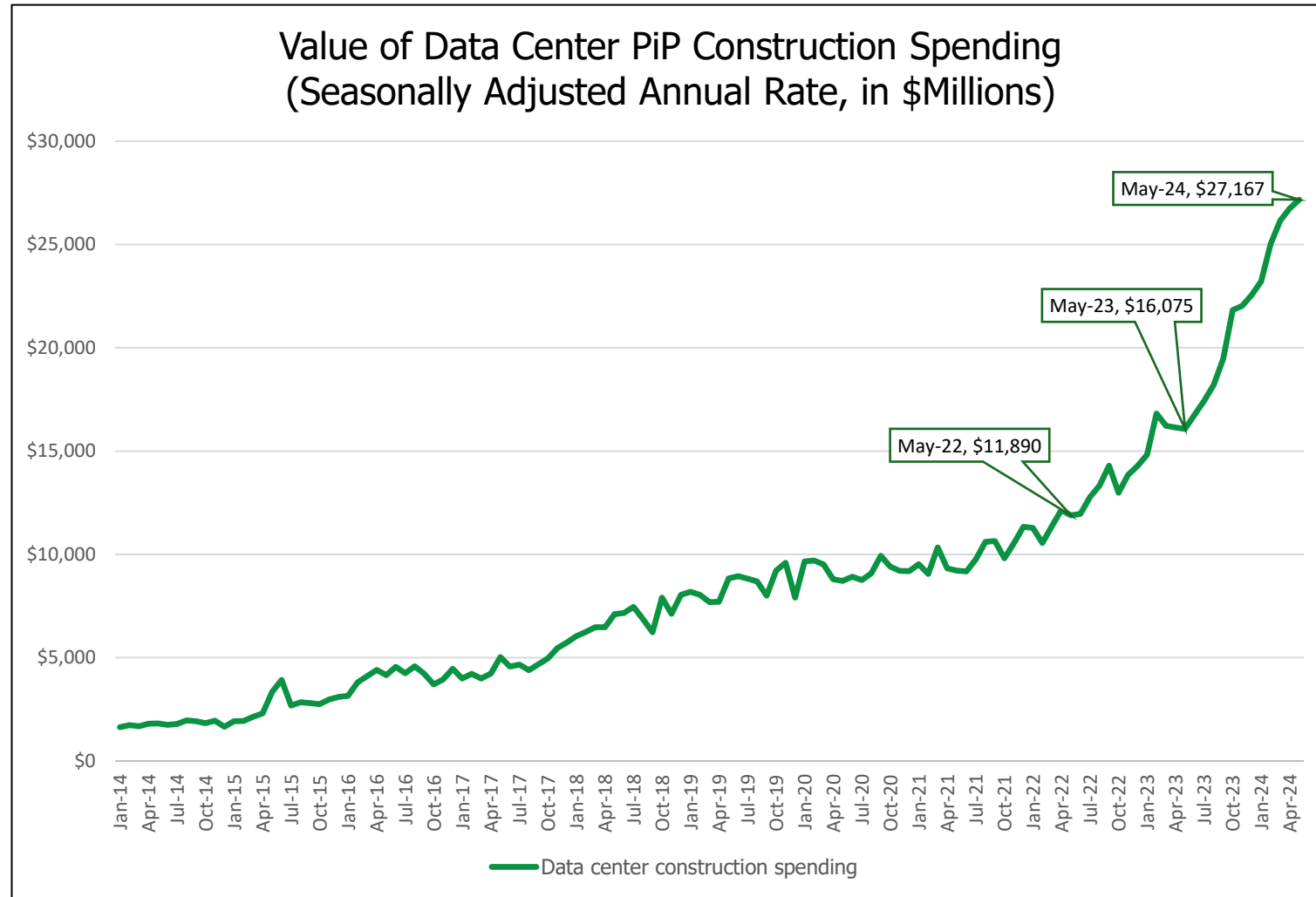
Average Monthly Household Broadband Consumption



New Products/Experiences/Applications Drive Demand

- Cloud
 - 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!

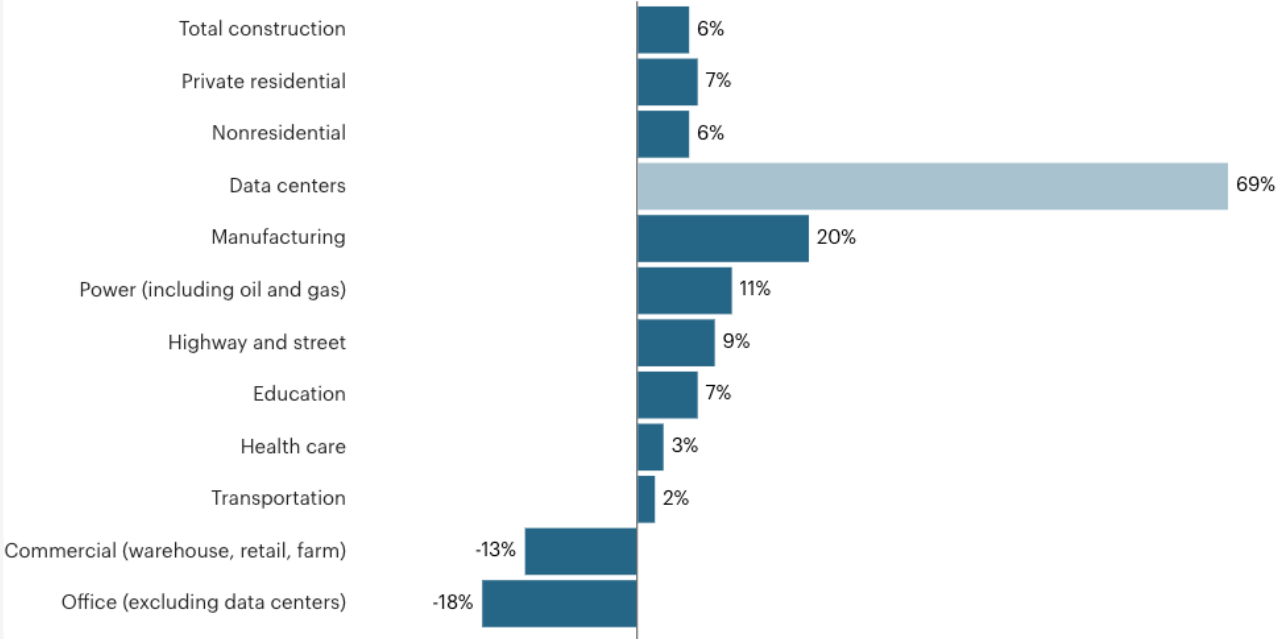
Growth in Data Center Construction Spending



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



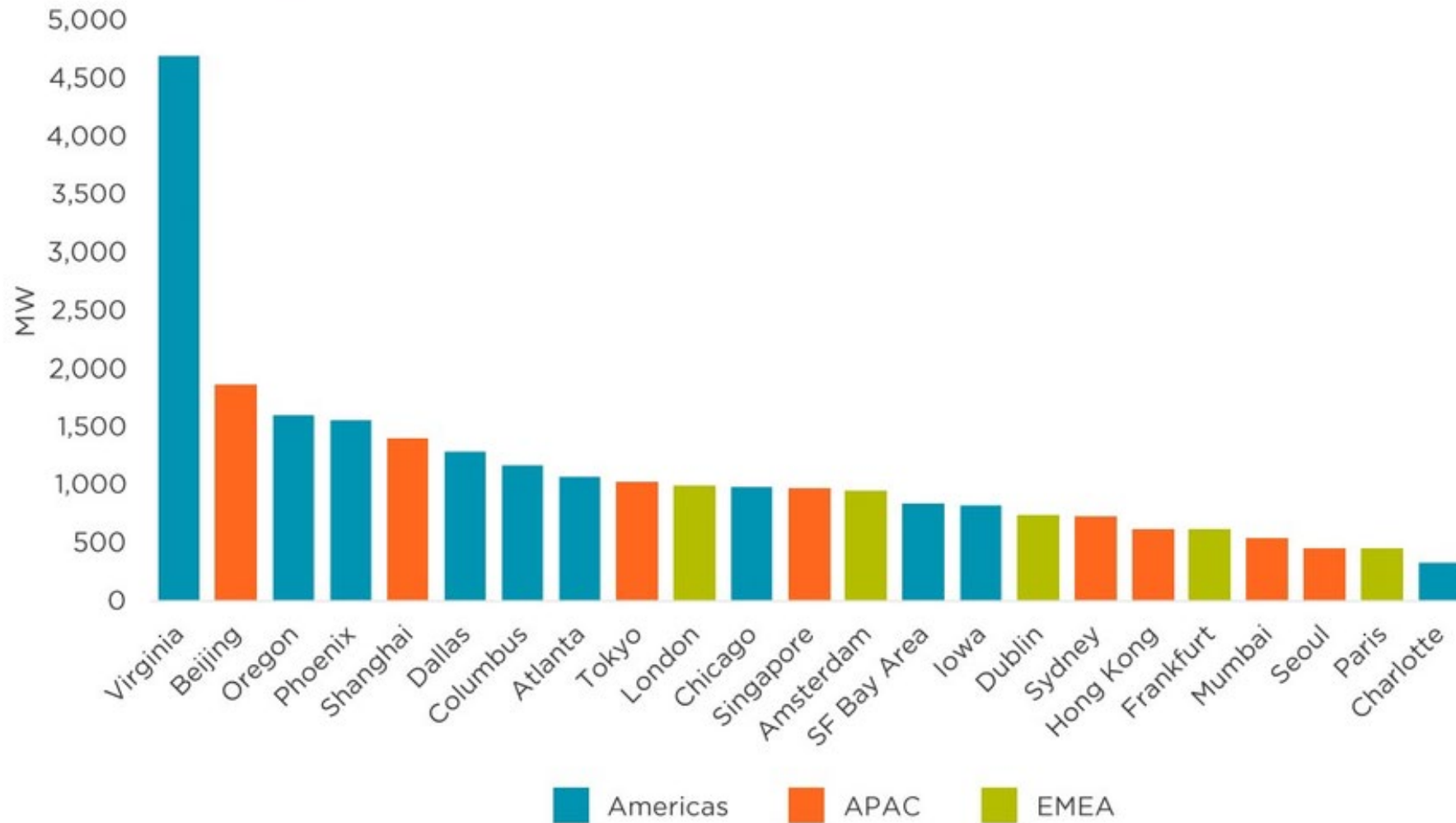
Source: Atlanta Business Chronicle, \$1B data centers adds to growing list of massive projects; offsets construction slowdown, Oct. 4, 2024, <https://www.bizjournals.com/atlanta/news/2024/10/04/1b-data-center-pitched-for-coweta-county.html>

Key Siting Considerations Include

- Access to Fiber/Interconnection
- 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
- Time to Market
- Access to Skilled Construction and Technology Workforce

Global Data Center Markets (By Power Capacity)

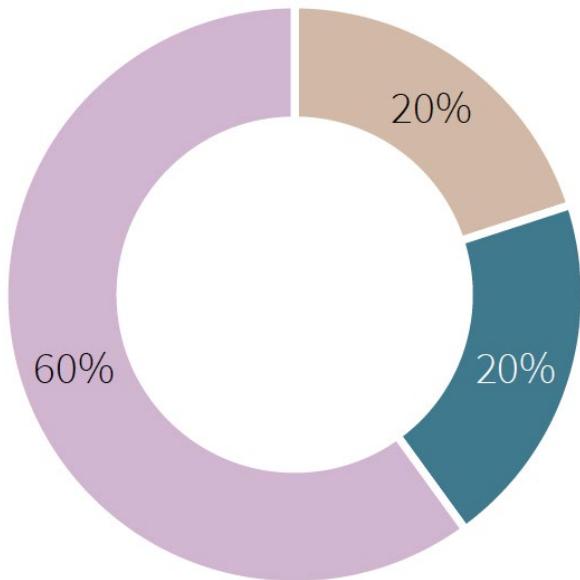
Top Markets by Operational IT Load



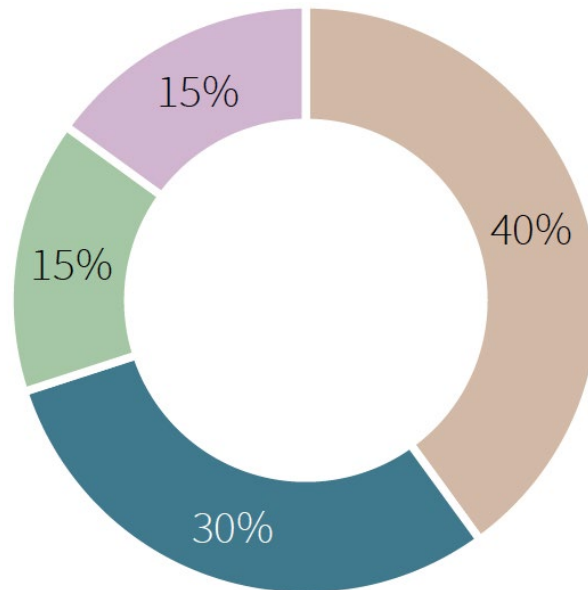
Data Center Trends

User Demand by Industry Across Texas Markets

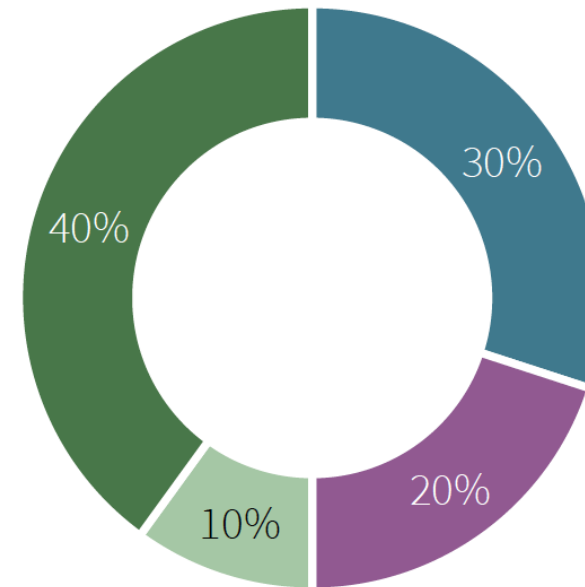
Austin/San Antonio



Dallas-Fort Worth

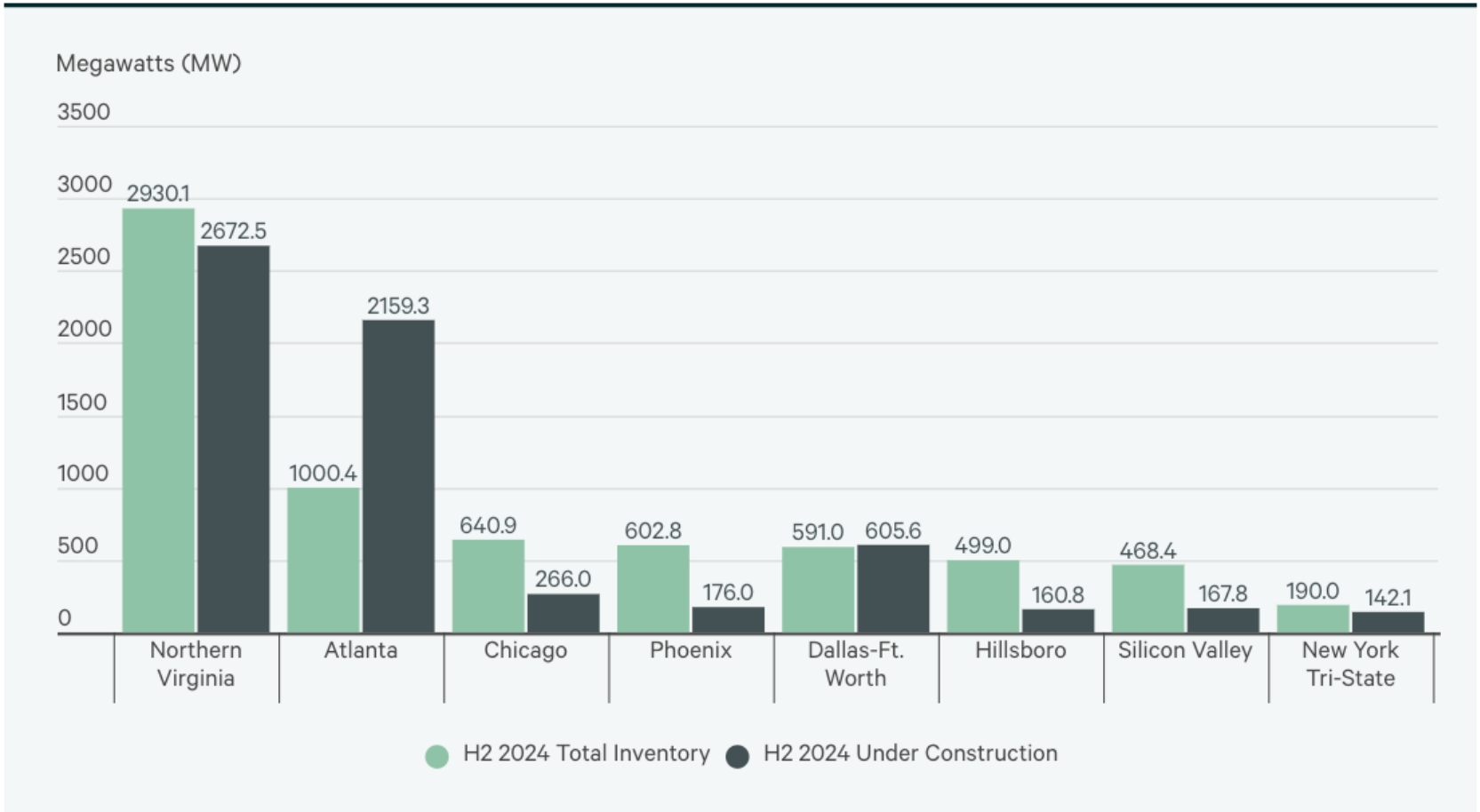


Houston



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Figure 6: Total Inventory vs. Under Construction by Primary Market, H2 2024

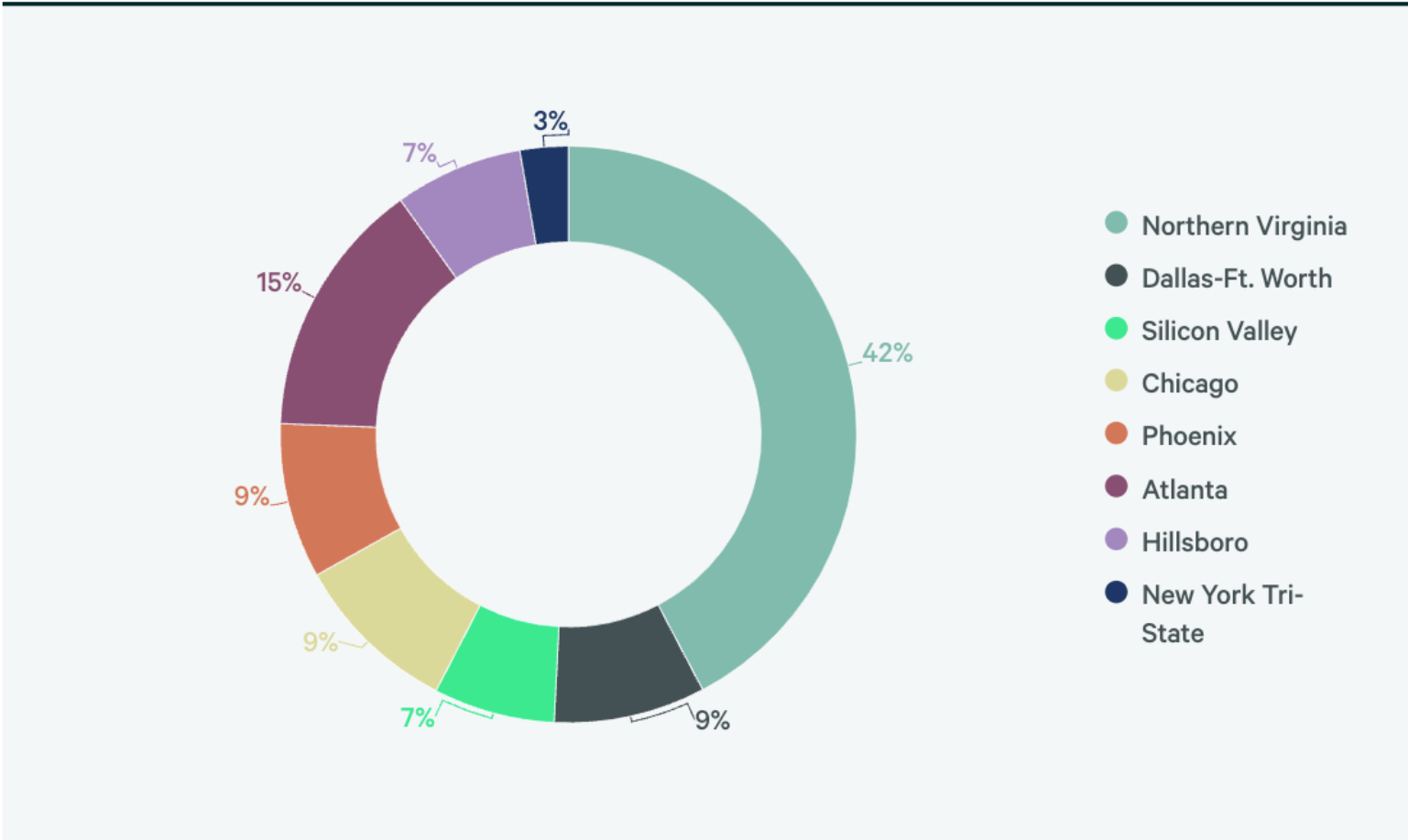


Source: CBRE Research, CBRE Data Center Solutions, H2 2024.



Data Center Trends

Figure 3: % of Total Primary Market Inventory

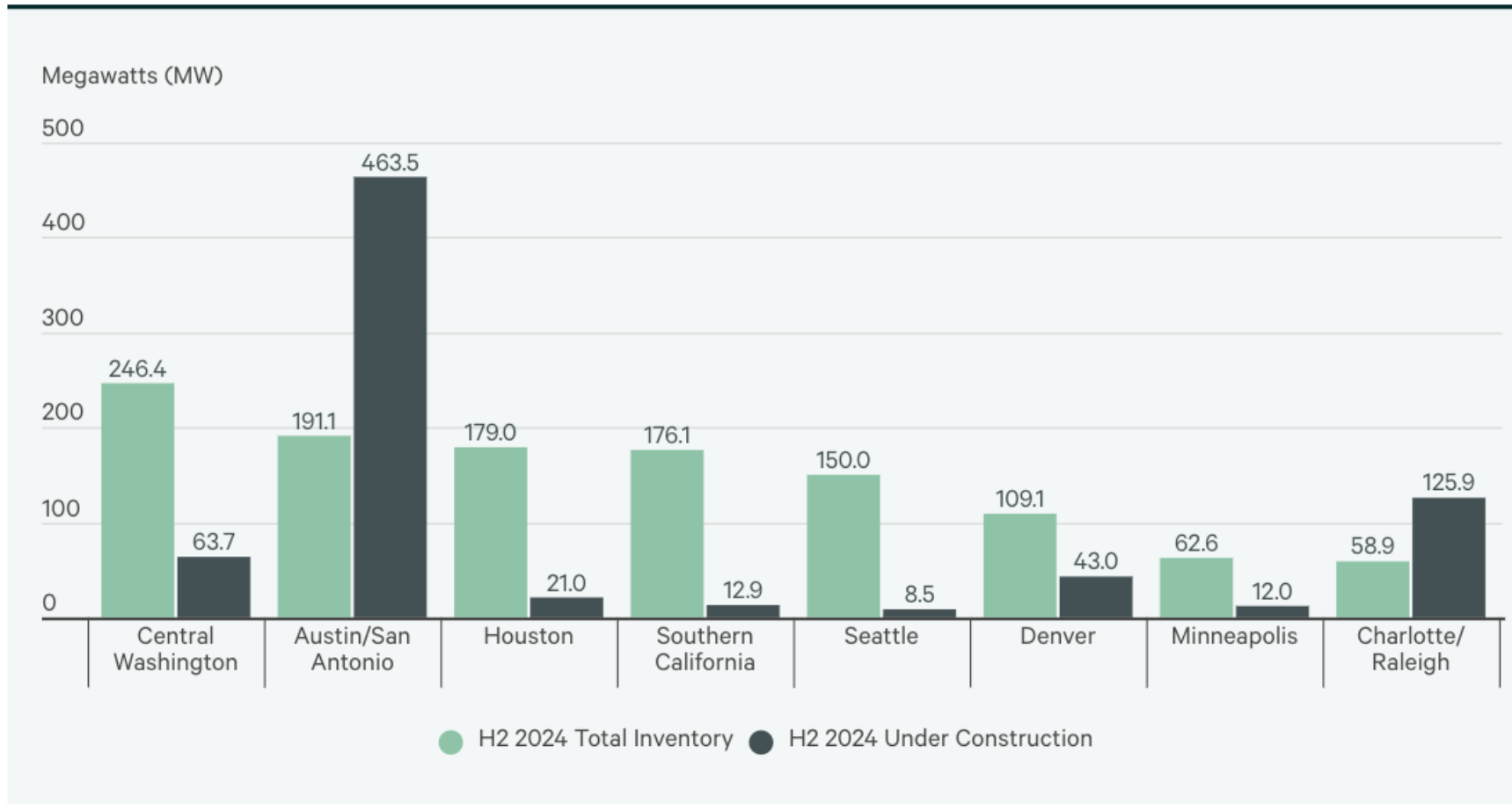


Source: CBRE Research, CBRE Data Center Solutions, H2 2024.



Data Center Trends

Figure 7: Total Inventory vs. Under Construction by Secondary Market, H2 2024

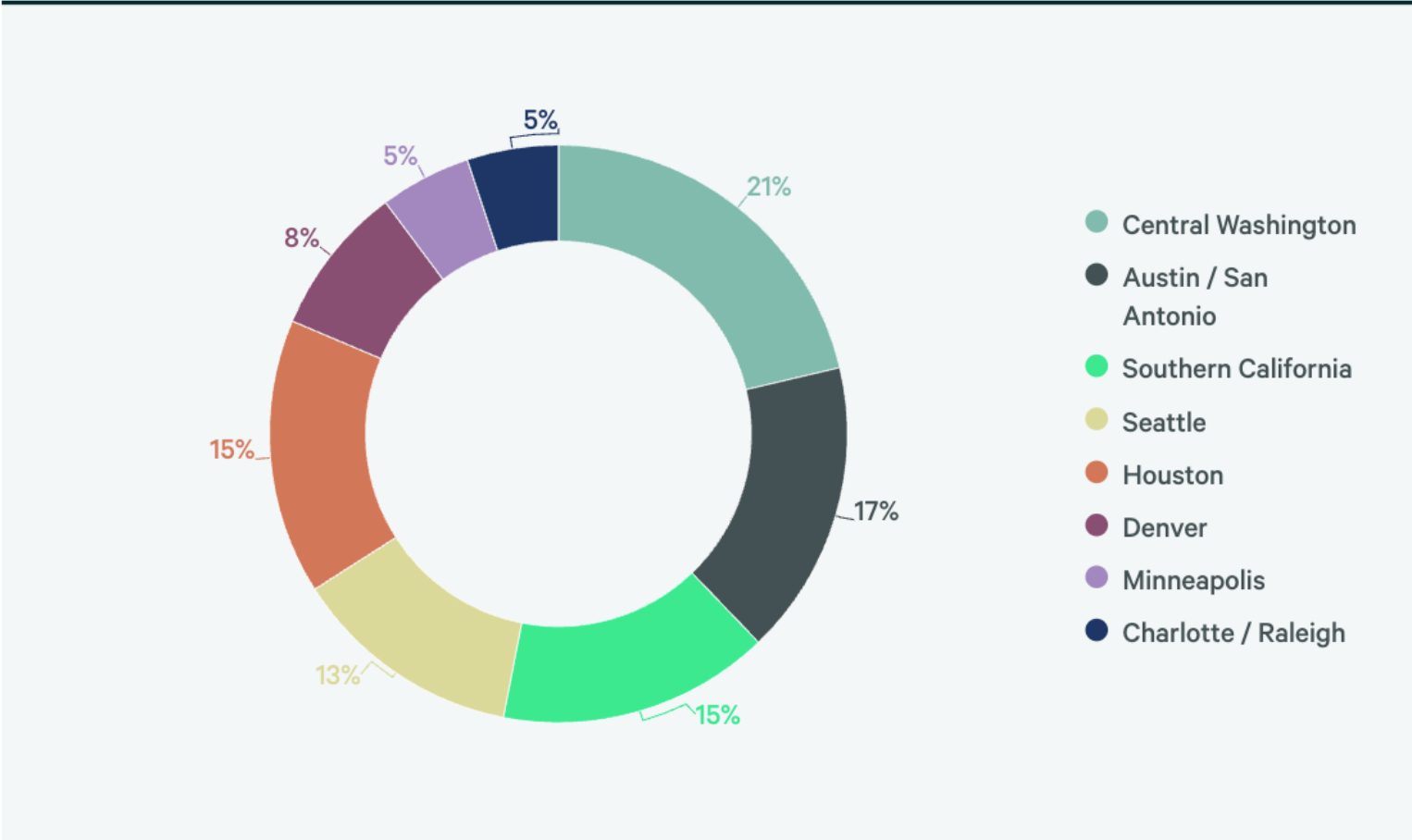


Source: CBRE Research, CBRE Data Center Solutions, H2 2024.



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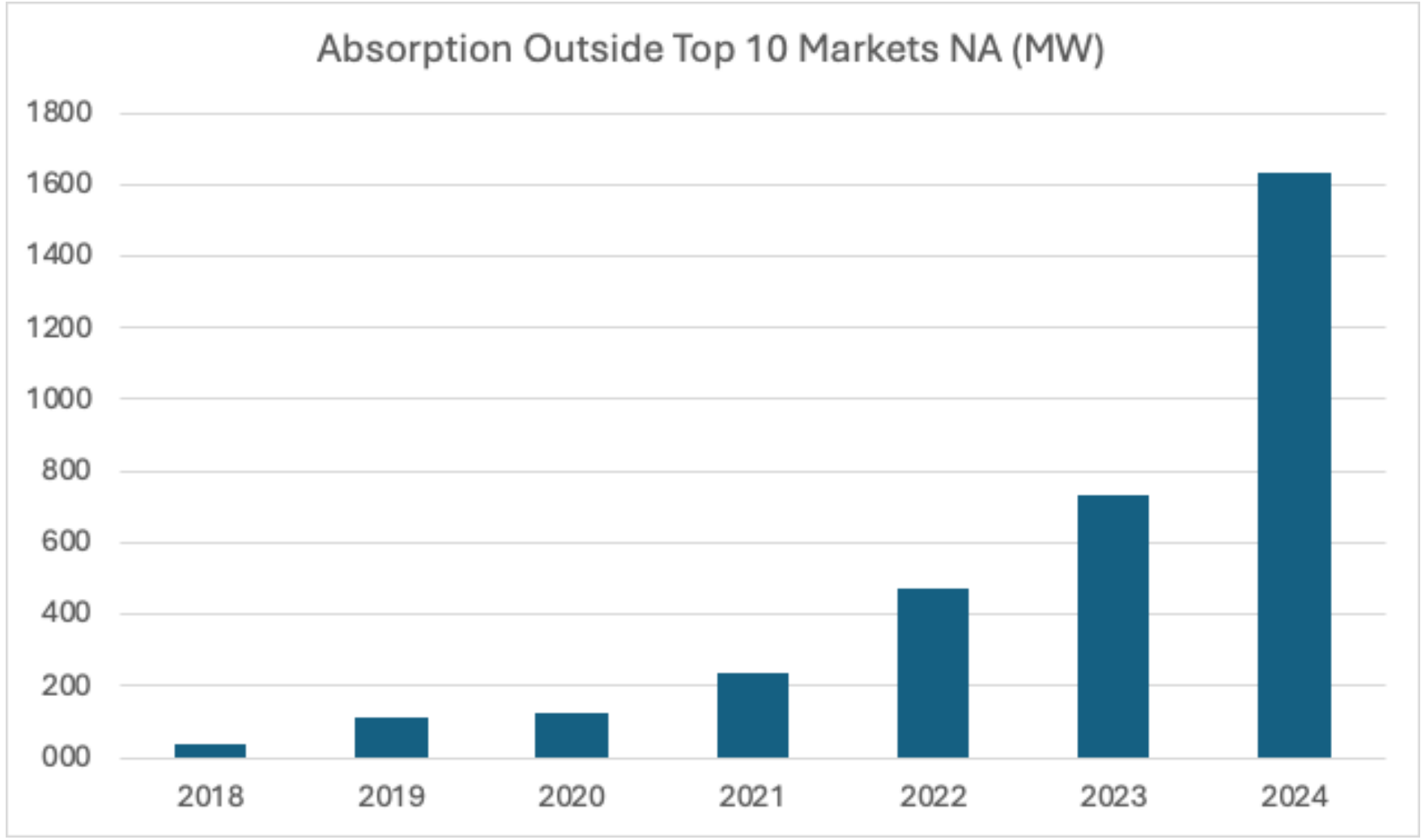
Figure 3: % of Total Secondary Market Inventory



Source: CBRE Research, CBRE Data Center Solutions, H2 2024.



Data Center Trends



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





Questions?

