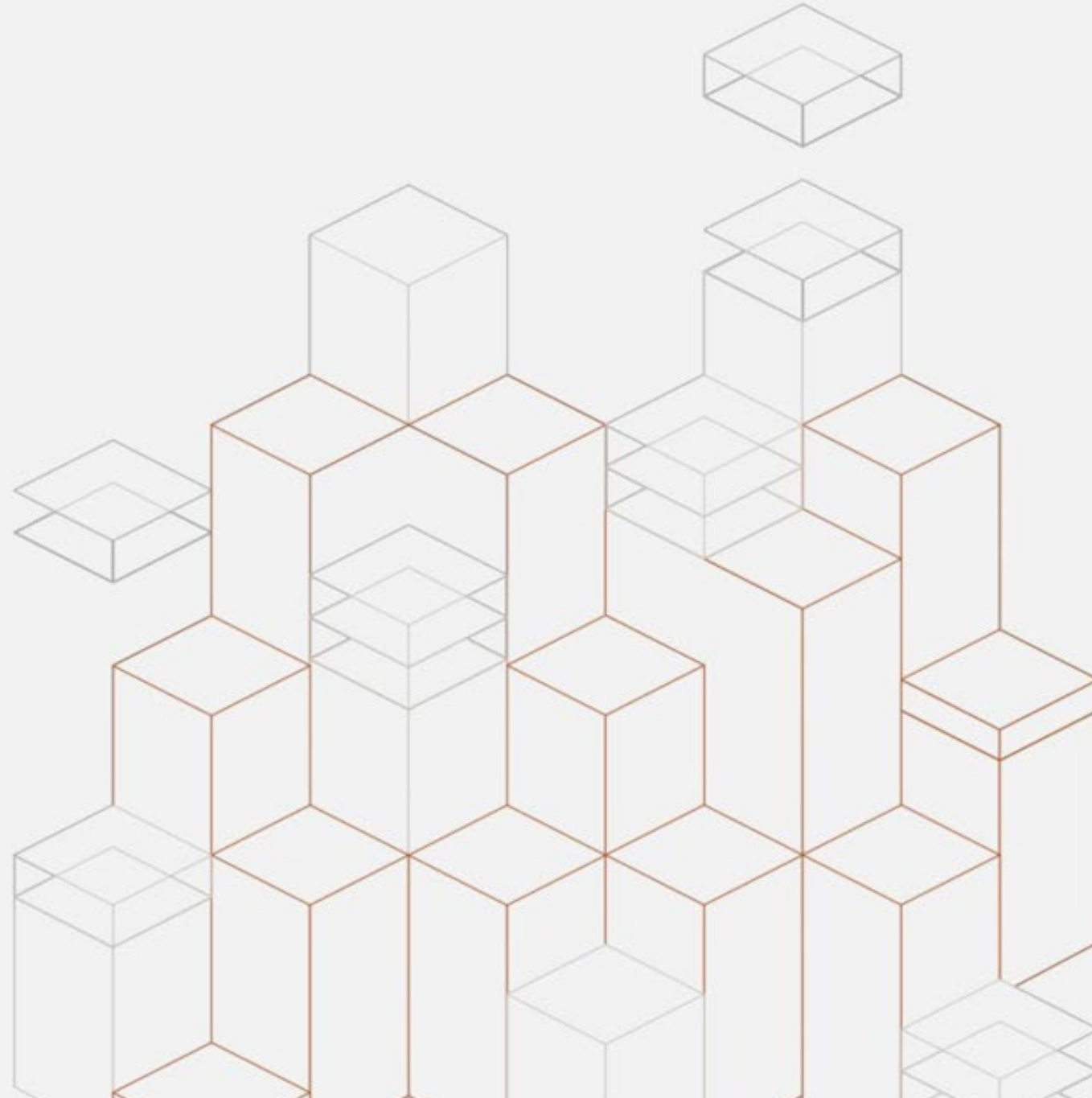


# Data Center Insights from a Contractor Perspective

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November 1, 2024



# GISI Creating solutions for the world's most complex challenges

**\$13b**

Annual  
Revenue

**100**

Countries

**15k+**

Employees



CANADA



UNITED STATES



LATIN  
AMERICA



SOUTH  
AMERICA



UNITED KINGDOM  
/ IRELAND



EUROPE



MIDDLE  
EAST



AFRICA



ASIA / PACIFIC



AUSTRALIA

## GISI PLATFORMS



CONSTRUCTION SERVICES



PROGRAM & PROJECT MANAGEMENT



ENGINEERING CONSULTING



GLOBAL DEVELOPMENT

**#2 Contractor in the US**  
**#8 in Data Centers**

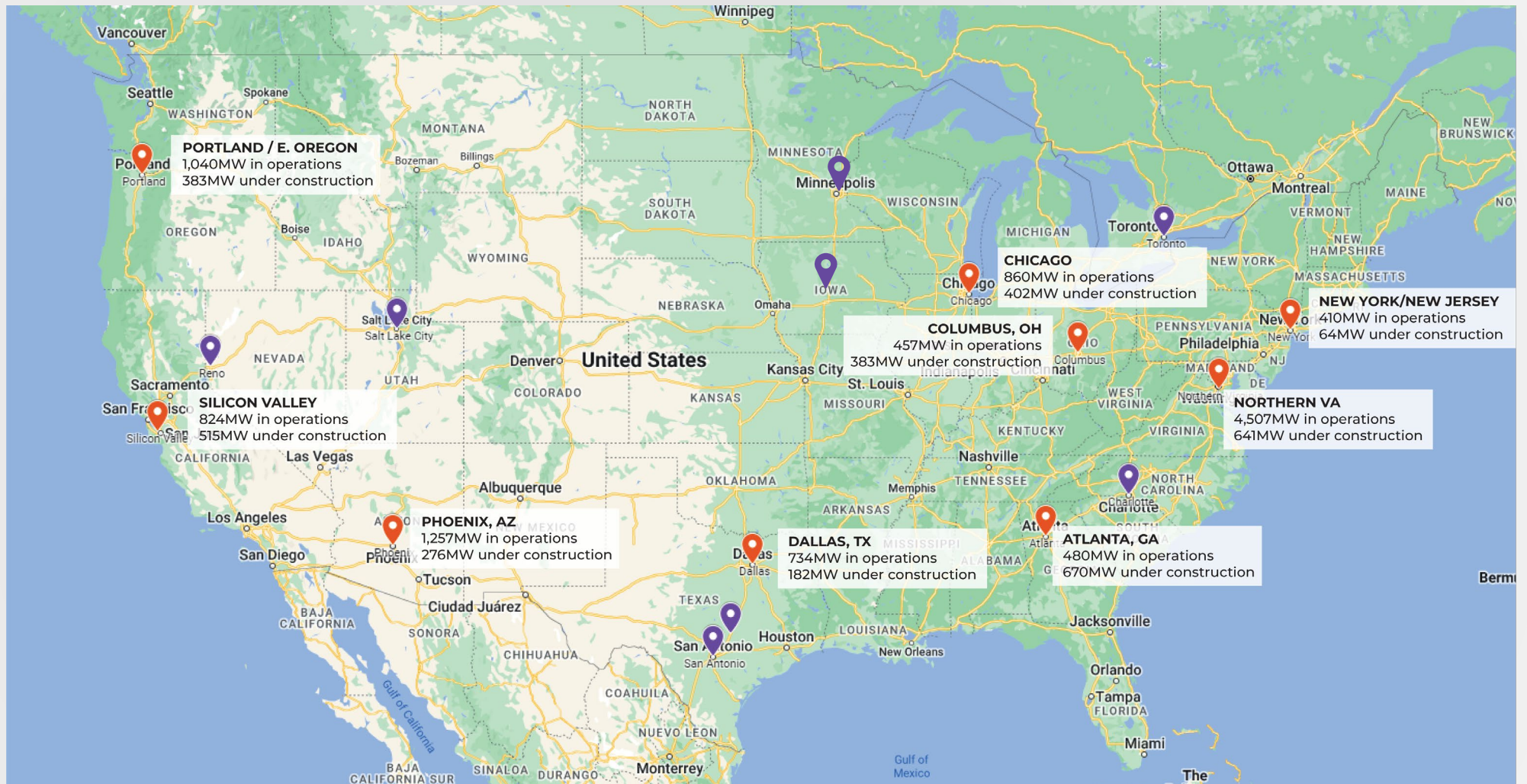
Engineering News Record (ENR) 2024

# GISI An Increasing Demand for Energy

- AI technology is here and rapidly expanding
- Data center power consumption reached **19GW** in 2023, anticipated to increase a further **50GW** by 2030
- The data center construction industry integrates land, power, and cooling infrastructure
- Data centers require 24/7 electricity
- “Speed to power” is critical
- Power supply presents a critical bottleneck and risk



# GISI Key and Secondary Markets for Construction, 2023



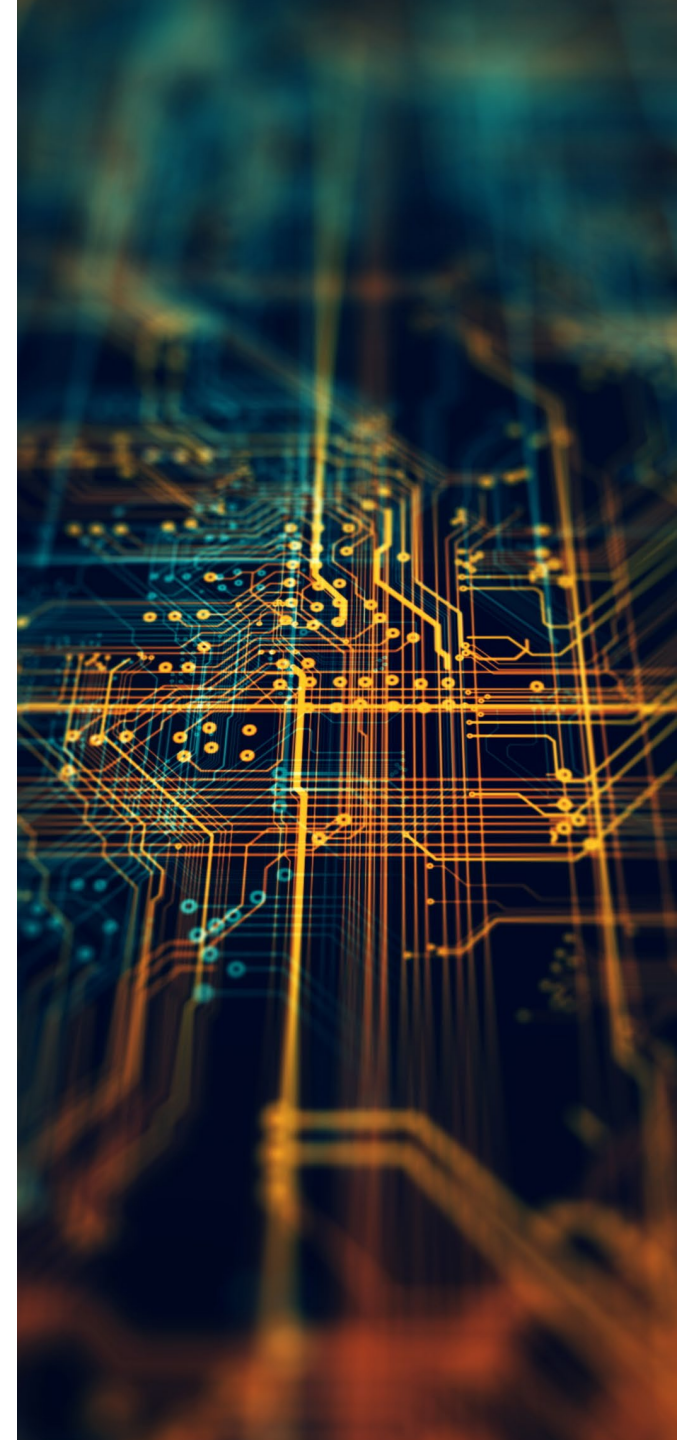
# GISI Possible Solutions for Energy Demand

## Short-Term

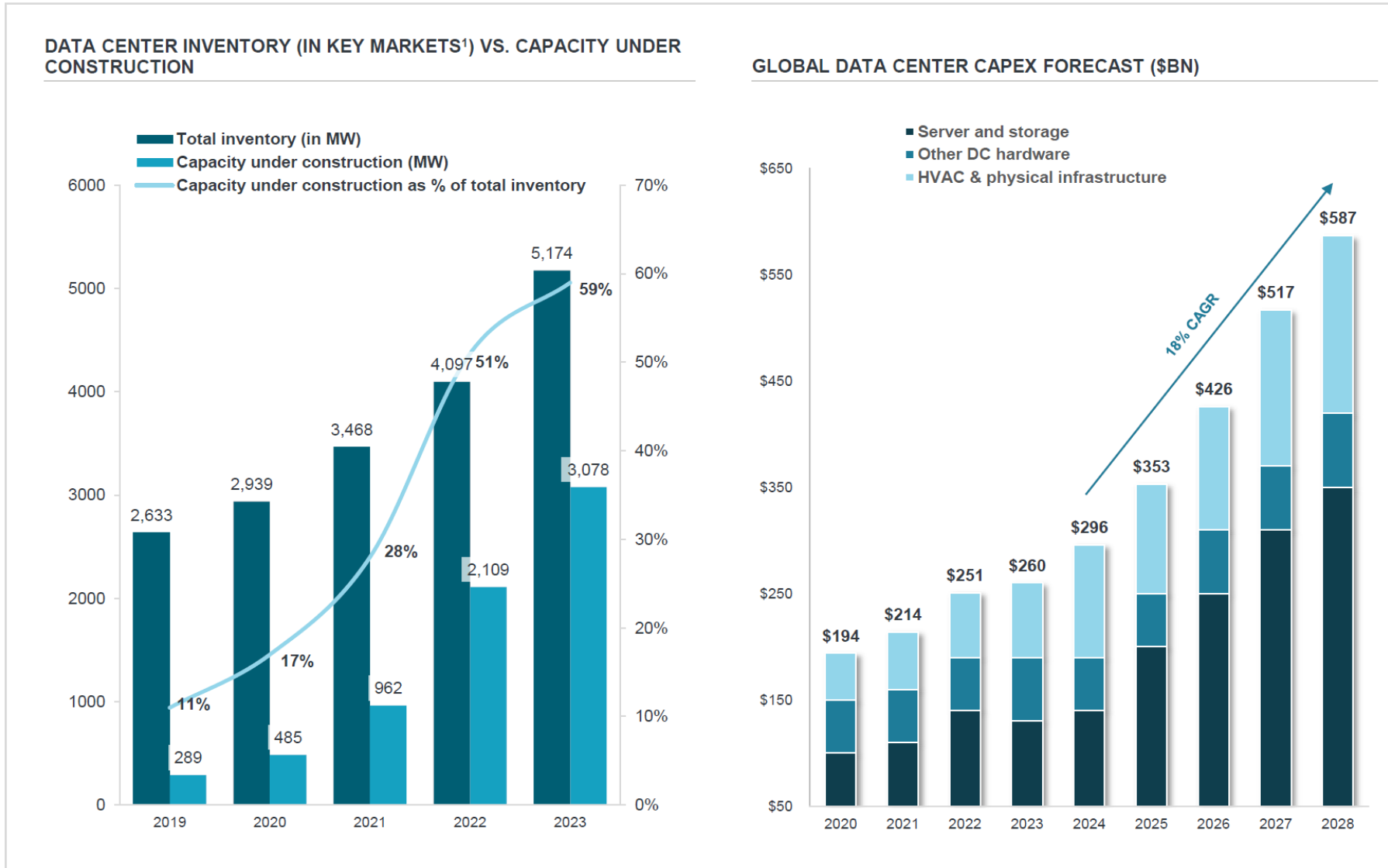
- Move data centers to areas with excess gas generation
- Co-locate data centers adjacent to nuclear and gas generation

## Longer-Term

- Build additional gas generation
- Develop new technology such as small modular reactors (SMRs) and advanced geothermal plants



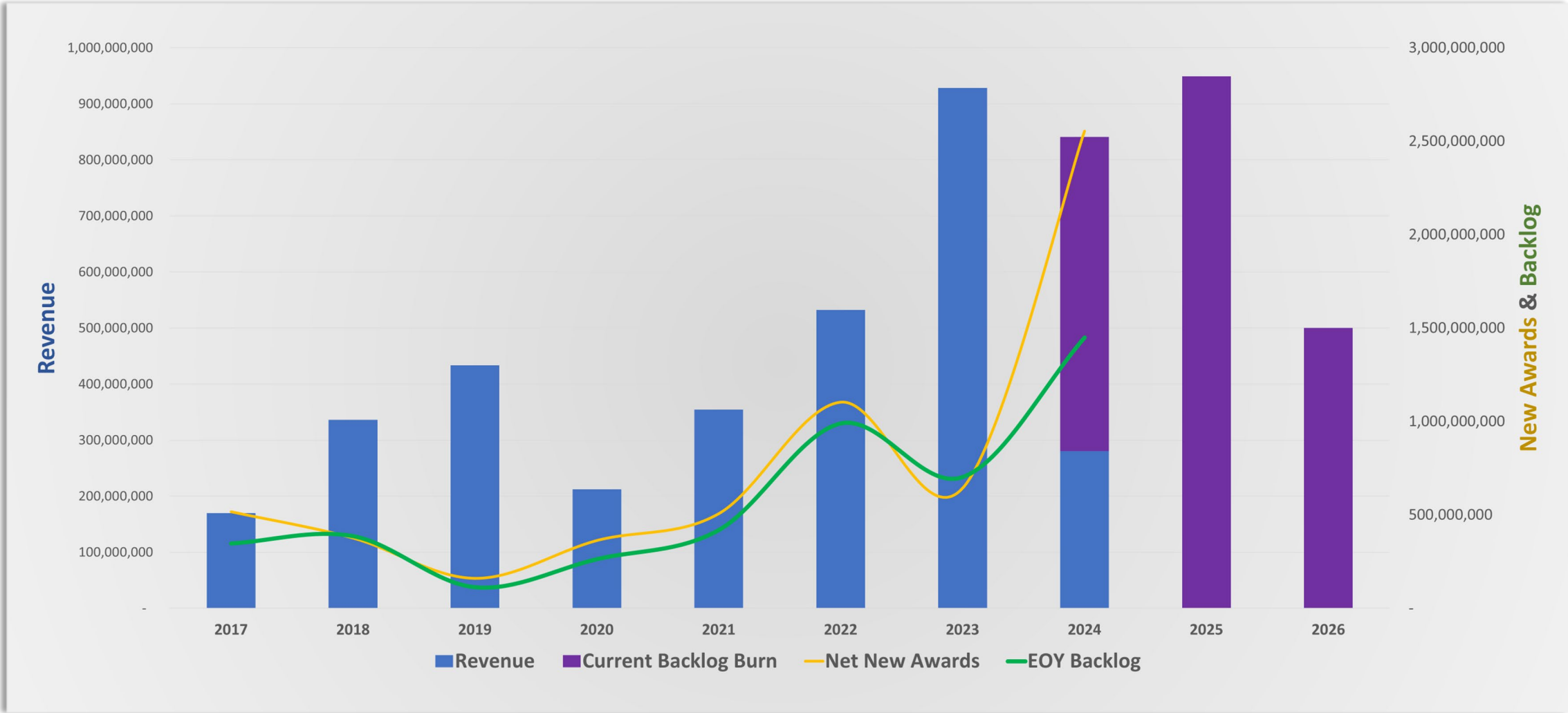
# GISI Significant Increase in Data Center Investment



Source: J.P. Morgan / CBRE, TD Cowen

<sup>1</sup> Only includes Virginia, Dallas, Chicago, Silicon Valley, Phoenix, Atlanta, Hillsboro and NY State

# GISI Construction Trends Reflect Market Demand



GISI Data Center Revenue and Backlog 2017 - 2026+

# GISI New Market Entrants – Investment Firms

Deal flow is exceeding \$20 billion per month in digital infrastructure sector



**Blackstone**

QTS, DIGITAL REALTY



**Brookfield**  
Infrastructure Partners

EVOQUE, COMPASS,  
DIGITAL REALTY TRUST



**Stonepeak**

COLOGIX, CORESITE



**TPG**

QUANTUM LOOPHOLE,  
DIGITAL REALTY



**BlackRock**

CYRUSONE, VANTAGE



**DIGITALBRIDGE**

VANTAGE, DATABANK,  
SWITCH



**GI PARTNERS**

DIGITAL REALTY TRUST



**HARRISON STREET**

1547 REALTY, AREP



**KKR**

CYRUSONE



**IPI**

STACK, T5 DATA CENTERS



**IEQT**

EDGECONNEX



**MACQUARIE**

PRIME DATA CENTERS,  
ALIGNED DATA CENTERS



# GISI Market Challenges – Technology, Power, & Communities

## STOMC Overview

FACILITIES **GROWING**

SINGLE STORY BUILDING 20 – 40 MW

SINGLE BUILDING CAMPUSES

RANGE OF 125 – 175 WATTS PER SQUARE FEET

**FUN FACT:**

20MW ←→ 40MW

1MW = 750 HOMES | 40MW = 30,000 HOMES

3

YEARS AGO



## STOMC Overview

FACILITIES **GROWING**

AVERAGE 40-80MW PER BUILDING (ALMOST DOUBLE)

DENSITIES EXCEEDING 200 WATTS PER SQUARE FEET

MULTISTORY BUILDINGS

CAMPUSES THAT ARE 5-6 BUILDINGS PER CAMPUS

SOME CAMPUSES EXCEED 400MW

**FUN FACT: 80MW = 60,000 HOMES**

40MW ←→ 80MW

1

YEAR  
AGO



AI/ML IMPACT BEING FELT THROUGHOUT THE INDUSTRY

RACE FOR **AVAILABLE POWER** AND LAND IS DRIVING LOCATIONS

NIMBY – NOT IN MY BACKYARD – **COMMUNITY IMPACTS**

## STOMC Overview

FACILITIES **GROWING**

## TODAY AI FACILITIES

300MW ←→ 600MW

AVERAGE 300 to 600 MW PER BUILDING

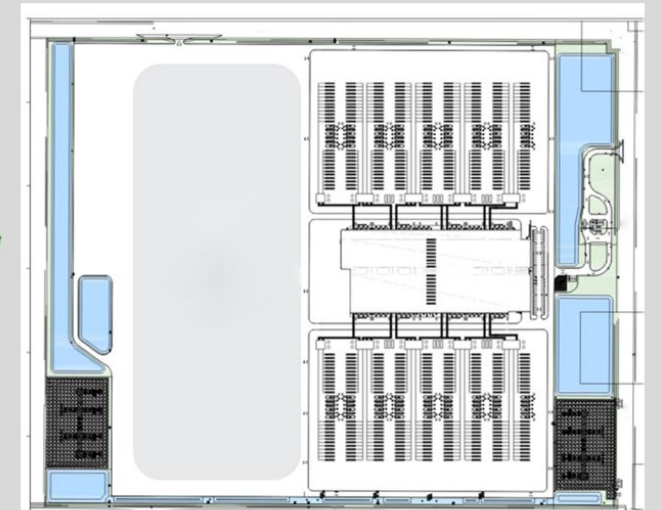
DENSITIES EXCEEDING 400 WATTS PER SQUARE FEET

+350lb PSF FLOOR LOADING

+1.0MSF MULTISTORY BUILDINGS

LARGE SCALE UTILITY YARDS FOR HEAT REJECTION

**FUN FACT: 600MW = 450,000 HOMES**



# GISI Key Takeaways

- Construction is showing same trend as the overall market
- New entrants investing in data center growth are some of the largest financial service companies in the world
- Tenants are the some of the largest market capitalization companies in the world
- Exponential growth of data center industry continues to outpace the available power supply
- No sign of a slowdown in demand



# Q&A

