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$7 Trillion Data Centers Economy

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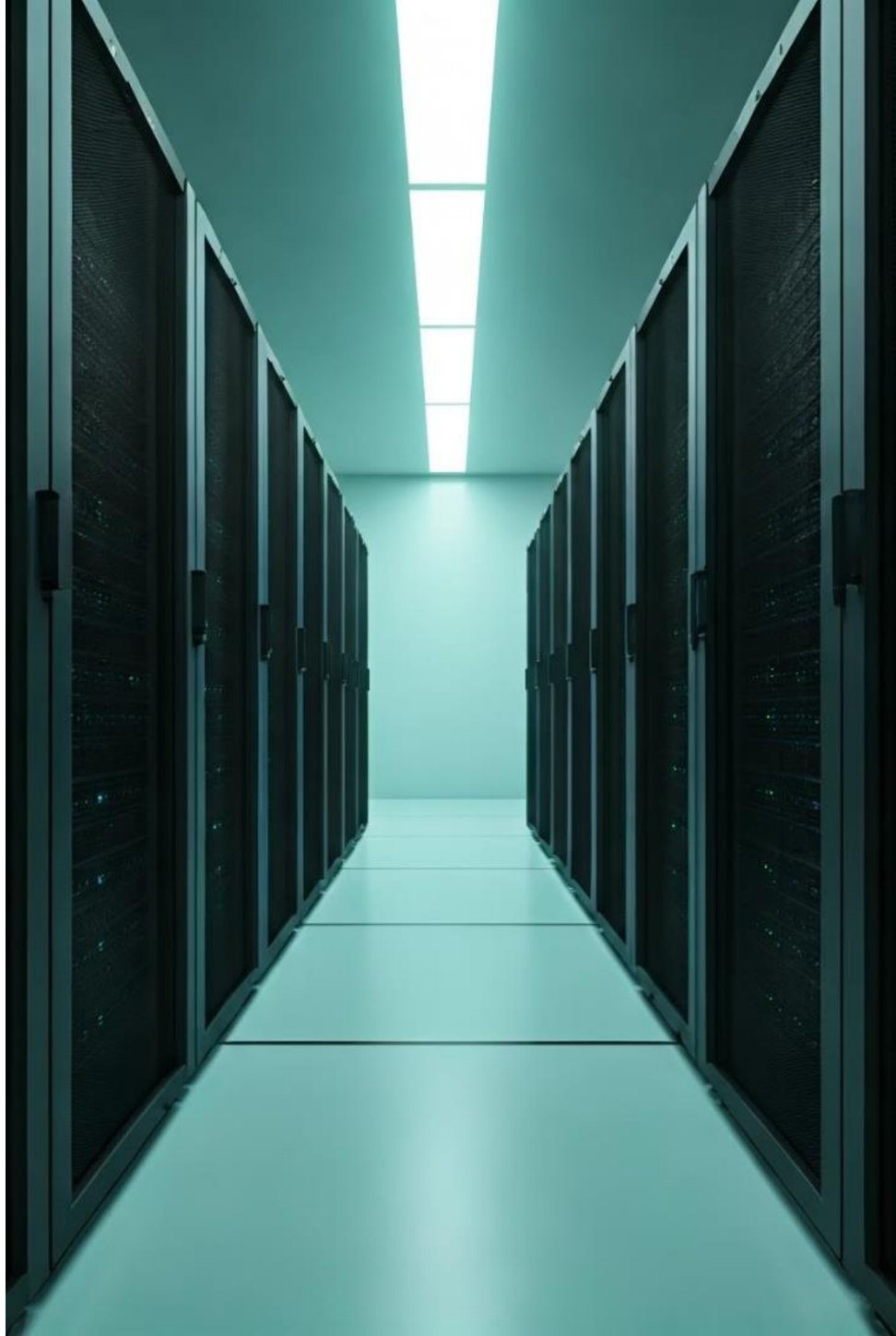
A $7 Trillion Data Centers Economy

AI is fueling a high demand for computing power. Companies are investing billions in infrastructure, but future demand remains uncertain.

By 2030, data centers will require $6.7 trillion worldwide to keep pace with computing power demand.



The Scale of AI Investment

$5.2T

AI Data Centers

Capital expenditures needed by 2030

$1.5T

Traditional IT

Capital expenditures for non-AI workloads

156GW

Capacity

AI-related data center capacity by 2030

What's Driving Demand?

Mass Adoption of Gen AI

Foundation models require significant compute power to train and operate.

Enterprise Integration

AI applications across industries demand massive cloud computing power.

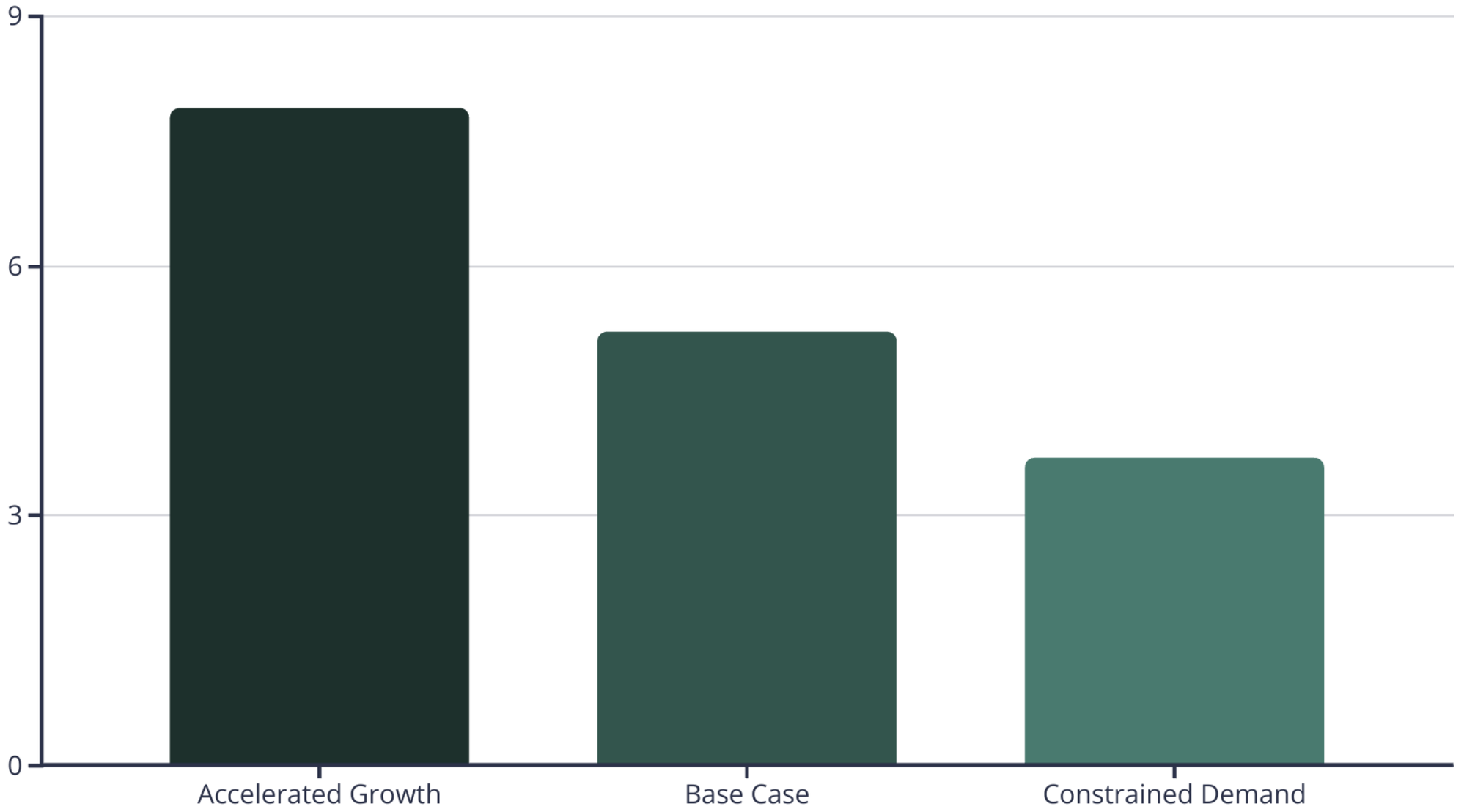
Competitive Infrastructure Race

Companies race to build proprietary AI capacity for competitive advantage.

Geopolitical Priorities

Governments invest in AI infrastructure for security and economic leadership.

Three Investment Scenarios

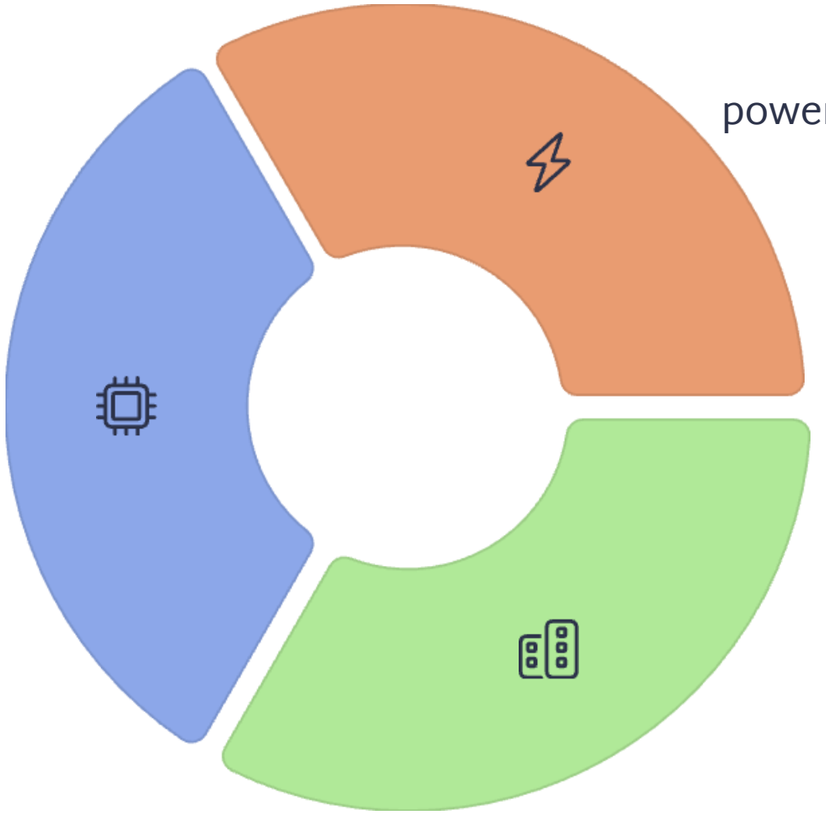


The scale of investment varies widely based on demand scenarios. Even in the most conservative case, trillions of dollars are needed.

Where Is The Investment Going?

Energizers

25% ($1.3T) for
power generation and transmission



Technology Developers

60% ($3.1T) for
chips and computing hardware

Builders

15% ($0.8T) for
land, materials, and site development

Five Types of Data Center Investors

Builders

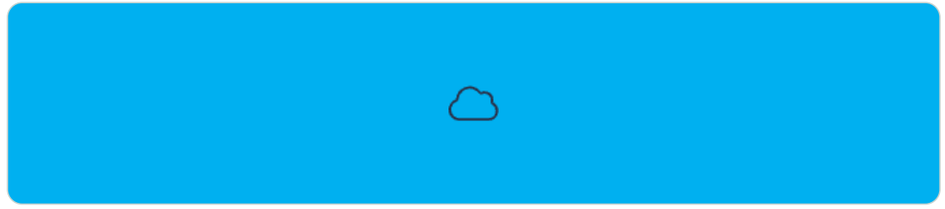
Real estate developers and construction companies

Energizers

Utilities and cooling/electrical equipment manufacturers

Technology Developers

Semiconductor firms and IT suppliers



Operators

Hyperscalers and colocation providers

AI Architects

AI model developers and foundation model providers

Challenges Across the Value Chain

Builders

- Labor shortages
- Location constraints
- Increased rack power density

Energizers

- Grid weaknesses
- Heat management
- Clean-energy transition

Technology Developers

- Market supply control
- Insufficient capacity
- Unpredictable demand

Critical Uncertainties

Technological Disruptions

Breakthroughs in model architectures could reduce hardware and energy demand.

Supply Chain Constraints

Labor shortages and bottlenecks could delay grid connections and chip availability.

Geopolitical Tensions

Tariffs and export controls introduce uncertainty in compute power demand.

Winning the AI Computing Race

Understand Demand

Assess AI computing needs early and anticipate potential shifts.

Innovate on Efficiency

Prioritize cost- and energy-efficient computing technologies.

Build Resilience

Secure critical inputs and optimize site selection.

The winners will be companies that anticipate compute power demand and invest accordingly, balancing growth with capital efficiency.

THANK YOU

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