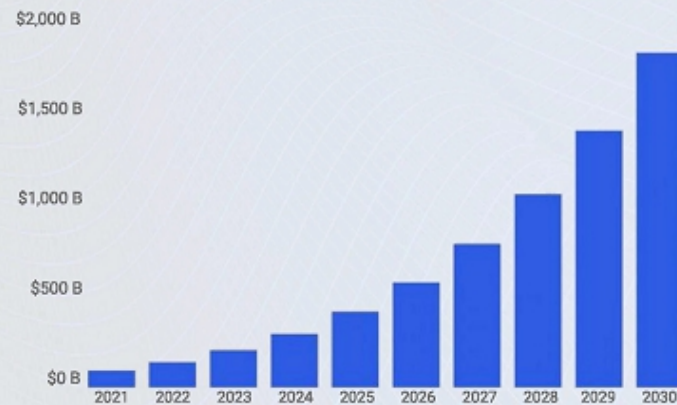**APPLIED DIGITAL**

FIRST MOVER ADVANTAGE:

BUILDING OUT THE DIGITAL INFRASTRUCTURE ECOSYSTEM TO ENABLE AI

Powering Hyperscalers, Enterprises, and Startups

AI's Exponential Growth and Its Ripple Effects

AI Market Growth Projections

Source: Precedence Research 2024

Lead Time of Major Data Center Critical Equipment

Months

■ 2019 ■ 2023

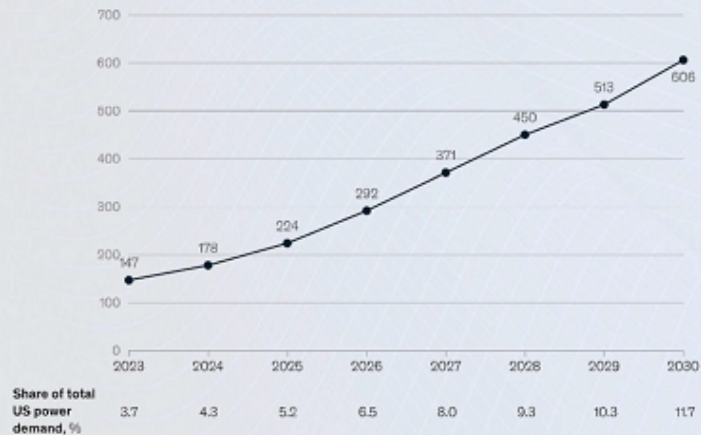| Equipment	2019	2023
Generators	6-10	10-16
Uninterruptible Power Supply	6-10	16-20
Medium-Voltage Transformer	4-6	18-24
Medium-Voltage Switchgear	3-5	8-12
Power Distribution Unit	2-3	8-10

Source: McKinsey & Company, "How Data Centers and the Energy Sector Can Sate AI's Hunger for Power," September 17, 2024.

Infrastructure Pressure

Demand for Power for Data Center is Expected to Rise

Terawatt-hours (TWh) of electricity demand, medium scenario

US data center energy consumption, TWh

Year	2023	2024	2025	2026	2027	2028	2029	2030
Consumption (TWh)	147	178	224	292	371	450	513	606
Share of total US power demand, %	3.7	4.3	5.2	6.5	8.0	9.3	10.3	11.7

Source: McKinsey & Company, "How Data Centers and the Energy Sector Can Sate AI's Hunger for Power," September 17, 2024.

Key Industry Challenges

Soaring Computational Needs:

AI models require exponentially increasing processing power

Scalability Limitations:

Traditional data centers can't scale rapidly enough due to physical constraints like space and power supply.

Energy Consumption:

Need for efficient and sustainable power solutions.
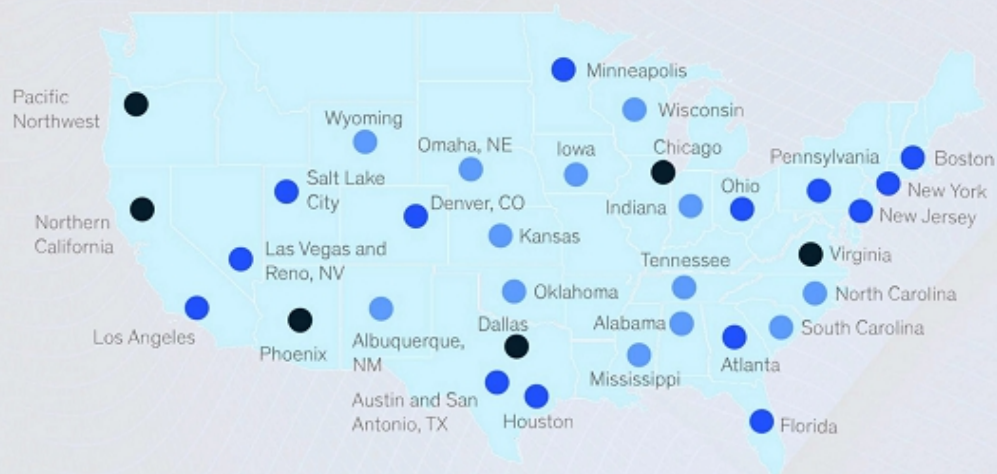
Performance Bottlenecks:

Existing infrastructure struggles to handle the massive data volumes of AI applications, leading to delays and reduced performance

US Data Center Growth & Infrastructure Projections

	Previously	Today though 2030 (projection)
US Data Center Growth	25GW	80GW (note: increase in 50MW power requires ~$500B investment)
Total US power Demand by DCs	3-4%	11-12%
Compute: Time to double CPU performance	2 Years	2 Years
Density: Kw per	10kw/rack	120+ kw/rack
Talent: Shortage of specialty trade labor	0	400k+ Workers
NOVA: lead time to power new DC	0	3+ Years
NOVA: Lead time for electrical equipment	0	2+ years
Power Providers: DC callout in Earnings	3	21

Hyperscalers Look For a New Market

Scaling Constraints

Demand | Power

Land | Cooling

Supply Chain | Regulation

Map labels: Pacific Northwest, Northern California, Los Angeles, Wyoming, Salt Lake City, Las Vegas and Reno, NV, Phoenix, Albuquerque, NM, Denver, CO, Omaha, NE, Kansas, Dallas, Austin and San Antonio, TX, Houston, Minneapolis, Iowa, Wisconsin, Chicago, Indiana, Ohio, Oklahoma, Tennessee, Alabama, Mississippi, Atlanta, North Carolina, South Carolina, Florida, Virginia, Pennsylvania, New York, New Jersey, Boston

Three tiers of US energy Markets

● **Primary markets**
Large existing demand of more than ~800MW

● **Secondary markets**
Relatively smaller demand but typically high growth

● **Emerging markets**
Recent hyperscale activity because of cheap and sustainable or cleaner power, with negligible co-location presence

Source: McKinsey & Company, "How Data Centers and the Energy Sector Can Sate AI's Hunger for Power," September 17, 2024.

The North Dakota Advantage

Abundant Energy ✓

North Dakota's excess energy supply supports our operational stability and growth.

Low Build and Operational Cost ✓

Competitive energy costs lower our operational expenses, maximizing profitability

Favorable Climate ✓

North Dakota's cold weather offers natural cooling benefits for our data centers.

Economic Incentives ✓

State incentives reduce initial capital expenditure and ongoing operational costs.

First Mover Advantage ✓

Locked in energy prior to the AI movement, ensuring ample resources amidst rising demand

These aligned factors collectively enable the successful development of the Ellendale AI Data Center

From Dirt to Compute

POWER

Critical IT Capacity - 100MW
- Access to Wind Energy

TYPICAL BUILDING

- Three story building
- 369,000 GSF building
- 1st floor – Central Utilities
- 2nd & 3rd floors – Data Halls
- 2 Data Halls – 50MW IT Load Each

TECHNICAL DETAILS

- Peak rack load of 120kW/rack
- Cooling mediums for servers – Direct Liquid to Chip Cooling and Air Cooling
- Peak PUE of 1.3 annual average of 1.2
- Designed to provide higher levels of availability in accordance with industry standards

Accelerated Computing Infrastructure for AI at Scale
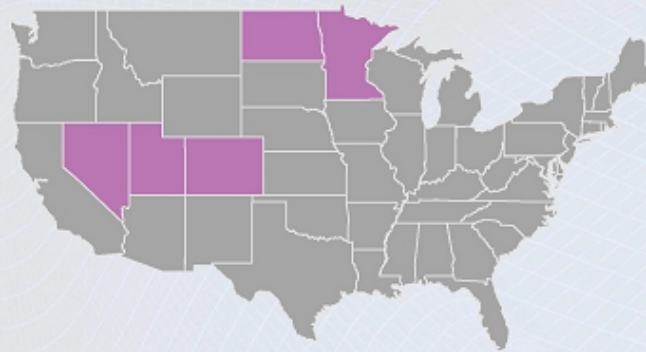
Applied Digital Deployment Footprint

Region	Total Power	Status
North Dakota, ELN*	400MWs	In Construction
Utah**	12.5MWs	Operational
North Dakota, JMS	7.5MWs	Operational
Colorado**	4.5MWs	Operational
Nevada**	2.25MWs	Operational
Minnesota**	1.5MWs	Operational

RESERVED

ACCESS TO LATEST GPUS

To Support High-performance Computing Needs.

OVER

60,000 GPUS

Anticipated To Be Deployed Across Our Data Centers In Calendar Year 2025

BUILDING

400MW CAMPUS

That Could Host Some of The Largest Supercomputers In The World.

OVER

1.4+ GIGAWATTS

Of Available Sites In Our Power Pipeline***

* North Dakota Ellendale AI Data Center is anticipated to be operational in 2025
* *Third party colocation sites
* **Consisting of three additional campuses that the Company is currently marketing

THANK YOU

FOR YOUR TIME