DATA CENTERS

What are they and who cares?

DECEMBER 2025

EXTERNAL AFFAIRS

NICK PHILLIPS

EVP OF EXTERNAL AFFAIRS, APPLIED DIGITAL

- Proud husband and father of three
- Licensed pilot who enjoys flying planes
- Started in data centers in 2005, building traditional infrastructure
- Transitioned to public affairs in 2013, focusing on community relations
- Returned to the data center industry in 2017, seeking a deeper impact
- Joined Applied Digital to combine public affairs and data center development, focused on helping underdeveloped communities

APPLIED DIGITAL

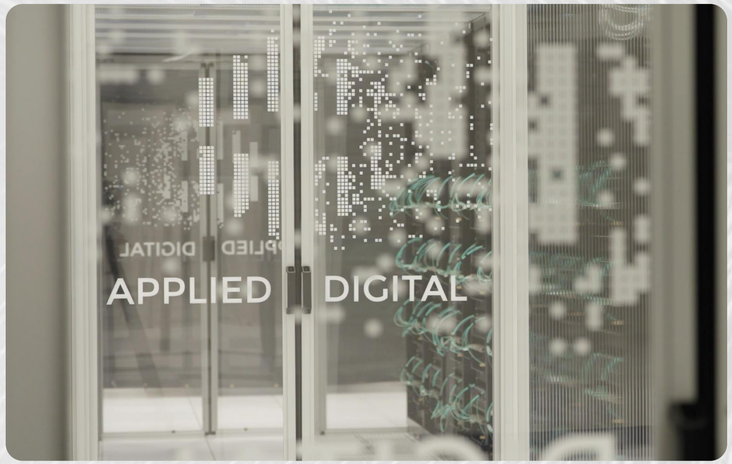
DESIGN

BLOCKCHAIN DATA CENTERS

Provide hosting solutions to blockchain infrastructure companies

BUILD

GPU-AS-A-SERVICE



Rent AI/ML access to GPUs at scale to train and run applications

OPERATE

ARTIFICIAL INTELLIGENCE FACTORIES

Provide hosting infrastructure for hyperscale deployments of AI through a purpose-built campus

APPLIED DIGITAL

COMPANY TIMELINE

2021

GENESIS

Launched 100 MW Blockchain Data Center north of Jamestown, ND

2022

BLOCKCHAIN

Fully operational in Jamestown ND

Launched **180 MW Blockchain Data Center** in Ellendale, ND

Launched 200 MW Blockchain Data Center in TX

Completed IPO and uplisted to Nasdaq

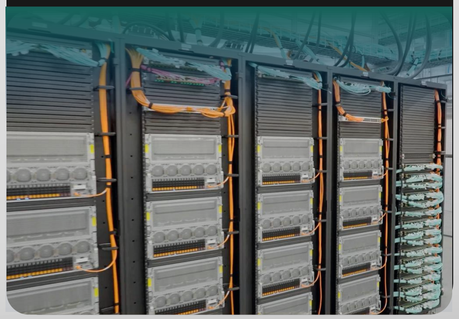
2023

STRATEGIC SHIFT TO HIGH PERFORMANCE COMPUTING

Launched Cloud Business

9MW HPC Data Center In Jamestown, ND

Launched 130MW Ellendale, ND AI Factory



2024

POSITIONING FOR GROWTH

Sold 200 MW Garden City Location In Texas to reinvest in ND

Continued building Ellendale, ND, now 530MW

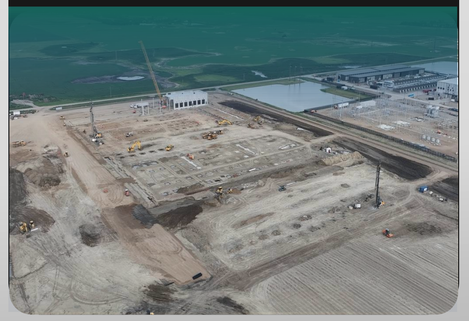
2025

NORTH DAKOTA EXPANSION

Macquarie Asset Management Transaction to build over 2GW of AI Factories

Signed leases with CoreWeave for 3 AI Factories

Launched 280 MW Harwood, ND AI Factory



NORTH DAKOTA OPERATIONS

JAMESTOWN

Employment: 40

APLD Investment: $82M

Estimated Customer Investment: $500M

Land: 40 acres

Use: Blockchain, AI – 109MW

Started: 2021

ELLENDALE

Employment: 75 now, 300 – 350 when fully operational

APLD Investment: $5B

Estimated Customer Investment: $7.5 - $15B

Land: 320 acres

Use: Blockchain, AI – 530MW

Started: 2022

HARWOOD

Employment: 200 – 250 when fully operational

APLD Investment: $3B

Estimated Customer Investment: $4.5 - $9B

Land: 160 acres in larger 925 acres available

Use: AI – 280MW

Starting: 2025

A **Data Center** is a purpose-built facility that houses rows of servers and networking equipment to support various technologies from hosting websites, to streaming video, making phone calls, and much, much more.

THREE TYPES OF DATA CENTERS

Traditional

Blockchain

AI Factory

TRADITIONAL

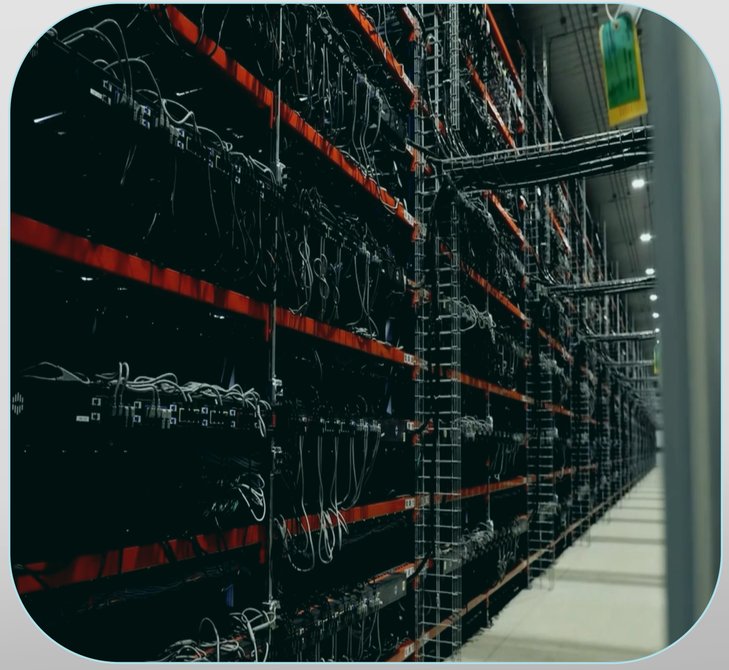
A “**Traditional” Data Center** is a purpose-built facility that houses rows of servers and networking equipment to support internet, telecom, banking, and other technology Infrastructures. These exist in many mid to large sized cities around the US.

Feature	Traditional Data Center
Primary Use	Cloud storage, website hosting, remote computing, streaming video, telecommunications, video game
Cooling System	Primarily Air-cooled
Power per Rack	3–40 kW – average today 7.5kW
Networking	High bandwidth, low latency
Location	Near large populations of end users from a network perspective
Size	From a few thousand square feet to hundreds of thousands of square feet
Employment	Low to medium employment numbers, some facilities operate as lights-out
Capital Requirements	Low millions to possibly hundreds of millions

BLOCKCHAIN

A **Blockchain Data Center** is purpose built to host highly-specialized equipment (ASIC or GPU) to process transactions on the blockchain network(s) they support.

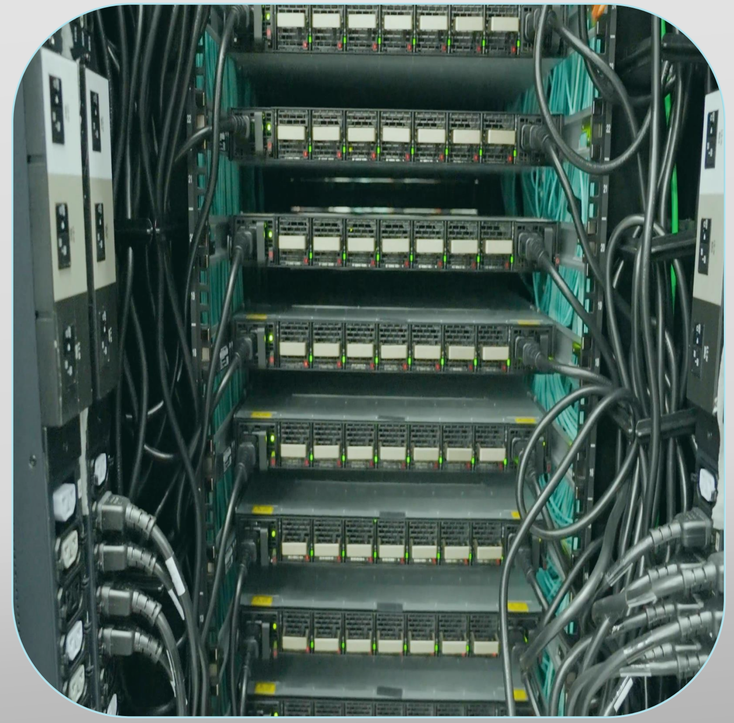
Feature	Blockchain Data Center
Primary Use	Singular purpose with supporting equipment
Cooling System	Primarily Air-cooled, small immersion and liquid to chip deployments
Power per Rack	Non-traditional racking, not fully comparable
Networking	Low bandwidth requirements, Standard Ethernet, Fiber
Location	Nearly location agnostic
Size	From a single shipping container to tens of thousands of square feet in a building(s)
Employment	10s of employees
Capital Requirements	Low millions to possibly tens of millions



ARTIFICIAL INTELLIGENCE

An **AI Factory** is a special type of data center designed to run artificial intelligence systems. These AI Factories are often built at large scale deployments compared to traditional data center capacity.

Feature	AI Factory
Primary Use	Training / Inference - Hundreds to tens of thousands of specialized GPU chips
Cooling System	Specialized Cooling
Power per Rack	50kW to 200kW per rack, 800kW demand starting in 2026 moving to 1MW+ per rack within the next few years
Networking	Specialized networking topology in-facility, large fiber count between facilities
Location	Rural locations to large cities, depending on application
Size	Tens of thousands of square feet to roughly 1 million square feet
Employment	Low hundreds of employees
Capital Requirements	Tens of millions to billions of dollars



COMPARISON OVERVIEW

Feature	Traditional	Blockchain	AI Factory
Use	Wide range	Specialized	Specialized
Cooling	Primarily air, some liquid	Primarily air, some liquid	Primarily liquid
Power Density	Low density	High Density (but different)	Very high density
Networking	High bandwidth, low latency	Low bandwidth, prefers low latency	High bandwidth, specialized in building, high fiber counts
Location	Traditional Markets	Nearly Agnostic	Depends on Application
Size	1,000 – 1M+ sqft	400 – 100,000 sqft	10,000 – 1M+ sqft
Employment	10s – 100s	10s	100s
Capital Requirements	Low $1M - $100M’s	Low $1M - $10M’s	$10M’s - $1B+

ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) refers to machines that can learn, reason, and make decisions—simulating human intelligence.

Common Examples You Know:

ChatGPT – AI that understands and generates human language
Self-Driving Cars – Vehicles using AI to detect objects, make decisions, and navigate
Medical Analysis – Analysis of medical imagery, earlier diagnosis can lead to better outcomes
Farming – Precision farming including improvement of crop yields through better irrigation, fertilization, and seeding. Experiments such as at Grand Farm
Oil & Gas – Improve the process from discovery to delivery

Where Does AI "Happen"?

Training – AI Factories with large clusters of GPUs
Inference – AI Factories or Traditional Data Centers with clusters of GPUs or traditional CPUs, possibly closer to populations

*AI doesn't live in a chip in your phone. It's powered by **AI Factories and Data Centers** —massive computing facilities built to run AI around the clock.*

LOCAL EXAMPLE

LAKE AREA TECHNICAL COLLEGE

Precision Agriculture Technology

The Precision Agriculture Technology program blends agronomy, data management, equipment technology, and business principles which prepare students for high-demand careers in today's tech-driven ag industry.

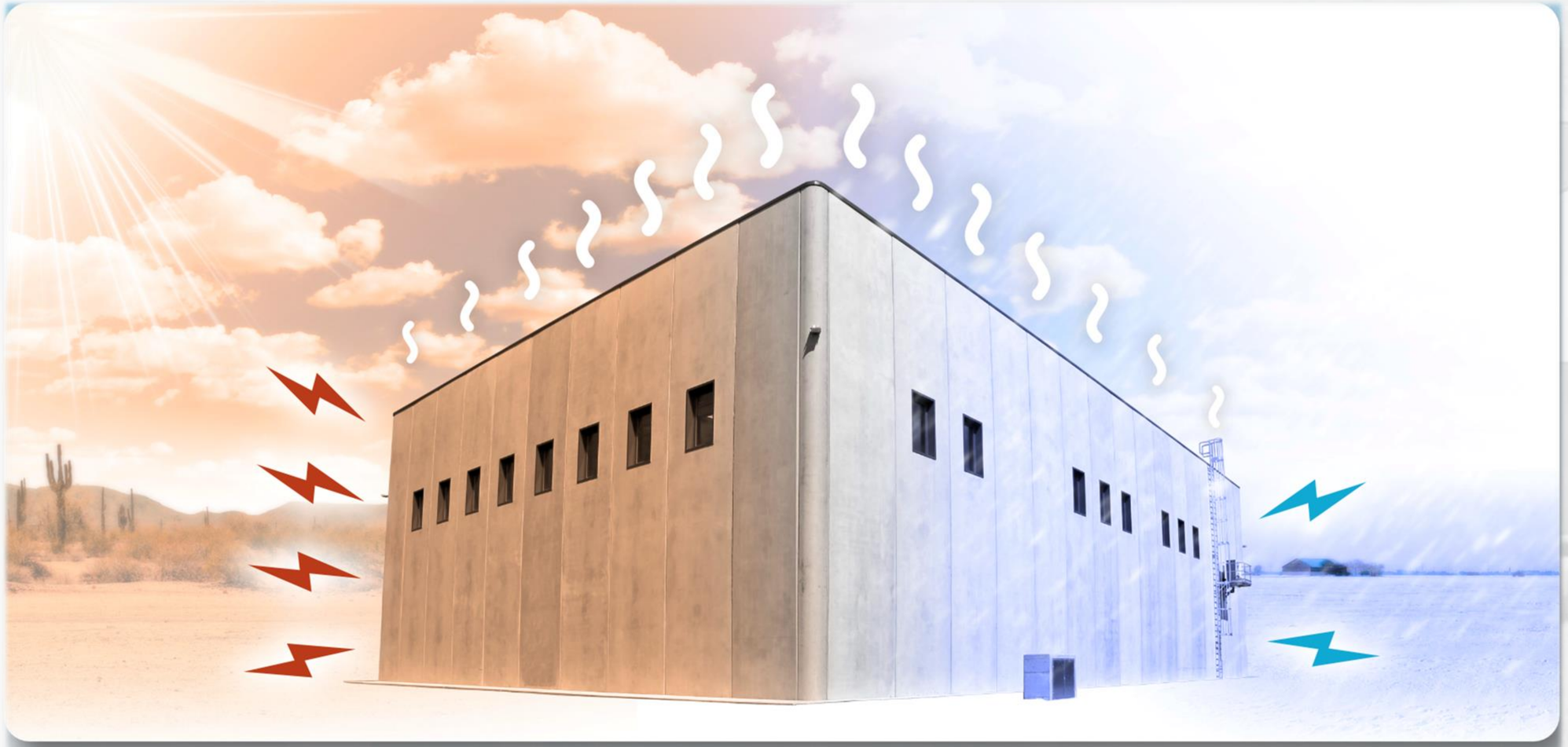
Students gain practical experience with GPS and GIS systems, drones (UAS), variable rate technology (VRT), remote sensing, and precision ag data management. Courses also cover ag equipment maintenance, ag chemicals, fertilizers, and integrated pest management, providing a well-rounded understanding of how technology connects with soil science, crop health, and environmental stewardship.

Students learn to troubleshoot ag systems, manage digital data, and make informed, data-driven decisions to optimize yields and profitability.

SEPARATING FACT FROM FICTION

WATER	POWER	JOBS	SOUND
Water use varies by design, environment	Infrastructure upgrades paid for by project; project does not cause rates to rise	200 – 250 on-site jobs when fully operational 1,200+ construction jobs	Requires adequate set backs, other buildings, walls, berms, trees, etc.

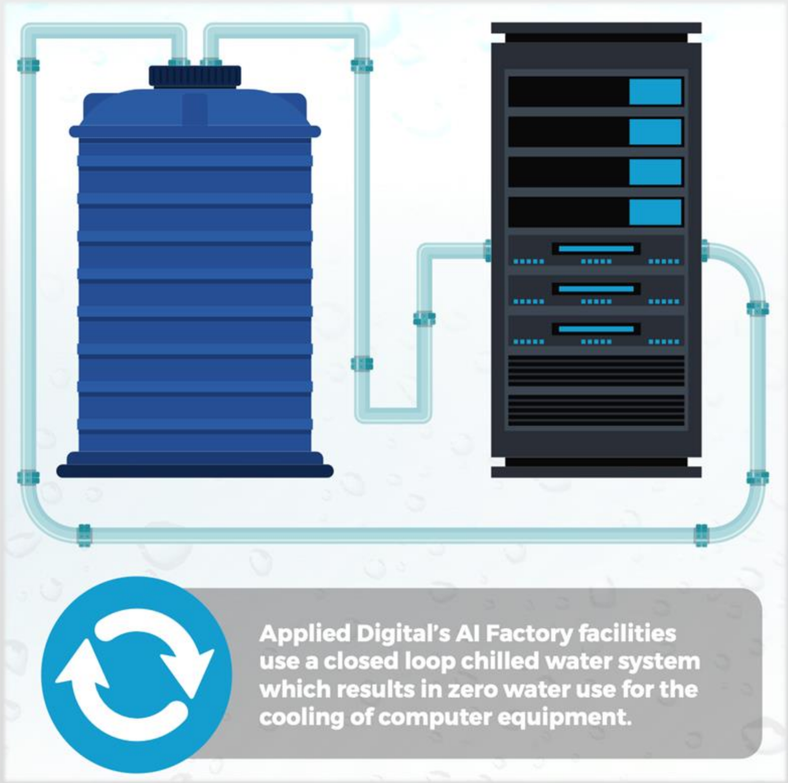
COLD CLIMATES ARE OPTIMAL FOR NATURAL COOLING

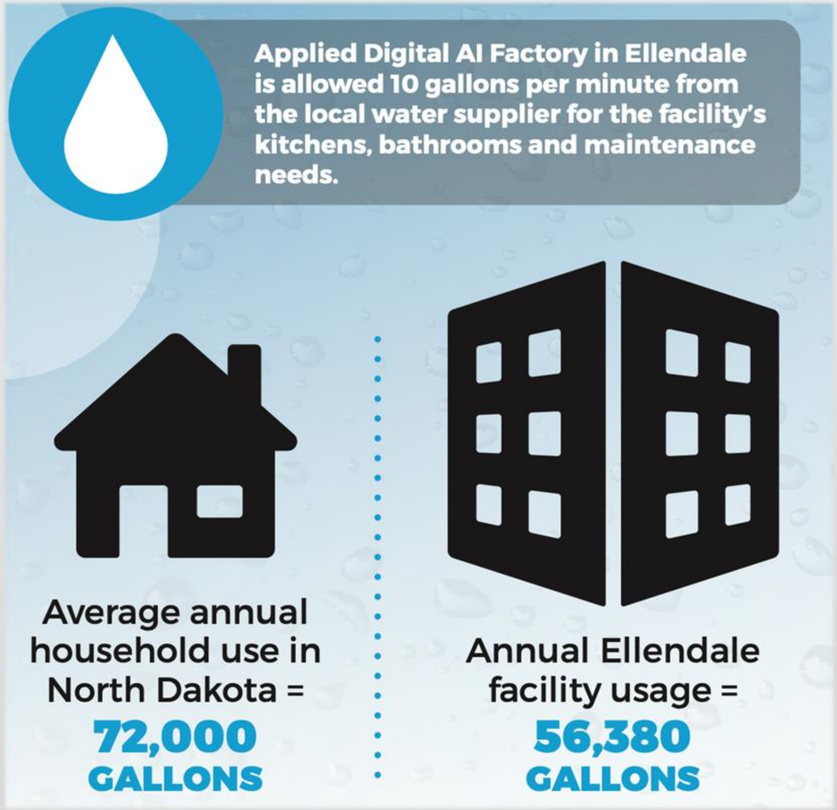


Hot Climate: MORE energy is needed to keep buildings cool while the average temperature outside is warmer.

Cold Climate: LESS energy is needed to keep buildings cool while the average temperature outside is cooler.

Smart Water Use





- The data center uses a closed loop water system for cooling, recycles water instead of consuming it, and therefore does not consume much water.
- Ellendale facility has a 10 gallon per minute water connection— which is the same as a typical house
- Expected to use the equivalent of 2/3rds of one average North Dakota home in water

ELECTRICAL INFRASTRUCTURE

- 430 MW peak consumption proposed in Deuel County, SD
- Applied Digital required to pay for its infrastructure
- Maximize use of existing electric infrastructure, improving system efficiency, benefiting all other customers
- Necessary energy capacity and infrastructure is in place with a potential for additional generation to be built for further improvement

LOWER ENERGY BILLS FOR NEIGHBORS

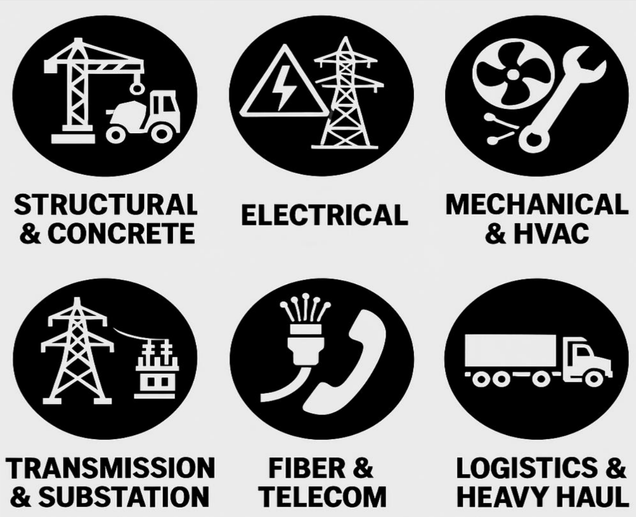
2023 operations generated $5.4 million in credits for MDU's ND customers

2024 operations generated: $7.8 million in credits for MDU's ND customers

Utilizes stranded power, resulting in savings for us and others

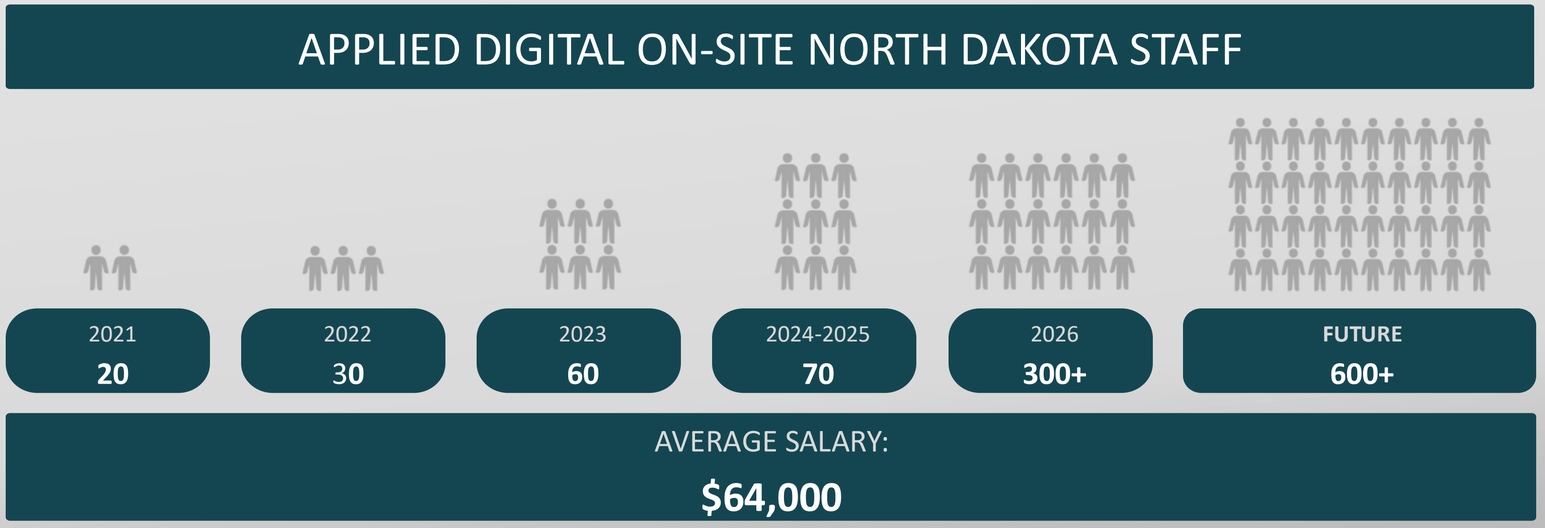
CREATING CONSTRUCTIONS JOBS

- **At peak construction 1,200+ on-site construction workers** plus hundreds off-site for pre-fabrication spanning 11 specialist trade packages
- Contractor headcount is separate from permanent staff and remote corporate teams
- A project like this proposed data center generates these economic benefits over 2 years in construction: trade workers earning $100s of million in wages & benefits and multiples more added to the local supply chain



CREATING FULL TIME JOBS

- Toronto would have over 200 full-time permanent team members working on site
- Roles span operations, security, maintenance, and high-tech careers for Applied Digital, our Security firm, and our Customer.
- We hire locally whenever possible and partner with nearby colleges
- This is for on-site employees only and does not include remote workers
- Applied Digital's North Dakota campuses are expected to employ roughly 600 workers



SOUND

- Distance
  - Impacts of noise can be reduced over distance, some facilities are completely quiet, but distance can be an important tool
- Compatible uses
  - Some data centers are like Industrial users, they shouldn’t be placed immediately next to houses, schools, churches, hotels, etc. Make sure nearby neighbors are compatible.
- Blocking
  - Walls, trees, berms, other buildings
- Working with neighbors
  - Understand potential impacts and work with the neighbors to mitigate (reroute traffic, install blocking tools, etc.)

DRIVING ECONOMIC DEVELOPMENT

Our presence in North Dakota isn’t just about data centers—it’s about boosting the local economy in meaningful ways. From new jobs and local partnerships to investments that directly benefit the community, we’re committed to making a lasting impact here

Community Investments

- Pickleball in Jamestown and Ellendale
- Family Movie Nights
- Art for Kids
- Buying Local (local tool store, lumber yard, restaurants)
- Partnering with local universities for contests, curriculum, hiring initiatives, and more
- Sponsoring local events, like the 5k Color Run to bring the community together

Economic Impact

- Building out local housing to meet the needs of our growing workforce in Ellendale
- Hundreds of construction and permanent jobs
- Improve grid utilization
- Our operations can, in some cases, lower local electricity costs by influencing utility rates.
- Over $8 billion of construction announced in ND to date

Long-Term Benefits

- Creating sustainable, high-paying jobs that support the local economy
- Encouraging local businesses to grow and thrive alongside our presence
- Fostering long-term partnerships that provide ongoing community support

ELLENDALE, ND HOUSING INITIATIVE

Applied Digital has partnered with local and state entities to address housing needs in the community surrounding its Ellendale data center project. This initiative is supported by funding from the city, Applied Digital, the State through the R-WISH program, the Bank of North Dakota Flex PACE program, and a regional developer. The collaboration aims to transform the area by developing new housing options to accommodate the growing workforce, further enhancing the community and supporting local infrastructure.

20 SINGLE FAMILY HOMES AND A 38 UNIT APARTMENT BUILDING

GIVING BACK TO THE COMMUNITIY – ELLENDALE, ND

- Quarterly free family movie nights in Ellendale
- Helped rebuild local bowling alley into a top town venue with 6 other local businesses
- Donations to local schools, nonprofits, and local causes
- Ongoing volunteer programs & open-house tours
- Applied Digital Cares program

WHY SOUTH DAKOTA

ELECTRICAL INFRASTRUCTURE

South Dakota has existing robust electrical infrastructure, renewable energy, access to fuel sources and is a net exporter of energy.

BUSINESS FRIENDLY ENVIRONMENT

Local and State Governments are supportive of sustainable business growth. No state income tax. State income tax negated by sales tax on energy.

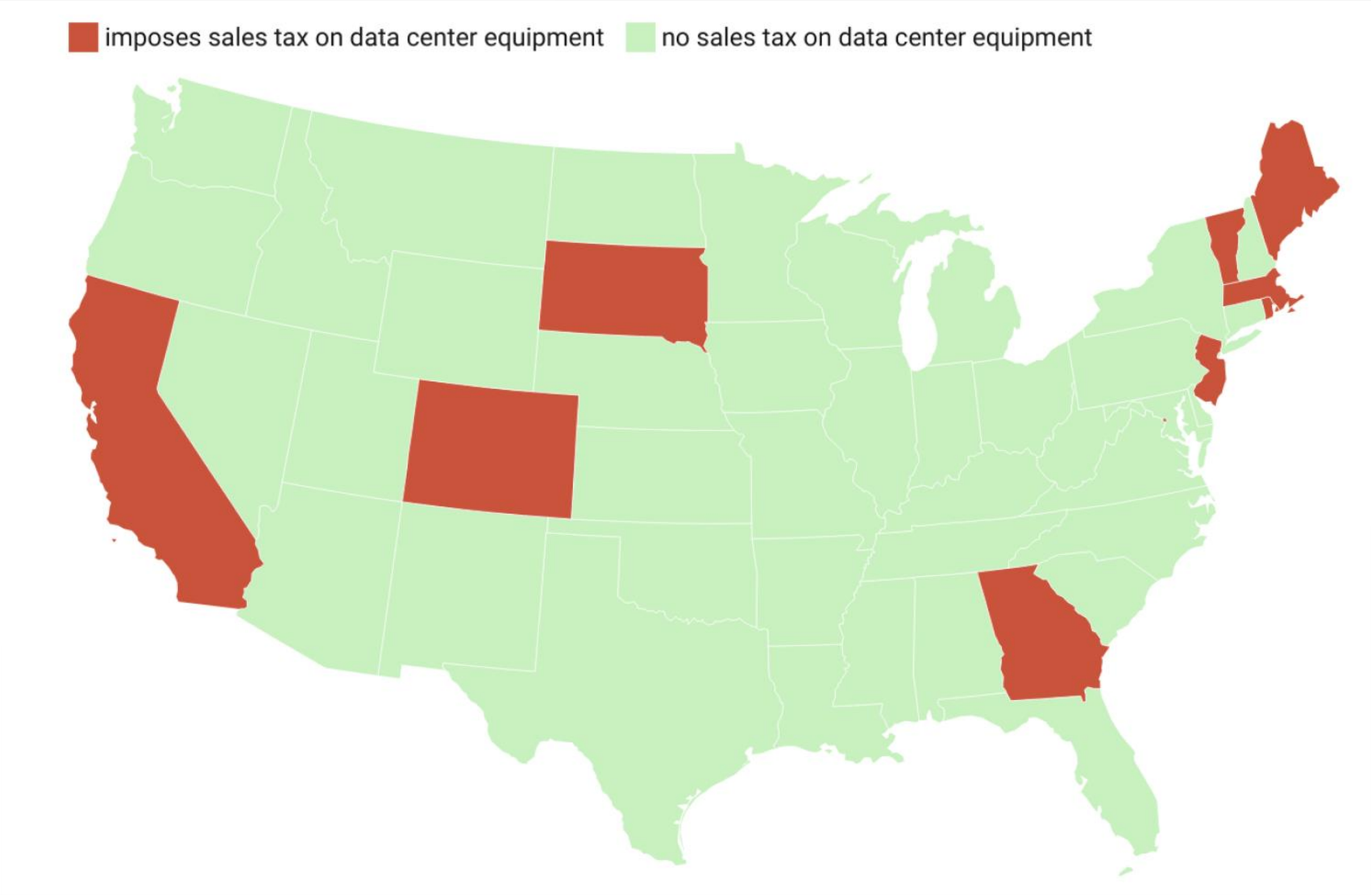
FAVORABLE CLIMATE

South Dakota’s cold weather offers roughly 220 natural cooling days per years.

QUALITY WORKFORCE

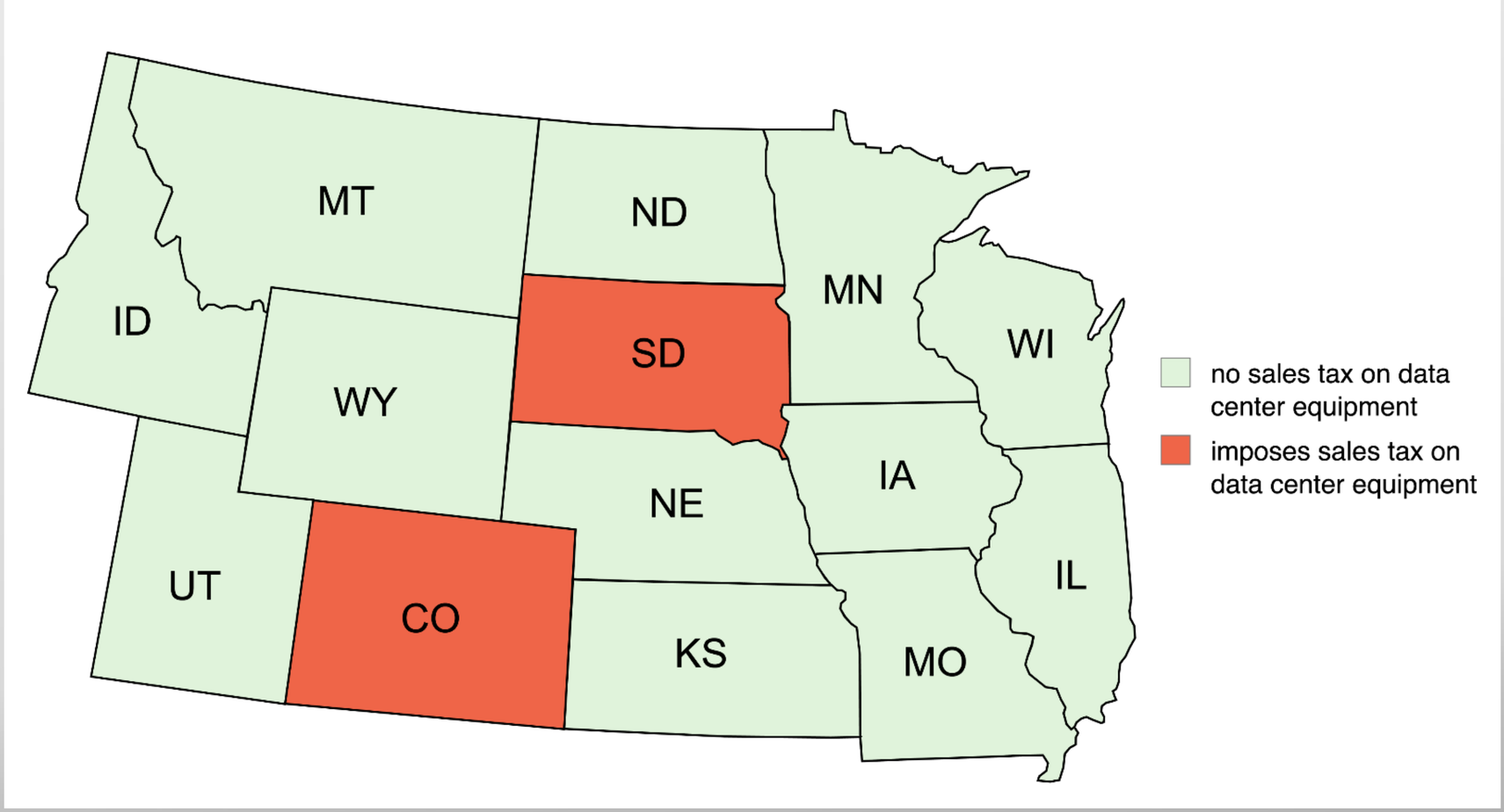
South Dakota has highly skilled, hard workers in fields that are needed within a data center such as electrical, mechanical, facilities, etc. Quick training opportunities for high-tech roles

COMPETITIVE NATURE OF US STATES



REGIONAL STATES

Of all these Midwest states, only South Dakota and Colorado do not have large, multi-billion dollar data center investments as a direct result of their tax policy.



ADDITIONAL ECONOMIC ACTIVITY

If data centers come, *economic activity comes with them*.

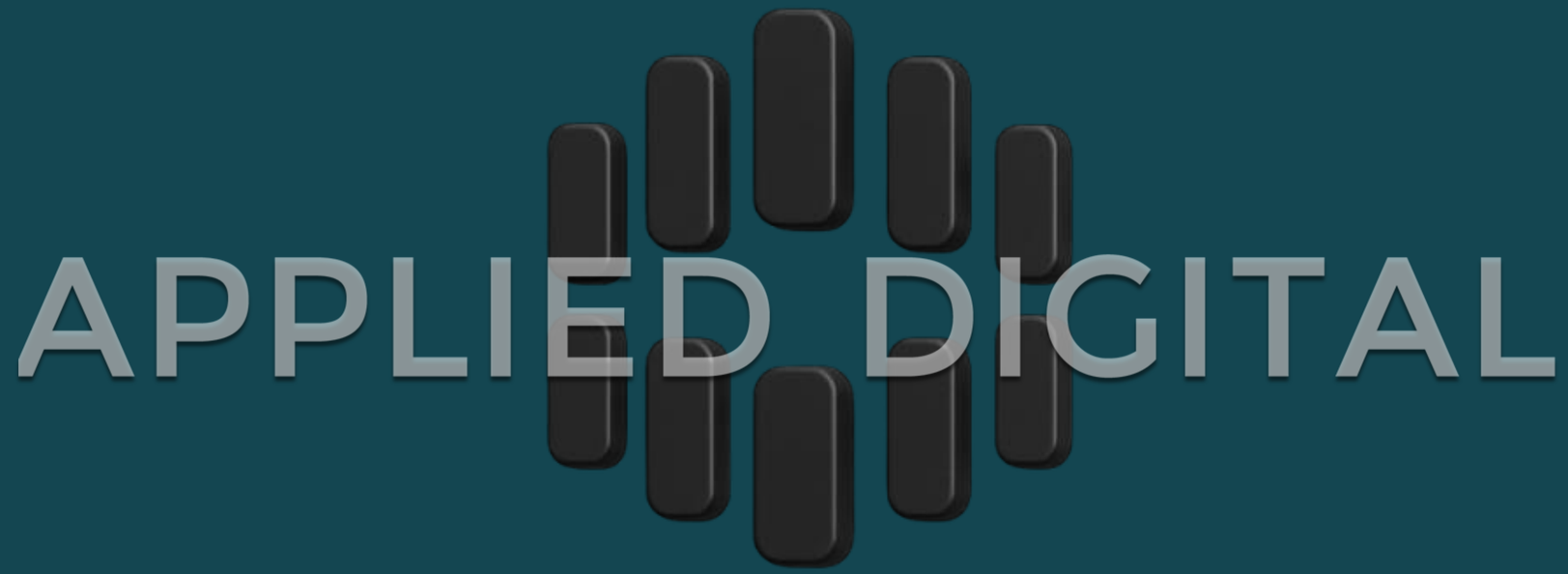
Incremental economic benefits from data centers	Here	Not Here
Income & spending by construction workers & contractors	+	0
Income & spending by data center employees	+	0
Revenue for local suppliers, lodging, and restaurants	+	0
High-tech training and experience for workforce	+	0
Make the state more attractive for tech business and any business needing low latency access	+	0

ADDITIONAL ECONOMIC ACTIVITY

If data centers come, *new tax revenue comes, too*.

Incremental tax revenue from data centers	Here	Not Here
Local real estate taxes $300M +/- in value added to Deuel County's $1B in current value	+	0
Income & spending by data center employees 200+ on-site jobs in a county with approximately 1,200 current jobs	+	0
Contractor's Excise Tax	+	0
Sales taxes on non-exempt equipment and supplies Expected $450M +/- in non-exempt equipment and supplies	+	0
Tax on energy facilities Centrally assessed and expected to be roughly $3.5M/year initially	+	0
Sales tax on energy $160M projected in first 15 years	+	0

A Tale of Two Townships



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