

Are Data Centers Just Another Industrial Asset?

Bringing some data to bear on a vital and politically charged
commercial opportunity space.

Gabriel Collins, J.D.
26 August 2026

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I have used Anthropic's Claude and OpenAI's ChatGPT to collect data and adversarially test my ideas and visually format the slides and Google's Gemini to create some images.

The views expressed herein are my own interpretations as of the date of presentation, are made in my personal capacity, and are subject to change without notice.

What We'll Cover

I

The Thundercloud Charges Up

Texas press clippings, January to August 2026: pause, moratorium, tax rollback, ban, audit.

II

What Data Centers Actually Are — and Where They're Going

The layers we argue about, the layers we forget, and Silicon Valley's own 10,000× forecast.

III

Are They Just Another Industrial Asset?

Benchmarking location, buildout velocity, and power and water against past industrial booms.

IV

The Silicon South Plains

Why the Permian baseline is different — and the acreage and capital math behind a gigawatt.

V

Making Them Better Neighbors

Water optimization, noise, sightlines, and thermal signature.

I

The Thundercloud Charges Up

The Backlash Becomes Policy

PAUSE → MORATORIUM → TAX ROLLBACK → BAN → AUDIT

01

THE TEXAS TRIBUNE / JUN 30, 2026

San Marcos becomes the first Texas city to ban data centers, testing its local control

02

THE TEXAS TRIBUNE / FEB 13, 2026

Texans are demanding their local governments push pause on data centers. Can they?

03

HOUSTON CHRONICLE / MAY 20, 2026

Sid Miller calls for data center moratorium, deepening GOP divide over construction

04

THE DALLAS MORNING NEWS / MAY 19, 2026

North Texas officials split votes on future data center development

05

SAN ANTONIO EXPRESS-NEWS / JUN 4, 2026

Hill Country residents push water utility to say no to data center

06

THE TEXAS TRIBUNE / JUN 10, 2026

Abbott recommends sweeping data center regulation, including eliminating sales tax exemption

07

HOUSTON CHRONICLE / AUG 3, 2026

Greg Abbott orders sweeping audit of Texas data centers amid power grid concerns

7

VERIFIED HEADLINES

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Verified 3 August 2026.

Sources: The Texas Tribune; Houston Chronicle; The Dallas Morning News; San Antonio Express-News. Full article URLs are recorded in the speaker notes.

II

What Data Centers Actually Are — and Where They're Going

The layers the public argues about, the layers everyone forgets, and the industry's own forecast.

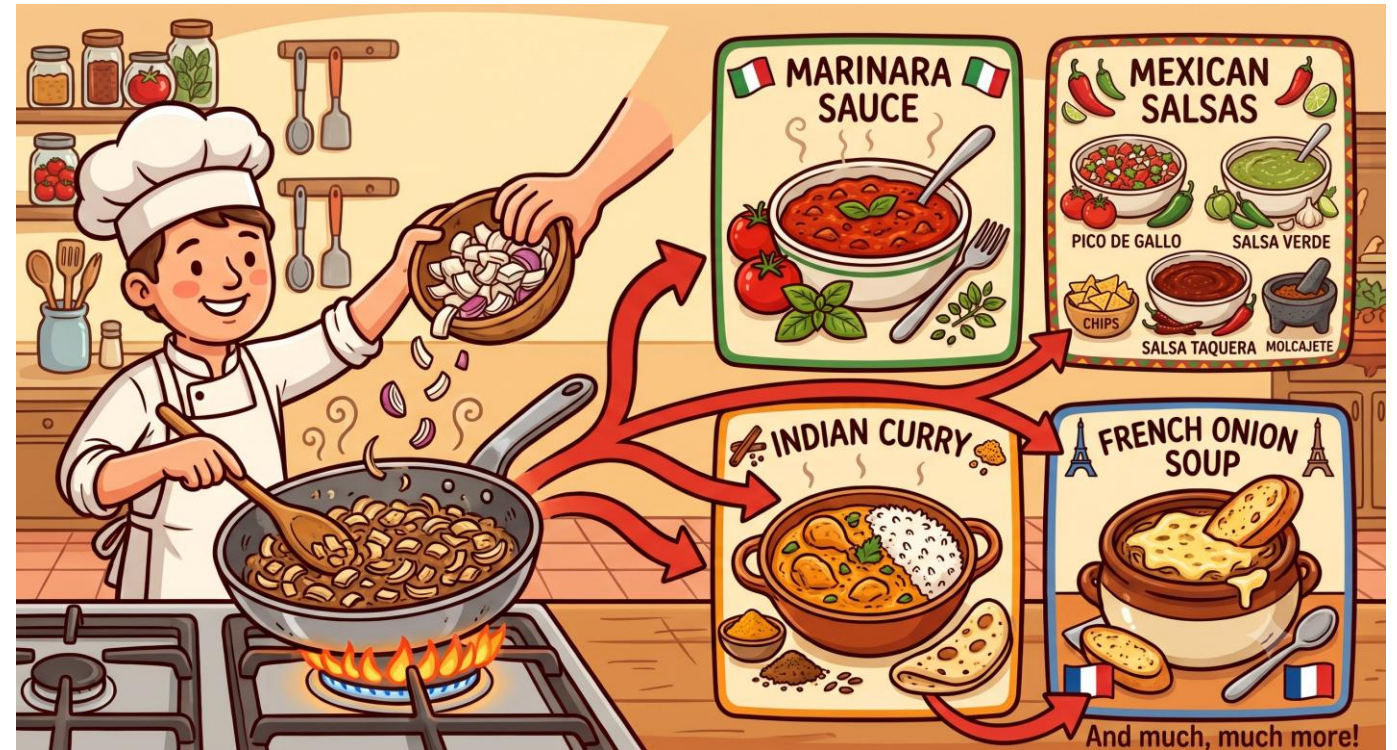
ONIONS · NOW VS. NEXT · 10,000×

Datacenters Are Like Onions

WE FOCUS ON THIS PART



AND FORGET THIS PART



Framing after Gabriel Collins, "Datacenters Are Like Onions," The Sinews of Civilization, 6 August 2026.

What Are Some Things Datacenters Do Now...And What's Likely Coming Next?

NOW



Frontier models in production, and inference already riding in the vehicle.

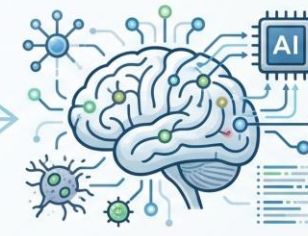
NEXT

AI: ACCELERATING SCIENTIFIC BREAKTHROUGHS



AI HELPING DISCOVER CURES FOR CANCER

- Accelerating Drug Discovery
- Analyzing Genomic Data for Precision Medicine
- Identifying New Therapeutic Targets
- Predictive Modeling for Clinical Trials



AI ADVANCING TREATMENTS FOR ALZHEIMER'S

- Early Diagnosis using AI Algorithms
- Modeling Disease Progression
- Discovering Biomarkers
- Personalizing Care and Therapy



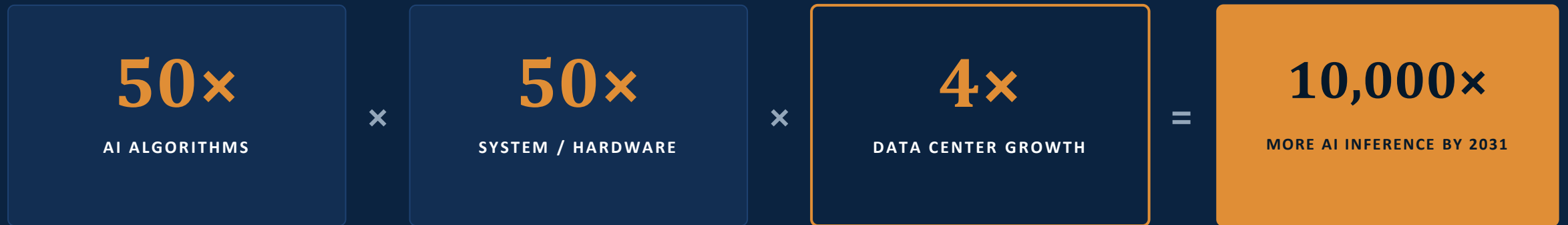
NEW FRONTIERS IN MATERIALS SCIENCE

- Designing New Materials with Unique Properties
- Optimizing Material Structures
- Accelerating Discovery of Sustainable Materials
- Modeling Quantum Behaviors

Next: discovery, diagnosis and materials science at machine speed.

Where Does Silicon Valley See AI Going?

"We conjecture that in five years 10,000x more AI inference will be done worldwide, with these gains hypothetically coming from multiplicative progress of 50x in AI algorithms, 50x in system/hardware optimization/specialization, and 4x from further data center growth."



— Computing Research Association Ideas Dinner, 27 April 2026
<https://cra.org/industry/2026/04/27/how-ai-will-reshape-computer-systems-by-2035-a-jeffersonian-dinner-in-san-francisco-about-our-10000x-future/>

For those of us in the dirt and physical asset worlds, this is the domain of highest interest.

III

Are They Just Another Industrial Asset?

Three benchmarks against the booms that built the last industrial map.

LOCATION · BUILDOUT VELOCITY · POWER AND WATER

How Do Hyperscale Datacenters Compare to Other Industrial Assets?

10%

STEEL PRODUCTION

CAGR, 1870–1944

6.1%

RAILROAD MILEAGE

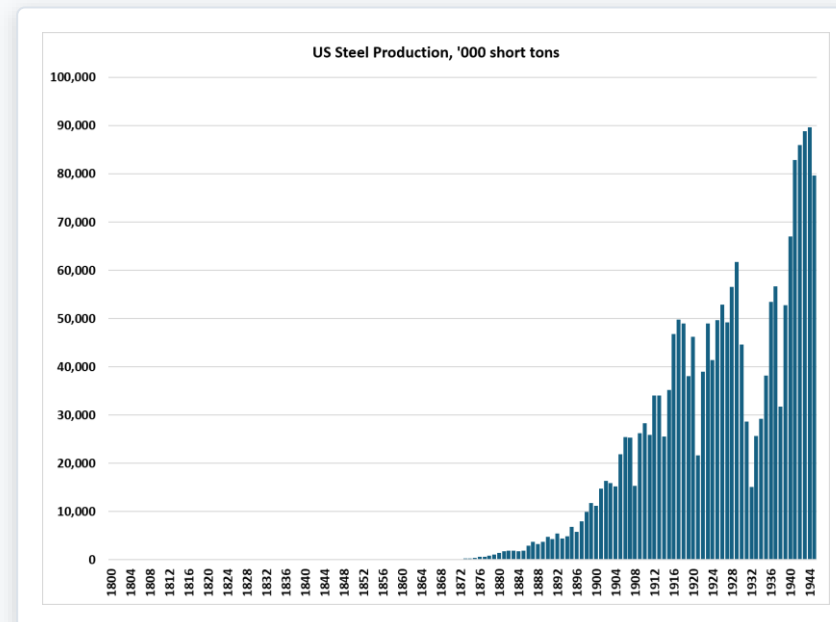
CAGR, 1840–1916

9.6%

DATACENTER CAPACITY

CAGR, 2000–2025

- Booms don't usually accelerate as they near their peak.
- But datacenters are doing just that—and we do not even know where the peak might be.
- Datacenter capacity shows big acceleration toward the back end of the curve, with capacity potentially doubling again between 2026 and 2030.
- The World War II steel surge relied heavily on capacity built 15–20 years prior that was underutilized during the Depression, then surged during World War II.



U.S. steel production, 1,000 short tons.

Methodology: starting point is a judgment call on when true “industrial scale” development commenced; endpoint is the all-time historical peak figure.

Sources: U.S. Census Bureau (Hist. Stat. 1975, 1949); NBER/FRED (2026); USGS (Data Series 140, 2024); AISI (Ann. Stat. Rep.); U.S. Dept. of State (1814); Swank (1881, 1902); Fishbein (NARA, 1973); Kennedy (1859); Allen (JEH, 1979).

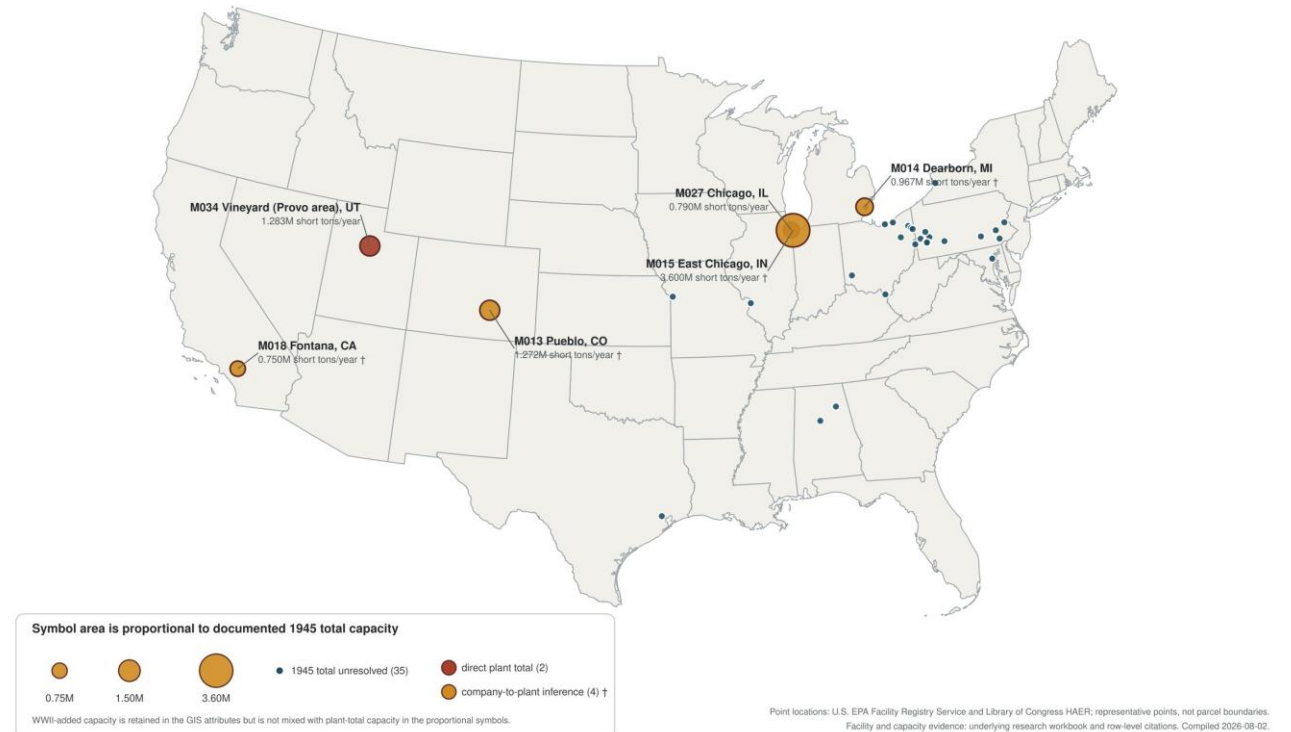
How Do Hyperscale Datacenters Compare to Other Past Industrial Boom Assets?



A “steel pig” pouring molten steel into a mold. Jones & Laughlin Steel Company, Pittsburgh, PA, 1942. U.S. National Archives and Records Administration.

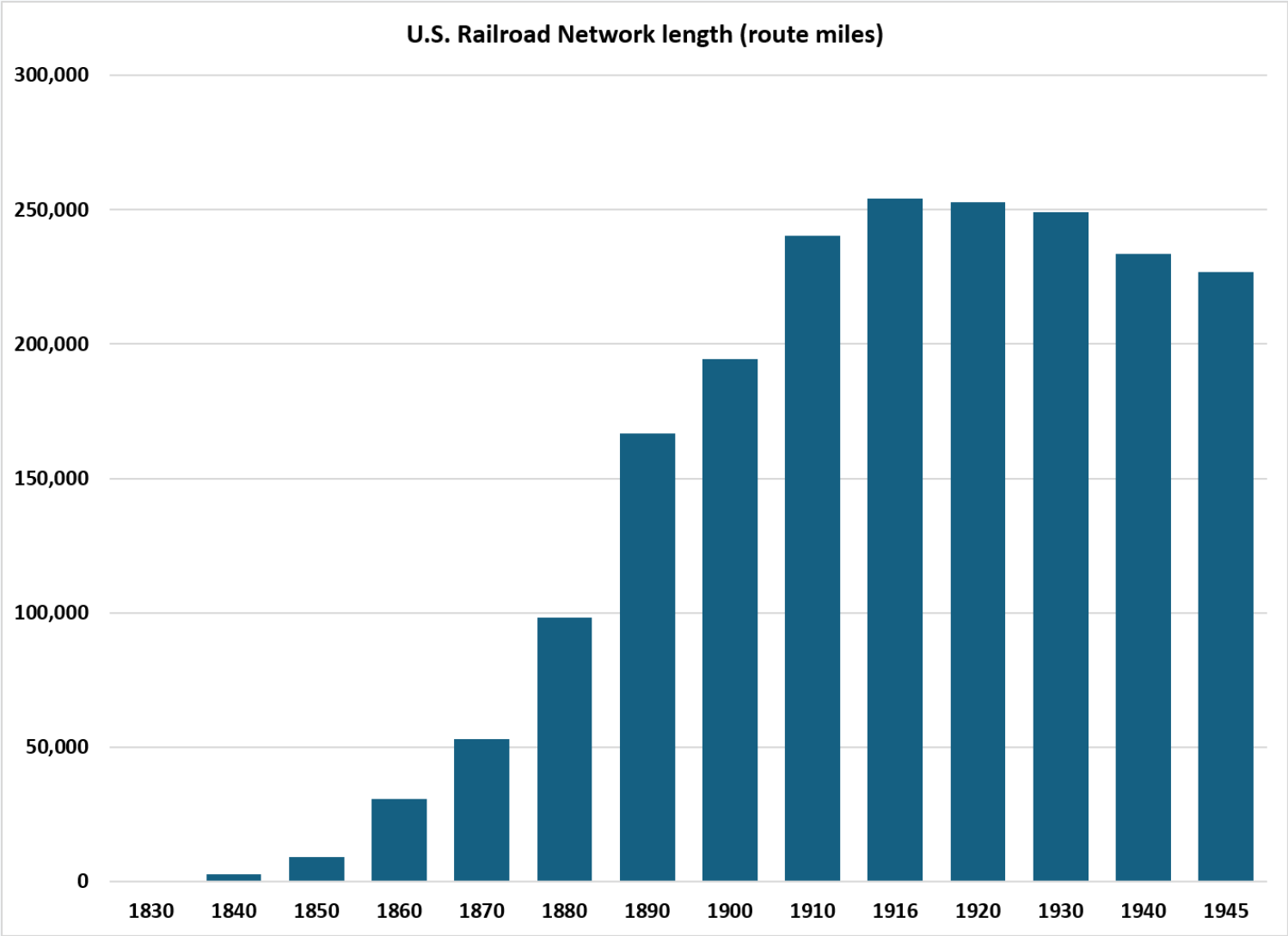
U.S. steel mills operating during World War II

Verified minimum inventory (41 facilities) • equal-area Albers projection • documented Jan. 1, 1945 raw-steel capacity



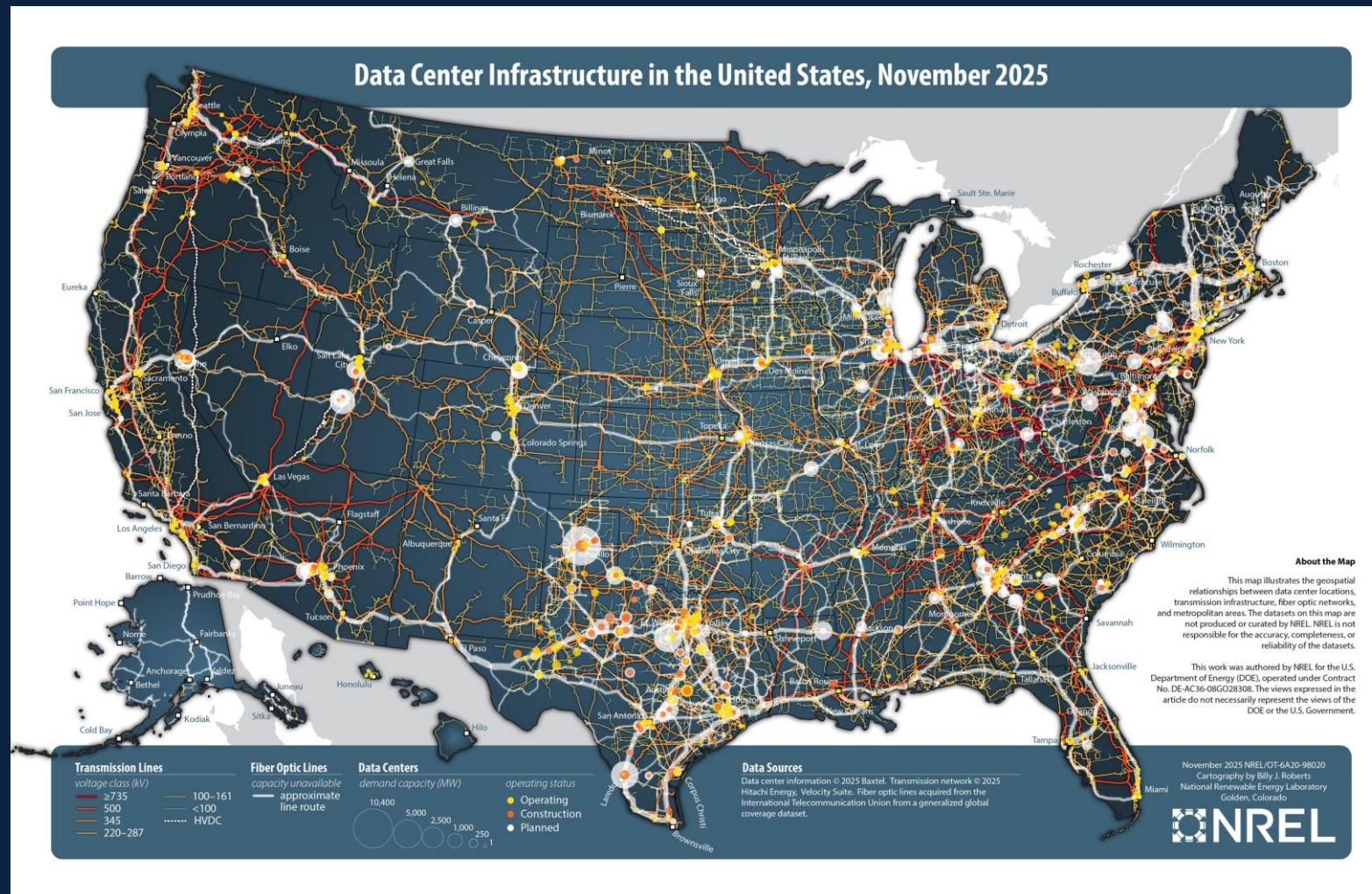
Steel plant siting context: U.S. National Park Service, <https://www.nps.gov/articles/000/pittsburgh-pennsylvania.htm>

Hyperscale Datacenters vs. Past Industrial Booms: Railroads



Source: Louis P. Cain, “Railroad Mileage and Equipment: 1830–1890,” tables Df874–881, and “Railroad Mileage, Equipment, and Passenger Traffic and Revenue: 1890–1980,” tables Df927–955, in *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*, ed. Susan B. Carter et al. (New York: Cambridge University Press, 2006), <https://doi.org/10.1017/ISBN-9780511132971.Df865-1111>; National Bureau of Economic Research, “Increases in Railroad Mileage for United States,” NBER Macrohistory Database, series A02082USA374NNBR, via Federal Reserve Bank of St. Louis FRED, accessed July 31, 2026; U.S. Interstate Commerce Commission, *Annual Report on the Statistics of Railways in the United States*, annual issues (Washington, DC: U.S. Government Printing Office, 1887–1954); and U.S. Census Bureau, “May 2023: The Transcontinental Railroad,” *History Stories*, May 2023.

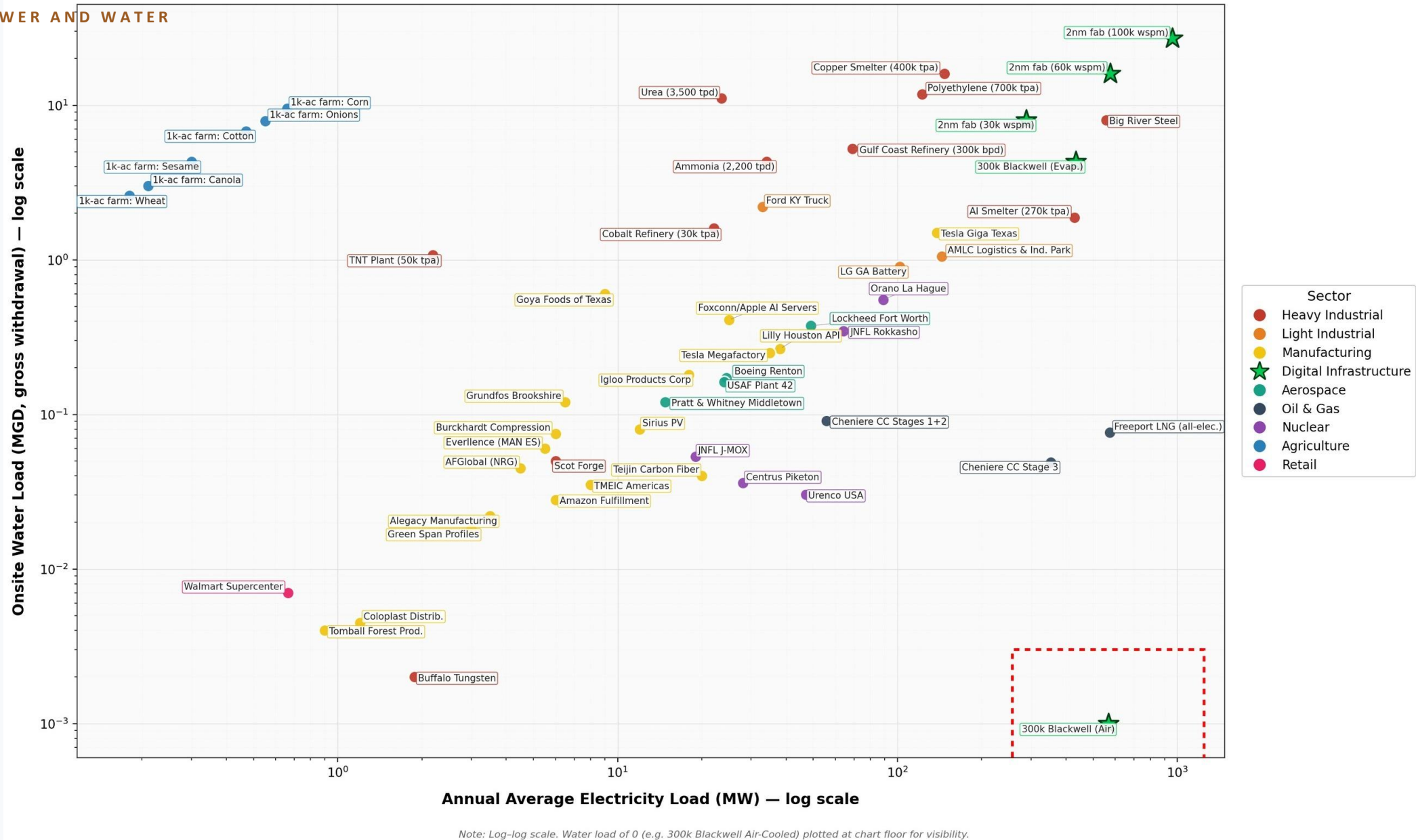
Datacenters Still Cluster, But Are More Geographically Dispersed



Source: <https://docs.nrel.gov/docs/gen/fy26/98020.jpg>

How Do Hyperscale DCs Compare to Other Industrial Assets?

BENCHMARK 03 · POWER AND WATER



IV

The Silicon South Plains

Why the Permian Basin is different — and what a gigawatt likely requires in acres and capital.

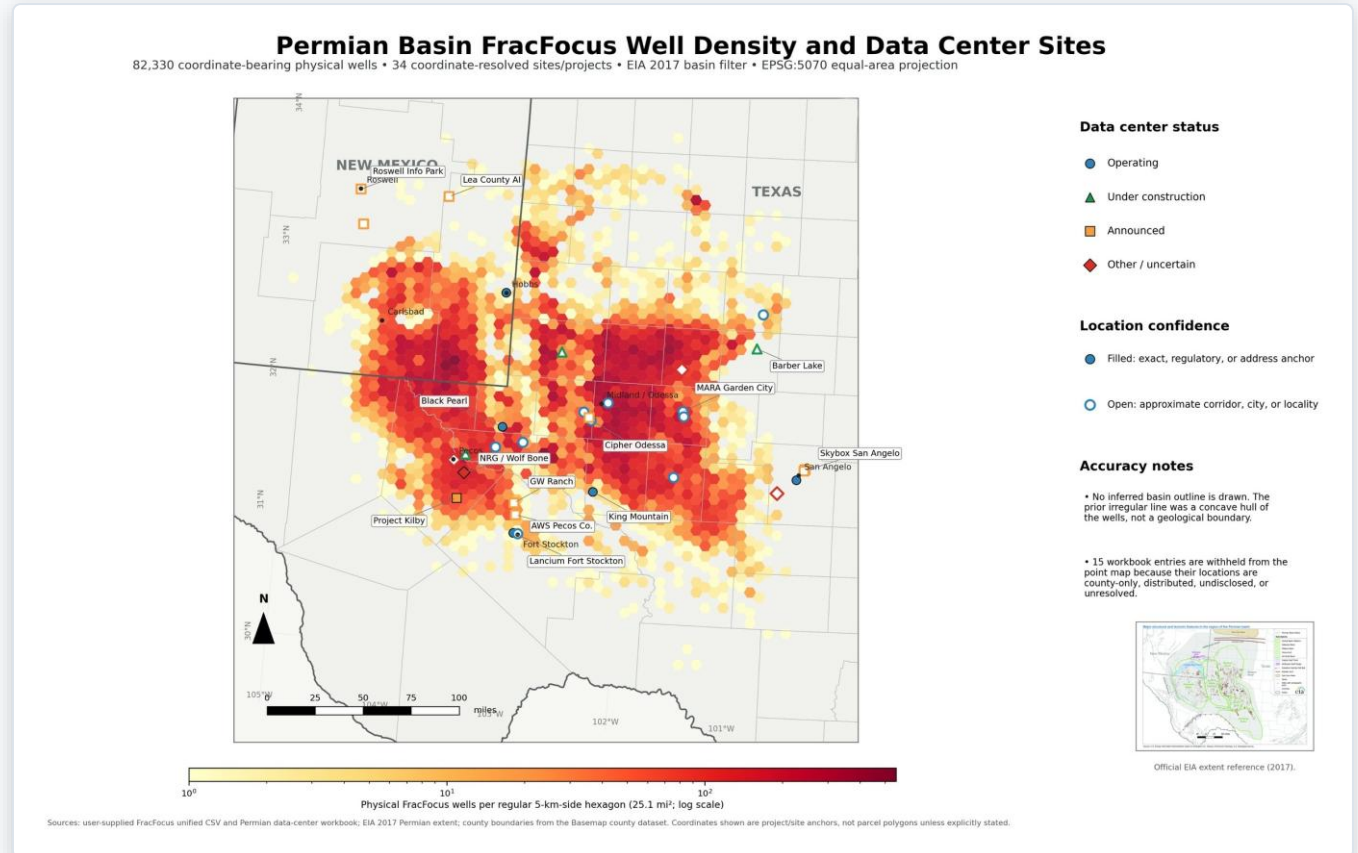
BASELINE · **LEASING MATH** · **INFERENCE SITING**

The Silicon South Plains

- Advantaged gas pricing
- Advantaged solar buildout
- Space to work with
- Less NIMBY-ism when single surface owners' lands are often measured in square miles

THE RIGHT BASELINE

The baseline for disruption is not “how does this datacenter change things in Hill Country Resort X?” but rather, “How do things change compared to the baseline of an oilfield region that collectively produces more than every country in OPEC other than Saudi Arabia?”



Permian Basin FracFocus well density and data center sites.

Datacenter Development: Leasing Implications

1–3 acres

PER MEGAWATT OF COMPUTE

Rule of thumb for the surface needed for the campus itself.

+25%

FOR LINEAR INFRASTRUCTURE

Added on top for inbound power lines, water lines, and similar.

1,250–4,000

ACRES PER GIGAWATT

Land work needed to secure each gigawatt of compute.

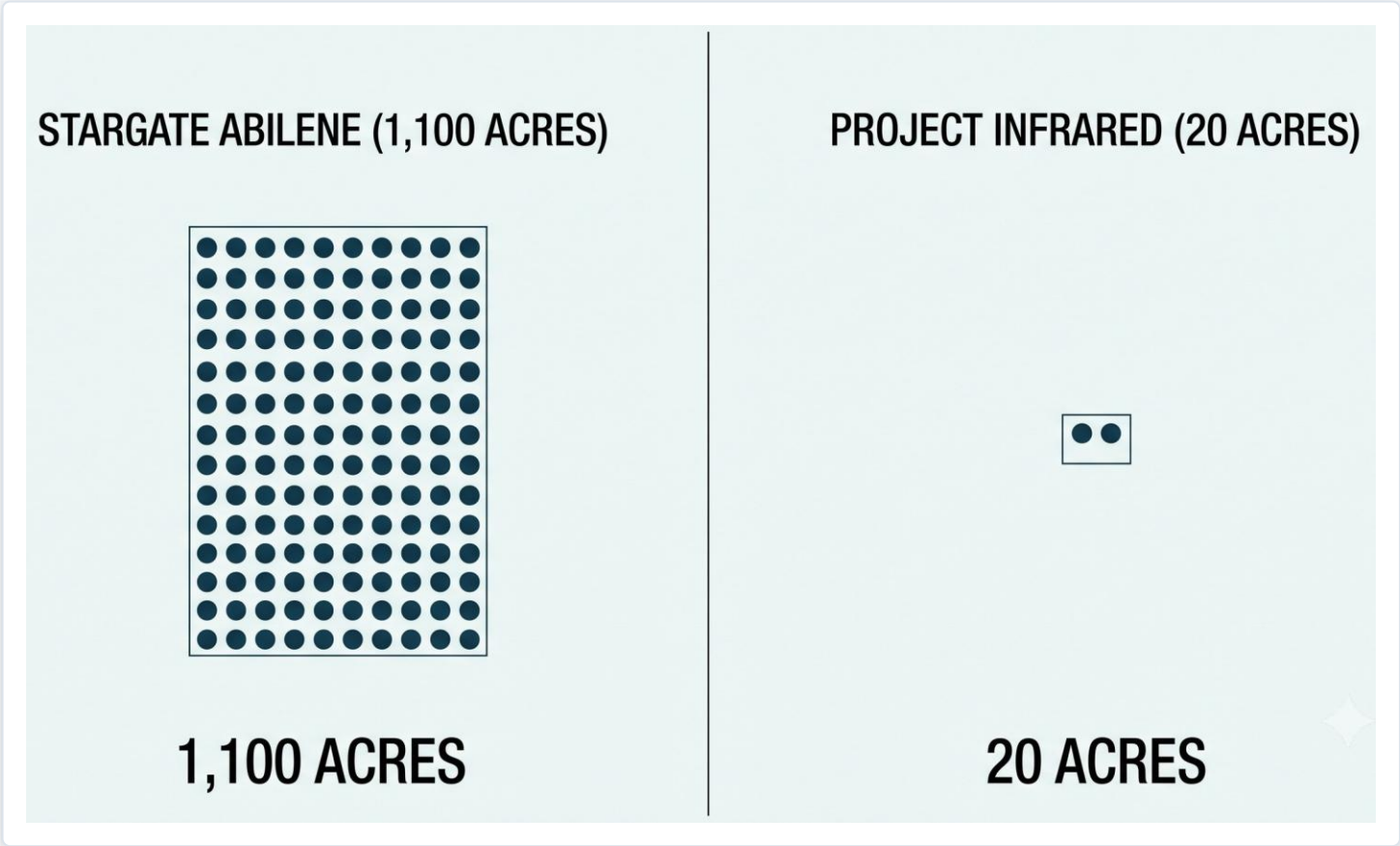
\$25 billion

CAPEX PER GIGAWATT

A gigawatt of compute can equate to this much capital.

If the project has associated wind or solar generation, those acreage figures rise dramatically.

Inference Datacenters: Physically Smaller But Steep Growth Ramp



Inference hardware: NVIDIA Blackwell NVL72 rack.

55×
SITE FOOTPRINT RATIO
Stargate Abilene (1,100 acres) vs. Project Infrared (20 acres).

Sources: <https://www.reporternews.com/picture-gallery/news/2025/09/25/inside-abilenes-massive-1100-acre-500-billion-project-stargate-texas-newspaper/86332564007/>; <https://www.everythinglubbock.com/news/local-news/deal-between-leda-and-data-center-company-corva-discovered/>; <https://cdn.wccftech.com/wp-content/uploads/2024/10/NVIDIA-Blackwell-AI-Foxconn-Server-NVL72-1920x1039.png>

V

Making Them Better Neighbors

The mitigation actions that can decide whether a campus is accepted or fought.

WATER · NOISE · SIGHTLINES · THERMAL

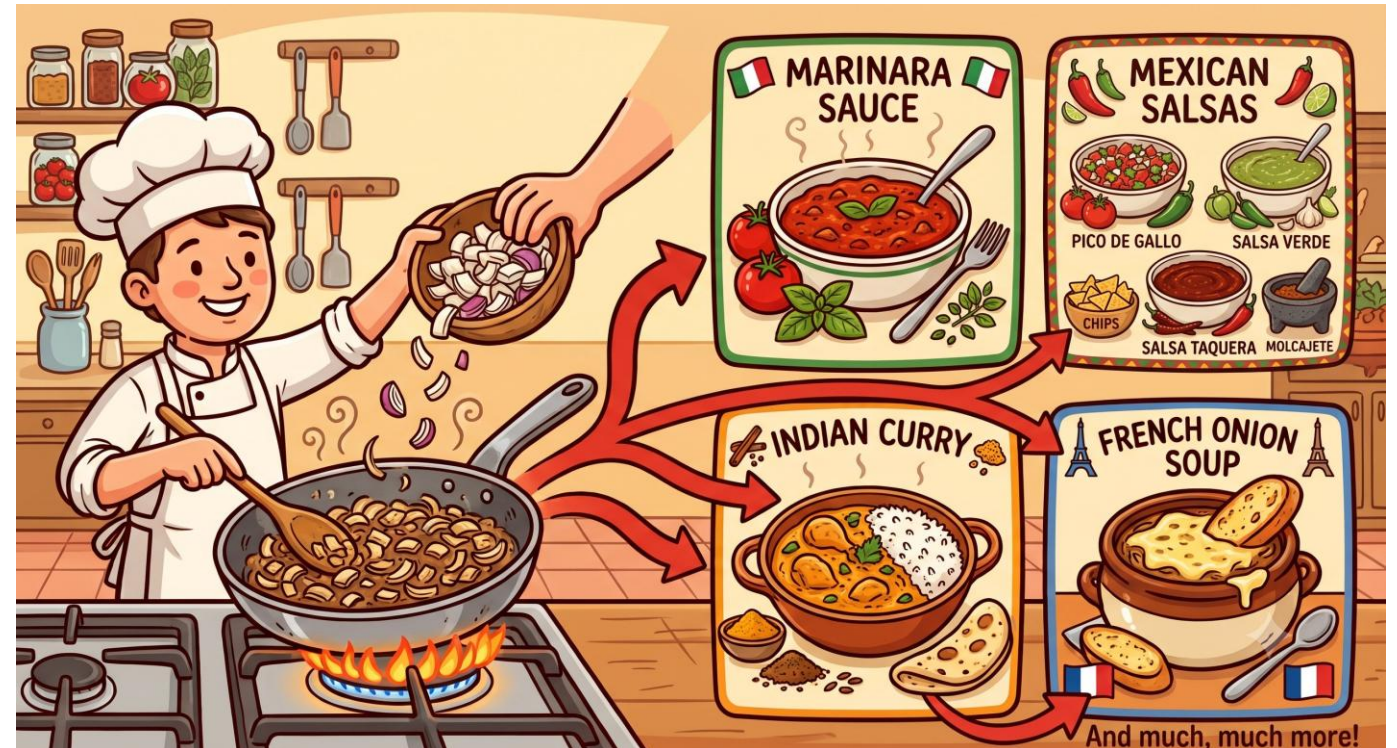
Fewer Tears, Great Food

FEWER TEARS



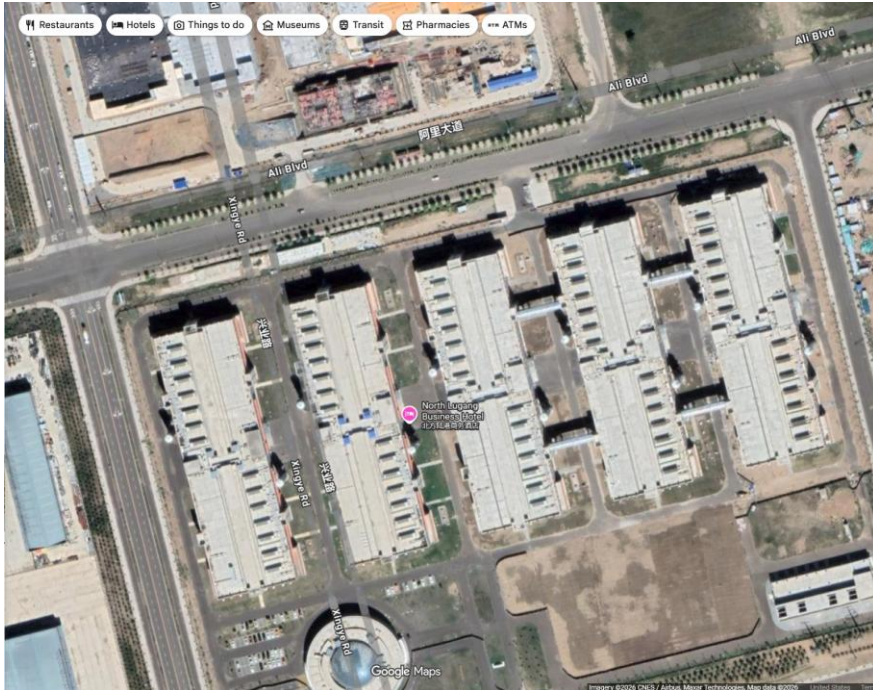
The point of mitigation is not to stop cutting onions. It is to get the meal without the tears.

GREAT FOOD



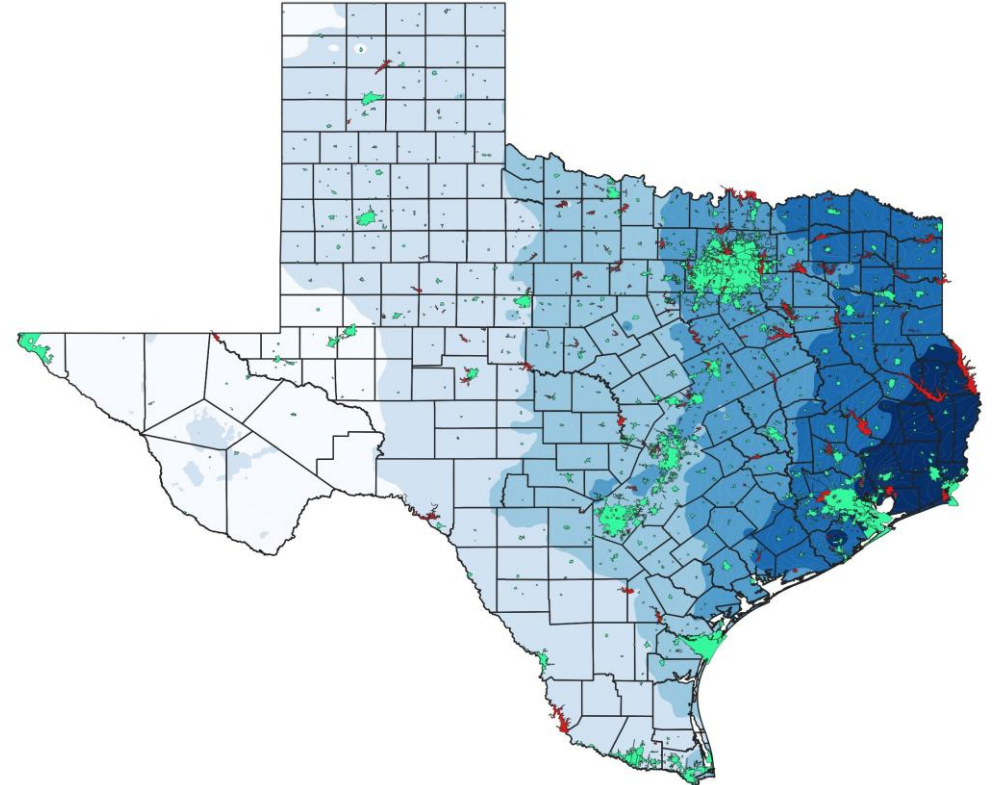
Water Optimization

A WORKING EXAMPLE



- Alibaba Data Centers in Ulanqab, China (40.98, 113.24)
- Most of year the facility uses air cooling
- During the warmest months, they use indirect evaporative cooling

TEXAS CONTEXT: PRECIPITATION GRADIENT WILL AFFECT COOLING CHOICES



Noise Mitigation

×

THE LITIGATION PATH

Case 1:26-cv-01694 ECF No. 1, PageID.1 Filed 05/26/26 Page 1 of 20

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MICHIGAN

LINDY VALENZUELA and JOHN
VALDES, on behalf of themselves and all
others similarly situated,

Plaintiffs,

vs.

ALLIANCE CLOUD SERVICES, LLC,

Defendant.

Civil Action No.
Hon.
**CLASS ACTION COMPLAINT AND
JURY DEMAND**

INTRODUCTION

1. Plaintiffs Lindy Valenzuela and John Valdes, on behalf of themselves and all others similarly situated, bring this class action against Defendant Alliance Cloud Services, LLC (“Defendant”), which owns and operates the data center located at 415 E Prairie Ronde Street, Dowagiac, Michigan 49047-1348 (hereinafter the “Data Center”).

2. Through its operation of the Data Center, Defendant has emitted, and continues to emit, unreasonable and excessive noise onto Plaintiffs’ property, causing property damage through nuisance and negligence.

PARTIES

3. At all times relevant hereto, Plaintiff Lindy Valenzuela is a citizen of Michigan who has owned and resided at her home located at 301 Yonkers Ave, Dowagiac, MI 49047.

Source: <https://www.ailsoundwalls.com/project/ail-sound-wall-panels-slide-into-existing-steel-structure-to-quiet-ntt-data-center-in-texas/>

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THE ENGINEERING PATH

A photograph showing a series of large, light-colored, perforated sound wall panels. These panels are being slid into a pre-existing dark steel frame structure. The structure appears to be a raised walkway or platform. The background shows a clear blue sky and some industrial buildings in the distance.

NTT TX4 Datacenter, Garland, TX — sound wall panels slid into the existing steel structure.

23



MITIGATION • SIGHTLINES

Visual Mitigation

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Thermal Mitigation



Source: <https://www.dvidshub.net/image/6607975/1-25th-arb-welcomes-spring-with-aerial-gunnery-range>

Thank You

Gabriel Collins, J.D.

Baker Institute for Public Policy-- <https://www.bakerinstitute.org/expert/gabriel-collins>

The Sinews of Civilization-- gabrielcollins.substack.com

Further Reading

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