

Case Study

Matrix Data Center Campus



Sulfur Springs, Texas

Executive Summary

The Matrix Data Center Campus in Sulphur Springs, Texas, marks a transformative leap in sustainable AI infrastructure, which is spearheaded by MSB Global Services (MSB is part of the company's branding and is NOT an acronym). The Matrix Campus spans 1,677 acres on a former coal mine site, this Hyperscale "Data Center Farm" will house 30 AI-Optimized facilities delivering a staggering 3 GW (Gigawatt) of critical IT power. Groundbreaking began in June 2025 with initial operations slated for Q3 2026, the \$18 billion Project leverages innovative microgrids (localized self-contained electric power system), direct-to-chip cooling, and net-zero energy strategies to meet exploding demands for AI training and High-Performance Computing (HPC). With community concerns over water scarcity, the campus promises economic revitalization through thousands of jobs and over \$100 million in annual tax revenue. This Case Study examines the Project's Strategic Design, phased rollout, and dual-edged impacts, positioning Sulphur Springs as a blueprint for digital expansion in rural America.

Introduction to MSB Global and the Project

MSB Global Services, a Dallas-based developer specializing in Hyperscale Data Centers, launched the Matrix Data Center Campus in early 2025 to capitalize on East Texas's untapped potential for AI-driven growth. The Project reimagines a 1,677-acre parcel within a 5,000-acre Matrix Business Reserve (land donated from a shuttered coal

mine) as a Tier III-Certified Hub (99.982% Uptime) for Large Language Models (LLMs) (currently the most important and powerful for of AI), cloud scalability, and NVIDIA GB300 GPU workloads. The campus addresses the global need for **low-latency, high-density computing while prioritizing sustainability through fuel cell microgrids and geothermal integration**. Construction commenced in February 2025, with a public-private partnership involving the City of Sulphur Springs and Hopkins County ensuring community buy-in. Full build-out by 2029 will establish it as one of the largest Net-Zero AI campuses worldwide, underscoring MSB's vision for "Green Hyperscale" innovation.

Location and Strategic Importance

Located in Hopkins County, Sulphur Springs, about 90 miles east of Dallas, combines rural affordability with metro-adjacent advantages. The site's former strip mine status provides vast, flat terrain ideal for rapid scaling, while its position in the ERCOT (Electric Reliability Council of Texas) grid offers access to diverse energy sources. Proximity to Tier 1 carriers (there are only ~14 true Tier 1 Carriers globally) like Zayo, Lumen, and AT&T ensures robust connectivity, with a grid-tied 345 kV Oncor transmission line and onsite substation mitigating urban power constraints.

Key locational strengths include:

- ✓ Energy Access: Bridge power via onsite microgrids until full grid integration by 2028, blending renewables and natural gas.
- ✓ Sustainability Edge: Geothermal reservoirs and solar potential support net-zero goals in a region with abundant renewables.
- ✓ Logistics and Talent: Easy highway access (I-30 corridor) and a growing tech workforce from nearby Dallas, plus incentives like a 35% tax abatement for 10 years.
- ✓ Economic Incentives: \$18 billion investment leverages local land gifts and abatements to fuel community reinvestment.

These elements make the campus a magnet for Hyperscalers seeking resilient, AI-ready infrastructure away from coastal vulnerabilities.

Project Specifications

The Matrix Campus employs a modular "build-to-suit" model, with each of the 30 buildings designed for 100 MW of critical IT load. Standardized warm-shell (Powered Shell or Spec Shell) construction enables quick tenant customization, emphasizing AI efficiency.

Aspect	Campus Total	Building Specs
Size	1,677 acres (30 buildings)	278,000 sq ft each (20' ceilings, tilt-up concrete)
Power Capacity	3 GW critical IT load	100 MW per building
Data Hall Space	~8.3M sq ft total	~100,000 sq ft per building
Redundancy	N+1 electrical/mechanical, Tier III	100% uptime via microgrid backup
Cooling	Direct-to-chip liquid & immersion	PUE (Power Usage Effectiveness) 1.3 (air-cooled chillers)
Connectivity	Diverse Tier 1 fiber networks Carrier-neutral, low-latency access	

Advanced features include **Immersion-Cooled Tanks** for GPU clusters and onsite 3 GW energy generation, ensuring scalability for LLM training.

Construction and Development Process

Development will unfold in phases to balance speed and sustainability. Phase I (395 acres) broke ground in June 2025 after February site prep, including Trinity Road upgrades and utility trenching. By October 2025, land clearing was underway, with the first 100 MW building on track for Q3 2026 delivery.....powered initially by a **Bloom Energy Fuel Cell Microgrid**. Subsequent 100 MW facilities will roll out monthly, achieving 800 MW by late 2026. Phase II (780 acres) targets 1,200 MW by Q4 2027, with full 3 GW online by Q2 2028 and campus completion in 2029. MSB coordinates with local authorities for an onsite fire station, parks, and housing, while pre-leasing at \$105 Triple-Net supports turn-key staffing (Triple Net means Tenant pays Property

Taxes, Insurance and Maintenance). This iterative approach allows real-time adjustments, such as enhancing geothermal ties for Phase II.

Challenges and Solutions

The Project's scale amplified rural development hurdles:

- ✓ Power Gaps: ERCOT's initial shortfall for 3 GW demands. Solution: Microgrid bridge (fuel cells, batteries) until 2028 grid-tie, with 50% renewables via solar, geothermal, and carbon-captured gas.
- ✓ Water Scarcity: AI cooling could strain local aquifers in drought-prone East Texas. Solution: Efficient 4 gallons/day per data hall design, city-supplied water commitments, and non-reporting exemptions navigated through transparency pledges.
- ✓ Site Remediation: Abandoned mine hazards like subsidence. Solution: Geotechnical surveys and reinforced foundations, transforming liabilities into geothermal assets.

These strategies have sustained momentum, with no reported delays as of the Case Study.

Economic and Environmental Impact

Economically, the campus injects vitality into Sulphur Springs' 16,000 residents. It will generate 7,000 construction jobs and 1,500 permanent IT roles, alongside \$18 billion in investments yielding over \$100 million yearly in taxes.....enough to refund property levies and upgrade streets. Environmentally, net-zero zero-carbon microgrids, renewable energy credits, and low-water cooling target LEED equivalence, though water debates persist amid unmandated reporting. Broader ripple effects include tech ecosystem growth, positioning East Texas as an AI alternative to urban hubs.

Future Outlook

As AI proliferates, the Matrix Campus has the ability to expand to 5,000 acres, incorporating Quantum-Ready upgrades (Cryogenics Cooling, EMI Shielding, Quantum Networking) and Edge Nodes (small to medium sized Data Centers). By 2030, it may host 20% of regional Hyperscale demand, exporting its net-zero model globally. Partnerships with NVIDIA and energy firms signal longevity, buffering against grid volatility.

Conclusion

The Matrix Data Center Campus is a bold rural reinvention, converting a coal mine relic into a 3 GW AI powerhouse that balances innovation with stewardship. MSB Global's execution, fusing microgrids and efficient cooling, navigates challenges to deliver scalable, sustainable capacity. While water concerns underscore the need for vigilant oversight, the Project's \$18 billion promise heralds Sulphur Springs' ascent as a digital frontier. In an era of AI-fueled energy hunger, Matrix sets a precedent.....Hyperscale need not compromise the heartland's resilience.