

# Big Star Land Acquisition Market Validation Overview

## AI Demand, Grid Constraints, and the Strategic Value of Power-Ready Land

### 1. AI Demand Is Reshaping Electricity Markets

Artificial intelligence, large-scale data centers, and digital infrastructure are driving a structural shift in electricity demand. Unlike prior technology cycles, AI workloads require continuous, high-density power at unprecedented scale. As a result, electricity availability — not compute — has emerged as the primary constraint to deployment.<sup>1–5</sup>

- U.S. electricity demand is expected to reach record highs in 2025–2026, driven in part by AI data centers and digital infrastructure.<sup>1,2</sup>
- The U.S. Department of Energy has indicated domestic data center electricity consumption could double or triple by 2028.<sup>3</sup>
- EPRI projects U.S. data centers may represent between 4.6% and 9.1% of total U.S. electricity consumption by 2030.<sup>4</sup>
- The International Energy Agency estimates global data center power demand could more than double to approximately 945 TWh by 2030.<sup>5</sup>
- Goldman Sachs Research forecasts global data center power demand growth of approximately 165% by 2030 versus 2023 levels.<sup>6</sup>

### 2. Grid Constraints Create a Power-Ready Land Premium

The rapid increase in electricity demand has outpaced grid expansion and interconnection timelines. Utilities and electric cooperatives now prioritize projects that demonstrate credibility, speed, and long-term load certainty. This dynamic has shifted value upstream — from finished facilities to land with secured, deliverable power.<sup>2,7–10</sup>

- Interconnection queues across the U.S. have lengthened materially, often extending multiple years.<sup>7</sup>
- Established data center markets are increasingly constrained by power availability, pushing development to new regions.<sup>8</sup>
- Commercial real estate firms report growing demand for large, power-ready parcels capable of supporting 100–300+ MW deployments.<sup>9</sup>
- Land pricing is increasingly influenced by megawatt capacity and time-to-power rather than acreage alone.<sup>9,10</sup>
- Utilities favor counterparties with proven execution capability and existing infrastructure relationships.<sup>7,8</sup>

## Sources & References

1. U.S. Energy Information Administration (EIA), Short-Term Energy Outlook – <https://www.eia.gov/outlooks/steo/>
2. U.S. Energy Information Administration (EIA), Electric Power Monthly – <https://www.eia.gov/electricity/monthly/>
3. U.S. Department of Energy (DOE), Data Centers and Energy Efficiency –  
<https://www.energy.gov/eere/buildings/data-centers-and-energy-efficiency>
4. Electric Power Research Institute (EPRI), Powering Intelligence –  
<https://www.epri.com/research/products/000000003002028433>
5. International Energy Agency (IEA), Electricity 2024 – <https://www.iea.org/reports/electricity-2024>
6. Goldman Sachs Research, AI, Data Centers and the Power Demand Surge –  
<https://www.goldmansachs.com/insights/pages/ai-data-centers-and-the-power-demand-surge.html>
7. McKinsey & Company, How Data Centers and the Energy Sector Can Grow Together – <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/how-data-centers-and-the-energy-sector-can-grow-together>
8. CBRE, North America Data Center Trends – <https://www.cbre.com/insights/books/north-america-data-center-trends>
9. Cushman & Wakefield, Global Data Center Market Comparison –  
<https://www.cushmanwakefield.com/en/insights/global-data-center-market-comparison>
10. JLL, Global Data Center Outlook – <https://www.us.jll.com/en/trends-and-insights/research/data-center-outlook>